UNIVERSITY OF ADELAIDE LIBRARY
11.12.97

THE DEVELOPMENT OF AFFECTIVE ORGANISATIONAL COMMITMENT

Karen Beck

B.Sc. (Hons.) (Adelaide)

Thesis submitted in fulfilment of the requirements

for the Degree of Doctor of Philosophy

Department of Psychology

The University of Adelaide

August 1997

Table of Contents

Page

List of Figures. (x)

List of Tables. (xi)

Summary. (xiv)

Statement. (xvii)

Acknowledgements. (xviii)

Chapter 1. Introduction: Themes in the Organisational Commitment Literature.

1. The History of Organisational Commitment. 1
2. The Study of Organisational Commitment. 3
   - (i) Conceptual Issues in the Study of Organisational Commitment. 3
     - (a) The attitude-behaviour debate. 3
     - (b) The dimension debate. 3
     - (c) The foci debate. 5
   - (ii) Nomological Studies of Organisational Commitment. 7
     - (a) Correlational Studies of Organisational Commitment. 7
     - (b) Cross-sectional Studies of Organisational Commitment. 9
3. Evidence of a Developmental Trend in Organisational Commitment. 10
4. Conclusion. 13

Chapter 2. Measuring the Development of Organisational Commitment: General Theories of Development Applied to Measuring Changes in Employee Attitudes to the Work Organisation.

1. General Theories of Development. 14
2. Defining Experience in an Organisational Context. 17
   - (i) Aspects of the Organisation. 18
   - (ii) Summary. 20

Page

Chapter 2. continued

3. Experiences and Tenure: Factors Responsible for the Development of Organisational Commitment. 21

(i) Pre-entry Experiences and the Development of Organisational Commitment. 21

(a) Pre-entry expectations. 21

(b) Personal Characteristics. 23

(ii) Socialisation Experiences and the Development of Organisational Commitment. 23

(a) Socialisation tactics. 24

(b) Met-expectations. 25

(c) Experience of supervisors and work groups. 26

(iii) Advancement / Stabilisation Experiences and the Development of Organisational Commitment. 27

(a) Transactional rewards: Pay and promotion. 28

(b) Relational rewards: Recognition and influence. 29

4. Conclusion. 30

Chapter 3. Research Methodologies for the Study of Development.

1. Methods in Developmental Research. 33

(i) Cross-sectional and Longitudinal Designs. 34

(ii) Confounding Influences in Developmental Methodologies. 35

2. The Cross-sequential Design. 37

3. Conclusion. 39

Chapter 4. A Cross-sequential Study of the Development of Organisational Commitment in Police Organisations.

1. The Study of Development in Organisations. 41

(i) Selecting an Appropriate Organisation. 41

(ii) Generalising Attitudinal Data Across Countries. 43

(iii) Defining the Limits of the Cross-Sequential Design. 43

Page

Chapter 4. continued

2. Survey 1: A Cross-sectional Study of the Organisational Commitment in Australian and New Zealand Police Officers. 45

(i) Method. 45

(a) Participants. 45

(b) Procedure. 47

(ii) Measures: Organisational Commitment. 47

(iii) Measures: Personal Characteristics. 48

(a) Demographic data. 48

(b) The Protestant Work Ethic Scale. 48

(c) Commitment Propensity. 49

(d) Cynicism. 50

(e) Self Esteem. 50

(f) Tenure-related factors: Investments and job availability. 50

(iv) Measures: Role-related Characteristics. 51

(a) Role ambiguity. 51

(b) Role conflict. 51

(v) Measures: Formal Organisational Climate. 52

(a) Communication. 52

(b) Participation in Decision Making. 52

(c) Perceived Organisational Support. 53

(d) Promotion. 53

(vi) Measures: Informal Organisational Climate. 53

(a) Peer cohesion. 53

(b) Commitment norms. 53

(c) Social involvement. 54

(vii) Measures: Met-expectations. 54

(a) Confirmed expectations. 54

(b) Met-expectations. 54

Page

Chapter 4. continued

(viii) Results and Discussion. 55

(a) Reliability and validity of the work measures. 55

(b) Reliability and validity of the Organisational Commitment Questionnaire. 57

(c) Response bias and organisational commitment. 60

(d) The developmental trend: Cross-sectional data from Australia and New Zealand. 66

(e) Factors related to individual differences in organisational commitment within the two samples. 68

(f) Factors associated with the decline in organisational commitment within police organisations. 72

(g) The development of organisational commitment with age. 75

(ix) Summary of Results and Conclusions. 76

3. Surveys 2 and 3: Cross-sequential Evidence for a Developmental Trend in the Organisational Commitment of Police Officers in Australia. 79

(i) Method. 79

(a) Participants and procedure. 79

(ii) Measures. 79

(iii) Results and Discussion. 80

(a) Reliability of Survey 2 and 3 measures. 80

(b) Cross-sequential evidence of a developmental trend in organisational commitment. 85

(c) Factors associated with the decline in organisational commitment within police organisations. 89

(d) Explanation of cohort and interaction effects. 90

(e) Promotion and the development of organisational commitment. 94

(iv) Summary of Results and Conclusion. 96

Page

Chapter 5. Improving Organisational Commitment: Qualitative Validation of the Quantitative Results.

1. Introduction. 102
   - (i) The Impact of Tenure on Factors Influencing Organisational Commitment in the Quantitative Data. 102
   - (ii) Validation of Quantitative Data. 103
2. Method. 104
   - (i) Participants and Procedure. 104
   - (ii) Measures. 104
   - (iii) Analysis. 106
     - (a) Breakdown of responses. 106
     - (b) Reliability. 106
3. Results and Discussion. 107
   - (i) Methods for Improving Organisational Commitment. 108
   - (ii) Officers' Perceptions of Organisational Support. 110
   - (iii) The Provision of Feedback in the Organisation. 114
   - (iv) Enhancing Investments in the Organisation. 119
4. Conclusion. 122

Chapter 6. The Development of Organisational Commitment Across Formal Training and Early Probationary Experience.

1. Introduction. 124
   - (i) The Influence of the Selection Process. 124
     - (a) Pre-entry commitment propensity. 124
     - (b) Work ethic. 127
     - (c) Pre-entry expectations. 128
   - (ii) The Experience of Training: Socialisation Effects. 128
   - (iii) The Experience of Training: Un-met Expectations. 132
   - (iv) Conclusion. 134

Page

Chapter 6. continued

2. Method. 135

(i) Participants and Procedure. 135

(ii) Measures: Pre-entry. 137

(iii) Measures: Early Academy Training. 137

(iv) Measures: Late Academy and Pre-field Training. 138

(v) Measures: Post-field Training. 138

(vi) Measures: End of Probation. 138

3. Results and Discussion. 139

(i) Changes in Organisational Commitment. 139

(ii) Factors Associated with Changes in Organisational Commitment. 142

(a) Met- (Unmet-) expectations. 142

(b) Expectations and experiences. 145

(c) Commitment propensity and work ethic. 147

(iii) Individual Differences in Absolute Levels of Organisational Commitment. 149

(a) Commitment propensity. 151

(b) Work ethic. 152

(c) Expectations and experiences. 152

(d) Met- (unmet-) expectations. 154

(iv) Probationary Levels of Organisational Commitment: A Comparison of South Australia and New South Wales. 155

4. Conclusion. 156

Chapter 7. Organisational Commitment Across Occupations in the Police Organisation.

1. Introduction. 160

(i) Same Occupation, Different Organisations: Comparisons of Commitment Within an Occupation but Across Organisations. 161

Page

Chapter 7. continued

(ii) Different Occupations: Comparisons of Commitment Across Occupations Within and Across Organisations. 162

(iii) Occupations Within Police Organisations. 163

(iv) Occupational Influences on Organisational Commitment. 164

(v) Conclusion. 166

2. Method. 167

(i) Participants and Procedure. 167

(ii) Measures. 167

3. Results and Discussion. 169

(i) The Influence of Status and Qualification on Organisational Commitment in the Nonsworn Police Employee Sample. 169

(ii) Comparisons of Police Officers and Nonsworn Police Employees. 170

(iii) Factors Influencing Absolute Levels of Organisational Commitment. 177

4. Conclusion. 179

Chapter 8. Exploratory Structural Equation Modelling of the Factors Influencing Individual Levels of Organisational Commitment.

1. Introduction. 183

2. Model Development. 185

3. Analysis of the Models. 192

(i) Analysis of the Measurement Models for 1994, 1995 and 1996. 193

(ii) Analysis of the Structural-Relations Models for 1994, 1995 and 1996. 195

(iii) Analysis of the Longitudinal Structural-Relations Model. 195

4. Results and Discussion. 195

(i) Measurement Models in 1994, 1995 and 1996. 195

(a) Measurement model, 1994. 197

(b) Measurement model, 1995. 199

Page

Chapter 8. continued

(c) Measurement model, 1996. 199

(d) Summary of results and discussion. 201

(ii) Structural-Relations Models in 1994, 1995 and 1996. 201

(a) Structural-relations model, 1994. 201

(b) Structural-relations model, 1995. 203

(c) Structural-relations model, 1996. 204

(d) Summary of results and discussion. 205

(iii) Longitudinal Structural-Relations Models. 206

5. Conclusion. 208

Chapter 9. Conclusion. The Development of Affective Organisational Commitment: The Nature of the Developmental Function and its Relationship to Personal and Organisational Factors.

1. Summary of Results. 210

2. The Developmental Trend in Organisational Commitment. 215

3. Experience and the Development of Organisational Commitment. 217

(i) Socialisation: The Influence of Training and Field Experience. 218

(ii) Tenure: The Influence of Continuing Experience of the Organisation. 220

(iii) Psychological Contracts and the Development of Organisational Commitment. 224

4. Occupational Grouping and the Development of Organisational Commitment. 225

5. Conclusion. 227

List of Appendices. 229

Appendices. 231

References. 262

List of Figures

		Page
4.1	Relationship between response rates in 25 studies using the OCQ and mean level of commitment.	63
4.2	Cross-sectional trend in the development of organisational commitment.	67
4.3	Organisational commitment by cohort (1994, 1995 and 1996): Cross-sectional results.	85
6.1	Times of assessment and associated critical periods.	136
6.2	Mean levels of organisational commitment across training.	141
6.3	Cross-sectional trend in organisational commitment in Australian police organisations.	156
7.1	Mean levels of organisational commitment for police employees by years of service (cohorts).	173
7.2	Mean levels of organisational commitment for police employees by grouped years of tenure.	175
8.1	Measurement and structural-relations models: 1994.	188
8.2	Measurement and structural-relations models: 1995.	189
8.3.	Measurement and structural-relations models: 1996.	190
8.4	Longitudinal structural-relations model.	191
8.5	Respecified measurement model (1994) with standardised parameter estimates.	198
8.6	Respecified measurement model (1995) with standardised parameter estimates.	200
8.7	Respecified measurement model (1996) with standardised parameter estimates.	200
8.8	Structural-relations model (1994) with standardised parameter estimates.	202
8.9	Structural-relations model (1995) with standardised parameter estimates.	203
8.10	Structural-relations model (1996) with standardised parameter estimates.	204
8.11	Structural-relations models: Cynicism - Commitment and Perceived organisational support - Commitment.	206
8.12	Cynicism and Perceived organisational support structural-relations models with standardised parameter estimates.	207

List of Tables

		Page
1.1	Antecedents of affective organisational commitment.	8
3.1	Example of Schaie's (1967) general model for the study of developmental problems.	37
3.2	Example of a cross-sequential design, showing a series of intersecting 2 x 2 designs that can be analysed to isolate developmental changes.	39
4.1	Cross-sequential study of organisational commitment in police organisations.	44
4.2	Means and intercorrelations in survey 1, Australia and New Zealand combined.	58
4.3	Factor loadings for principal components factor analyses of the OCQ.	59
4.4	Characteristics of the respondent samples and their respective organisations.	62
4.5	Summary of stepwise (exploratory) regression analyses for factors explaining organisational commitment by country.	69
4.6	Means (and standard deviations) for measures in survey 1 by country, differences between countries, and correlations between organisational commitment and other measures.	70
4.7	Summary of hierarchical regression analysis for factors explaining organisational commitment.	73
4.8	Measures included in each of the surveys.	80
4.9.a	Means and intercorrelations in survey 2.	82
4.9.b	Means and intercorrelations in survey 3.	83
4.10	Test-retest reliabilities for survey measures.	84
4.11	Developmental changes in organisational commitment: Means (and standard deviations).	86
4.12	Repeated measures analysis of variance of the development of organisational commitment.	87
4.13	Summary of hierarchical regression analyses for factors explaining organisational commitment.	89
4.14	Summary of hierarchical regression analyses for factors explaining organisational commitment in junior and senior cohorts.	92

Page

List of Tables. continued

4.15 Factors that entered the simultaneous exploratory regressions. 101

5.1 Demographics of the sample. 107

5.2 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the question: How do you think that commitment to the police organisation might be improved? 109

5.3 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the question: In what ways do you think that the police organisation demonstrates a lack of support for its officers? 111

5.4 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the question: In what ways does the organisation demonstrate support? 112

5.5 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the question: How could the organisation better demonstrate support for its members? 113

5.6 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the questions assessing the present feedback situation. 115

5.7 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the questions assessing the desired feedback situation. 117

5.8 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the question: What sources provide you with information about *organisational procedures or processes* (e.g., changes in procedures, promotional opportunities, general information)? 118

5.9 Frequencies and Chi^2 analyses of the difference between junior and senior officer comments about proposed mechanisms for enhancing morale. 119

5.10 Frequencies and Chi^2 analyses of the difference between junior and senior officer responses to the question: What problems or issues might cause you to leave the police department? 121

6.1 Summary of measures used at each sampling time. 140

6.2 First-order correlations between the change in organisational commitment (T3 to T4) and (un)met-expectations controlling for organisational commitment level at T3. 145

List of Tables. continued

Page

6.3	First-order correlations between organisational commitment and pre-entry expectations and post-field training experience controlling for organisational commitment level at T3.	146
6.4	Correlations between organisational commitment and other survey measures.	150
6.5	First-order partial correlations between difference score measures of un-met expectations and individual levels of organisational commitment controlling for pre-entry levels of expectations.	154
7.1	Demographics of the nonsworn employees.	168
7.2.a	Means and intercorrelations in the nonsworn survey for the unqualified employee group.	171
7.2.b	Means and intercorrelations in the nonsworn survey for the qualified employee group.	172
7.3	Summary of hierarchical regression analyses for factors explaining organisational commitment of the nonsworn police employees.	178
8.1.a	Goodness-of-fit tests for the 1994 measurement and structural-relations models.	196
8.1.b	Goodness-of-fit tests for the 1995 measurement and structural-relations models.	196
8.1.c	Goodness-of-fit tests for the 1996 measurement and structural-relations models.	197

Summary

The study of employee morale has had a long and varied history. Earliest studies concentrated on enhancing job satisfaction, but attention was directed toward the impact of organisational commitment on employee performance in the 1970s (Katzell & Austin, 1992). The first extensive theory of organisational commitment was provided by Mowday and his colleagues (Mowday, Porter, & Steers, 1982), and used the definition offered by Porter and Smith (1970). The literature devoted to organisational commitment presently includes over 2,000 articles. This work can be divided into two sections: the development of theory and the establishment of empirical support for the theory. In summary, the theoretical work has been devoted to determining the construct (form, dimensions or bases and foci) of organisational commitment, and generally indicates that there is an affective employee response to the organisation as outlined by Porter and Smith. The empirical work has concentrated on defining and demonstrating relationships between organisational commitment and its theoretical antecedents and outcomes, and has produced a "laundry list" of both (Reichers, 1985) that are rarely fitted into a theoretical framework. There are two major problems with this work. First, despite the fact that much of both the theoretical and empirical work has been based on the assumption that affective organisational commitment follows a developmental (i.e., maturation with time) function, there is yet to be a study demonstrating the existence of this function. Second, the theoretical framework linking antecedents to affective organisational commitment is not well defined.

The purpose of this thesis was to address these issues, using lifespan developmental theory as the basis for both theoretical and methodological design. The underlying concept of lifespan theory is that individual characteristics and attitudes develop as a result of experiences that occur with ageing. The present thesis was based on an extension of this theory and argues that employee attitudes to the organisation develop as a result of experience with formal (leader) and informal (work group) climate of the organisation, as well as because of individual personal

characteristics. The primary aim was to determine if commitment can be mapped as a developmental function. The secondary aim of the thesis was to test the relationships between commitment and potential antecedents within the framework of the experience of the organisation.

The major study collected cross-sequential data from a sample of 479 police officers in the New South Wales (Australia) Police Service. Questionnaire measures were administered to 10 cohorts (officers recruited from 1977 - 1979 and 1987 - 1993 inclusive) across 3 years (1994, 1995 and 1996). In addition, comparable data were collected from 328 officers from the New Zealand police department (1994) and from 855 nonsworn (public servant) employees of the New South Wales Police Service (1996). Finally, a longitudinal study of 20 recruits to the South Australian (Australia) police department was conducted, with 7 data collections over a 2 year period (1994-1996).

The results of a cross-sequential data analysis indicate that there is a developmental trend, free from cohort and time of measurement effects, in affective organisational commitment in police organisations. Furthermore, the importance of using tenure (years of experience) rather than biological age when examining the development of employee attitudes toward the organisation was demonstrated. The commitment levels of recruits began very high (about 6.0 on a 7-point scale) but decreased significantly as a result of field training. This decrease occurred rapidly, with significant decreases being observed over a three month period of field experience. Commitment then follows an asymptotic-type trend, with rapid decreases over the 12 month probationary and into the first 3-5 years of experience in the organisation followed by a continuing, albeit less steep, decrease out to 19 years of police experience.

This trend appears to be somewhat unique to the police occupation, since the trend is displayed in the New Zealand police sample. However, within the police organisation, the development of commitment in at least one other occupational group (unqualified nonsworn employees) seems to be similar to the police officers. This would argue that experiences of characteristics linked to the police organisation are

responsible for the trend. In contrast, the trend in commitment reported by another occupational group within the police organisation (i.e., qualified nonsworn employees) is different; increasing with tenure. This result suggests that it is important to consider the occupational group of employees when examining the development of organisational commitment.

The results of exploratory regression analyses and structural equation modelling indicate that, for all samples, experiences that influence perceptions of organisational support; that impact on role clarity; that confirm expectations held by the employee (particularly in relation to career development); and that enhance employee investments into the organisation, were found to be related to levels of commitment at all stages of an employee's career. These results were validated through content analysis of responses to a series of open-ended questions designed to assess employees' opinions regarding the improvement of organisational commitment. Consistent with Hofstede's cultural analysis (refer to Randall, 1993), higher levels of these factors were reported by the New Zealand sample, explaining in part their higher levels of commitment. Finally, the pivotal role of informal socialisation in reducing newcomer commitment, despite the best efforts of the formal socialisation agents (i.e., training officers at the police academy), was demonstrated in the recruit sample. Specifically, the only significant decrease in commitment for these newcomers, across 9 months of academy training and 3 months of field experience, occurred as a result of the field experience. Recruits who spent a greater proportion of their field experience in metropolitan, rather than rural, locations reported larger drops in commitment over the period.

To conclude, the results of this thesis provide evidence of a developmental function for affective organisational commitment. Furthermore, the results support a social exchange view of the formation of employee commitment, strengthening the argument that organisations must provide positive experiences relating to formal aspects of the organisation, as well as controlling the influence of informal aspects of the organisation, if employee commitment is an important outcome.

Statement

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University and, to the best of my knowledge and belief, the thesis contains no material published or written by another person, except where due reference is made in the text of the thesis.

I consent to the thesis being made available for photocopying and loan if accepted for the award of the degree.

Karen Beck

August 1997

Acknowledgements

The preparation of this thesis has taken four years and a great deal of assistance. I would like to take this opportunity to thank some of the people who provided that assistance and, in addition, general support. First, there is absolutely no doubt of the debt I owe Dr Carlene Wilson for her wise counsel, unfailing reinforcement and gentle prodding over the duration of this research.

In addition, I would like to thank the police officers and nonsworn employees of the New South Wales Police Service, the police officers of the New Zealand Police Department and the members of Course 64 (1994) at the South Australian Police Academy who completed the surveys necessary for this thesis. Thanks are also due to Mr N Bridge (NSW Police Service), Assistant (now Deputy) Commissioner B Matthews (NZ Police) and Chief Inspector T Oldman (SA Police Academy), and the members of their staff, who facilitated access to the respondents. Recognition of the support provided to me by the National Police Research Unit is necessary. Without the resource support and latitude allowed by the Director, Chief Superintendent R Hamdorf, and Senior Research Fellow, Dr J Packer, the longitudinal nature of this study would not have been possible.

I am grateful to Ms Wendy Bowes for her expert figure preparation, for finishing touches during the preparation of this thesis for publication and for her constant encouragement. Thanks are also due to Dr Ted Nettelbeck for his assistance with the qualitative data analysis and comments on a final draft, and to Mr Ian McKee for his assistance with the structural equation modelling and LISREL analysis, and for his comments on Chapter 8. In addition, I am grateful to the faculty of the Psychology Department of the University of Adelaide, who had enough faith in the ability of a Botany graduate to allow her to undertake Doctoral studies.

Finally, I would like to thank my family and friends for their understanding and support. Most particularly, my eternal gratitude goes to my husband, Michael, who often had a greater belief in me than I had myself.

SITY OF ADELAIDE LIBRARY

Chapter 1

Introduction: Themes in the Organisational Commitment Literature

1. The History of Organisational Commitment

The link between work motivation and employee morale was one of the first themes to emerge in the earliest studies in organisational and industrial psychology, gaining importance during the 1930s (Katzell & Austin, 1992). In his book *Motivation and Morale in Industry*, Viteles (1953) used Smith and Westen's (1951) definition of employee morale -- "an attitude of satisfaction, with desire to continue in, and willingness to strive for the goals of a particular group or organization" (p. 1) -- to describe a work attitude hypothesised to have a major influence on work performance. During the following decades, research was undertaken to identify organisational factors that might have an adverse effect on employee well-being. This research was based on the premise that poor job satisfaction would impact negatively on productivity.[1] It was not until the 1970s that the focus shifted from satisfaction with the job solely, to include commitment to the organisation.

In 1970, Porter and Smith defined the concept of organisational commitment as:

> the relative strength of an individual's identification with and involvement in a particular organization [which is] characterized by at least three factors: (a) a strong belief in and acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; and (c) a strong desire to maintain membership in the organization. (Mowday, Porter, & Steers, 1982, p. 27)

The concept of organisational commitment attracted a lot of interest from researchers and managers of organisations for two reasons. First, the above definition of organisational commitment implies that employees with high levels of commitment

---

[1] Despite many attempts, the link between job satisfaction and productivity has not been well validated. Although some studies report a relationship between the two (Tett & Meyer, 1993), others have concluded that the relationship is negligible (Iaffaldano & Muchinsky, 1985; Locke, 1976).

would behave in ways that would be of benefit to the organisation (Franken, 1988; Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989), because they would be working for goals that they feel are their own as much as the organisation's (Katz & Kahn, 1978). Consistent with this interpretation, correlational studies have demonstrated that high levels of organisational commitment are related to high levels of performance at both the individual and organisational level (Johnston & Snizek, 1991; Marcoulides & Heck, 1993; McFarlane Shore & Wayne, 1993; McNeilly & Russ, 1992; Meyer et al., 1989; Mowday, Porter, & Dubin, 1974; Mowday et al., 1982; Ostroff, 1992; Steers, 1977), to low levels of turnover and absenteeism (Abelson, 1987; Gellatly, 1995; Hackett, Bycio, & Hausdorf, 1994; Hom, Katerberg, & Hulin, 1979; James & Hendry, 1991; Lee, 1988; McFarlane Shore & Martin, 1989; McNeilly & Russ, 1992; Ostroff, 1992; Porter, Steers, Mowday, & Boulian, 1974; Rusbult & Farrell, 1983; Steers, 1977; Tett & Meyer, 1993), and to performance of extra-role behaviours (in excess of the duty statement or job description; Gregersen, 1993; Meyer, Allen, & Smith, 1993; O'Reilly & Chatman, 1986; Randall, Fedor, & Longenecker, 1990; Vandewalle, Van Dyne, & Kostova, 1995). Recently, relationships have also been reported between organisational commitment and ethical decision-making (i.e., solving ethical dilemas; McConkey, Huon, & Frank, 1995; Sims & Kroeck, 1994) and intent to report illegal, immoral or illegitimate practices (i.e., whistle-blowing, Somers & Casal, 1994). Each of these employee behaviours has the potential to influence the overall effectiveness of the organisation, and the relationships suggest that managers should attempt to optimise the commitment of their employees.

The second reason for studying organisational commitment relates to its reportedly higher stability (less influenced by daily, fluctuating factors) than is found for job satisfaction (Porter et al., 1974). As a result of this stability, it is deemed to be a more appropriate target than job satisfaction for interventions designed to maximise employee performance (Angle & Perry, 1981). For these reasons, together with the mixed results arising from studies of job satisfaction, organisational commitment has been the focus of a great deal of study recently. This chapter will outline briefly the important themes in

this research, and will highlight an area in which the research is lacking.

2. The Study of Organisational Commitment

The study of organisational commitment can be divided into two subject areas: conceptual and nomological. Within the conceptual work, there are on-going debates about the construct (form, dimensions or bases, and foci) of organisational commitment. The nomological work has concentrated on defining and demonstrating relationships between organisational commitment and its theoretical antecedents and outcomes.

(i) Conceptual Issues in the Study of Organisational Commitment

The diversity in conceptual issues was highlighted by Angle and Perry (1981) who commented that "[C]ommitment has been studied from so many different theoretical perspectives ... that we might better abandon the term altogether and deal instead with a set of concepts, each focussed on one or another aspect of commitment" (p. 1). A large proportion of the commitment literature is still devoted to theoretical and empirical work designed to better define, and measure, organisational commitment. The work encompasses several different debates.

(a) The attitude - behaviour debate. Part of the debate surrounding commitment is concerned with what it actually is -- an attitude or behaviour (e.g., Porter & Smith, 1970, cf. Salancik, 1977). Mowday et al. (1982) proposed a reciprocal relationship (i.e., attitudinal commitment leads to commitment behaviours which, in turn, strengthen attitudinal commitment). Although this relationship could confound the study of causal paths, the authors argue that commitment as an attitude warranted research attention because of the links that had been reported between attitudinal commitment and employee behaviours that impact on organisational effectiveness. To date, the majority of studies has approached the study of organisational commitment as the study of an employee attitude (Mathieu & Zajac, 1990), and there appears to be little reason to abandon this approach.

(b) The dimension debate. A second area of debate within the conceptual literature is about the dimensional structure of organisational commitment. Specifically,

some argue that commitment is not unidimensional as proposed by Mowday et al. (1982), but that it has a number of different dimensions or bases (e.g., Becker, 1992; Dunham, Grube, & Castaneda, 1994; Wiener, 1982). Allen and Meyer (1990b; Meyer & Allen, 1991; Popper & Lipshitz, 1992) theorised that commitment develops along three dimensions: affective (emotional attachment to, identification with, and involvement in the organisation), normative (feelings of obligation to the organisation) and continuance (based on the costs associated with leaving the organisation[2]). Each of the three dimensions of commitment is related in different ways to the theoretical antecedents and outcomes of organisational commitment (Randall et al., 1990). Despite the call for distinction, Meyer and Allen (1984), the main proponents of the three dimensional model, report a strong correlation between their measure of affective commitment and the "standard" measure of commitment (the OCQ [Organisational Commitment Questionnaire], Porter & Smith, 1970), a result that was replicated independently by both Randall et al. (1990) and Cohen (1996). In regard to the affective - continuance distinction, Mathieu and Zajac (1990) suggested that affective and continuance commitment should, themselves, be correlated, with the strength of this correlation increasing with tenure. On the other hand, Cohen found relationships between affective commitment (especially as measured by the OCQ) and important organisational outcomes (e.g., intention to leave the organisation), but not continuance commitment. Thus the relationship between the two constructs, and their implications for behaviour, remain unclear. Nevertheless, affective commitment appears to be a construct which validly predicts organisational performance, with further research required in order to fully document and understand the relationship.

An alternative to Meyer and Allen's (1990b) approach is the three-component

---

[2] Becker (1960) first described this form of commitment, arguing that an individual stays in an organisation because of the "side-bets" or investments that he or she has made. Hrebiniak and Alutto (1972) extended the theory to suggest that the development of organisational commitment is a combined exchange and accrual process, whereby the employee's perception of the ratio of inducements to contributions and the accumulation of investments influence the individual's level of commitment.

theory of Psychological Attachment (based on O'Reilly & Chatman; 1986, see for details, Harris, Hirschfield, Feild, & Mossholder, 1993). According to this theory, the three dimensions along which attachment (commitment) develops are compliance (based on the expectation of receiving reward for work), identification (based on valued membership in, and affiliation with, the organisation) and internalisation (based on congruence between personal and organisational goals). As with the Meyer and Allen theory, there seems to be little evidence that internalisation and identification differ from each other or from the Mowday et al. (1982) concept of attitudinal (affective) commitment. Furthermore, compliance has been found to be related strongly to continuance (behavioural) commitment (Harris et al., 1993). This suggests that O'Reilly and Chatman (1986) tapped into a single measure of affective commitment (i.e., identification and internalisation combined) and a measure of behavioural commitment (i.e., compliance). There is inadequate evidence on which to argue that this model is better than the Mowday et al. construction of commitment.

In summary, the research reviewed here suggests that there are two aspects of organisational commitment: affective commitment (i.e., the attitudinal aspect) and continuance commitment (i.e., the behavioural aspect). Furthermore, these two aspects may (e.g., Mathieu & Zajac, 1990) or may not (e.g., Cohen, 1996; O'Reilly & Chatman, 1986) be related[3], with the relationship requiring further research. Nonetheless, the affective component of organisational commitment has been identified as a distinct aspect of commitment and as one which, furthermore, is linked to important organisational outcomes.

(c) <u>The foci debate.</u> The final area of debate within the conceptual studies of organisational commitment lies in the definition of the foci of commitment. Some authors argue that because an organisation is constructed of many different parts (e.g., senior

---

[3] Some authors argue that behavioural commitment is actually an outcome of affective organisational commitment (Mowday, Porter & Steers, 1982). In other words, an understanding of the development of behavioural commitment is dependent on first understanding the development of affective organisational commitment.

management, supervisors, peers, clients), it follows that organisational commitment is not global but can be divided into components that are focussed on each of these parts (e.g., Barling, Wade, & Fullagar, 1990; Becker, 1992; Becker & Billings, 1993; Becker, Randall, & Riegel, 1995; Gregersen, 1993; Reichers, 1985, 1986). In theory, commitment to the global organisation may be the sum of the commitment to each of the components, the aggregate of which influences employee behaviours. There is, however, more support for the alternative view that commitment to the global organisation is an independent commitment, although it may be influenced by commitments to the individual components (e.g., if commitment to peers is strong, commitment to the global organisation may be compromised, Gregersen, 1993; Reichers, 1986). In either case, the study of commitment to the global organisation is important since this attitude has been shown to be related to employees' organisational behaviours.[4]

In summary, despite the debates that are presently found within the conceptual work on organisational commitment, there is strong support for continuing to study organisational commitment as a unidimensional, global and attitudinal construct (Brooke, Russell, & Price, 1988; Mathieu & Farr, 1991; Morrow & McElroy, 1993). In view of this, the present thesis adopts the view of Angle and Perry (1981) and Vandenberg and Self (1993), and concentrates on the affective commitment framework based in the work of Porter and his colleagues -- noting that it "is possible to maintain a preference for one [theory] without rejecting any of the others out of hand" (Peterson, 1989, p. 55). With this in mind, it is possible to examine the nomological studies within the affective organisational commitment literature, with a view to identifying potential omissions in the research.

---

[4] Attitude-behaviour research suggests that the specificity of an attitude-behaviour relationship is critical. Specifically, only attitudes directed toward a certain issue will influence behaviour that is related to that issue (e.g., dissatisfaction with peers may influence behaviour toward peers such as whistle-blowing, but should not generalise to effect behaviours related to actual work performance). Field theory (Lewin, 1951) further suggests that proximity is important when relating attitudes to external factors. For example, experiences with or attitudes toward family issues should be less influential on attitudes toward work than experiences with or attitudes toward work-related variables such as supervisors or coworkers and their behaviours.

(ii) Nomological Studies of Organisational Commitment

The main aim of the studies in the nomological work on organisational commitment has been to identify the factors that cause organisational commitment to develop and change. The importance of identifying these factors lies in their potential use as targets in interventions designed to improve levels of organisational commitment within an organisation. The studies in this area can be divided into two sections based on the research designs used: correlational and cross-sectional.

(a) Correlational studies of organisational commitment. The majority of studies in the vast body of the empirical commitment literature have reported correlational data (see Mathieu & Zajac, 1990, for a comprehensive meta-analysis). Overall, the results lend tentative support to some aspects of Mowday et al.'s (1982) model of the antecedents of commitment (see Table 1.1). This model includes four categories of antecedents: personal characteristics (age, tenure, education, gender, achievement motivation and work ethic), role-related characteristics (job scope or challenge, role conflict and role ambiguity), structural characteristics (formalisation, functional dependence, decentralisation, and worker ownership) and work experiences (organisational dependability, personal importance to the organisation, met-expectations, co-worker attitudes to the organisation, perceived pay equity, leadership style and social involvement). Mathieu and Zajac (1990) conducted a meta-analysis of studies that had reported correlations between some of these hypothetical antecedents and organisational commitment. Unfortunately, not all of the factors included in the Mowday et al. model (e.g., achievement motivation) had been studied sufficiently to be meta-analysed. Furthermore, a number of factors not included in the Mowday et al. model had been studied (e.g.,group cohesiveness). In view of this, Mathieu and Zajac were forced to modify the categories used by Mowday et al.

Table 1.1
Antecedents of Affective Organisational Commitment[a]

Mowday et al. (1982)	Mathieu & Zajac (1990)	r[b]
Personal Characteristics	*Personal Characteristics*	
Age	Age	
Tenure	Tenure	
Education	Education	
Gender	Gender	
Achievement Motivation		
Protestant Work ethic	Protestant Work ethic	.29
	Perceived personal competence	.63
	Ability	
	Salary	
	Job level	
Role-related Characteristics	*Role states*	
Role ambiguity	Role ambiguity	-.22
Role conflict	Role conflict	-.27
Job scope		
	Role overload	-.21
	Job characteristics	
	Skill variety	.21
	Task autonomy	
	Job challenge	.35
	Job scope	.50
Work experiences	*Group-leader relations*	
Organisational dependability		
Personal importance to the organisation		
Met-expectations		
Positive coworker attitudes toward the organisation		
Perceived pay equity		
Leadership style	Leader initiating structure	.29
	Leader consideration	.34
	Leader communication	.45
	Participative leadership	.39
Social involvement		
	Group cohesiveness	
	Task interdependence	.22
Structural characteristics	*Organisational characteristics*	
Formalisation		
Functional dependence		
Decentralisation		
Worker ownership		
	Organisational size	
	Organisational centralisation	

[a] Antecedents listed are those included by Mowday et al. (1982) and Mathieu & Zajac (1990).
[b] Mean weighted correlation corrected for attenuation reported by Mathieu & Zajac (1990). Only those correlations that are greater than .21 are included.

Overall, the results of the meta-analysis found medium (r = .21 to .40) to large (r > .40) mean correlations between some of the antecedents and organisational commitment (see Table 1.1).[5] Specifically, medium mean correlations were found for work ethic (personal characteristics), skill variety and job challenge (job characteristics), task interdependence, leader initiating structure, leader consideration, and participative leadership (group-leader relations), and role ambiguity and role conflict (role states). Large mean correlations were found for perceived personal competence (personal characteristics), job scope (job characteristics), and leader communication (group-leader relations). These results provided evidence that relationships do exist between organisational commitment and many of the factors that have been hypothesised to be responsible for the development and modification of commitment.

(b) <u>Cross-sectional studies of organisational commitment.</u> As an extension of the correlational studies, some researchers have used cross-sectional research designs. Essentially, these studies have assumed that there is a developmental trend in organisational commitment, although few have reported statistical differences between groups of employees with different lengths of tenure. Based on this assumption, the researchers have explored the relationships between commitment and the antecedents for individual groups of individuals at different stages of a career. Differences in the relationships at different stages are assumed to reflect changes in the factors that are causally-related to commitment.

In one of the first studies of this type, Buchanan (1974) found that group experiences (peer group cohesion and group attitudes to the organisation) and experience of personal importance (job achievement and hierarchical advancement) were related to individual differences in organisational commitment. In addition, he reported that the relationships between commitment and these antecedents differed according to length of tenure. Specifically, his results indicated that for a group of employees with less than one

---

[5] Correlations of less than .20, of between .21 and .40, and of greater that .41 were described as small, medium and large respectively by Cohen (1969).

year of tenure, co-worker attitudes and job challenge correlated with organisational commitment. In contrast, for a group of employees with between two and four years of tenure, self-image reinforcement and personal importance became more salient. Finally, for a group with greater than five years of tenure, co-worker attitudes, expectation realisation, and work commitment norms were related to commitment levels. In a subsequent study, Allen and Meyer (1993) reported a similar result. Specifically, they found that increases in tenure resulted in a decrease in the strength of the relationships between organisational commitment and three work-related experiences (role clarity, job challenge and personal importance). These studies provide further evidence that personal, role-related, organisational, group relations and work experience characteristics are in some way responsible for the development of organisational commitment.

Unfortunately, correlational data do not allow an examination of the cause and effect relationships (i.e., whether changes in commitment are caused by changes in these variables or vice versa). Ideally, cause and effect relationships are determined through experimental manipulation and random group design (Cook & Campbell, 1979), research that is difficult to conduct in organisational settings. The other major difficulty of the correlational studies comparing groups of increasing length of tenure is their failure to validate the developmental assumptions on which these studies are premised. There is, in fact, only limited empirical evidence for the assumption that there is a developmental component to organisational commitment, and this evidence will be reviewed in the next section.

3. Evidence of a Developmental Trend in Organisational Commitment

Correlational studies have, in some cases, reported a matrix that included the relationship between organisational commitment and either age or years of service (tenure) (e.g., Bateman & Strasser, 1984; Curry, Wakefield, Price, & Mueller, 1986; Shore, Thornton, & McFarlane Shore, 1990). In general, these relationships have been small and positive, indicating a tendency for organisational commitment to increase with

increasing age and tenure (Mathieu & Zajac, 1990).

Several cross-sectional studies have examined the developmental trend by comparing the mean commitment levels of groups of employees that represented different career stages. For example, Morrow and McElroy (1987) examined the change in organisational commitment across career stages (based on divisions of both age and organisational tenure) of a group of over 2,000 salespeople. They reported a positive correlation between organisational commitment and age, with significant increases in commitment across the three career stages (i.e., <31, 31-45, and >45 years old). The relationship between organisational commitment and tenure was U-shaped, with higher levels of commitment reported by employees with less than 5 years or greater than 10 years of experience. In comparison, Gregersen (1993) reported no difference in the commitment levels of employees with less than 2 years of experience and those with between 2 and 8 years of experience, but found that there was a significant increase in the commitment levels of employees with more than 8 years of experience. In another study, Allen and Meyer (1993) reported that affective commitment (measured using their own scale) increased significantly across tenure (<2, 2-10, >10 years of service) and age (<31, 31-44, >44 years old) for a sample of university library workers and tended (not significantly) to increase in a second sample of hospital employees. Overall, the results of these studies suggest that there is a developmental component of organisational commitment, predominantly, although not uniformly, reporting increases in organisational commitment with age and tenure. However, the cross-sectional design used in these studies does not allow isolation of any cohort effects (i.e., differences in the group's attitudes that result from something peculiar to one group rather than from developmental changes) and, hence, does not prove the existence of a developmental trend for commitment.

The final evidence for the existence of a developmental factor is available from more recent studies that have collected longitudinal data (i.e., repeated measures within groups). As previously discussed, the focus of the majority of these studies has been

changes in the relationships between commitment and its antecedents with time rather than the developmental trend in commitment (e.g., Allen & Meyer, 1990a; Bateman & Strasser, 1984; Kirchmeyer, 1995; Meyer & Allen, 1988; Mueller, Wallace, & Price, 1992; Porter et al., 1974). Nonetheless, an examination of mean commitment levels reported across time highlights two points. First, commitment seems to decrease rapidly across early tenure (e.g., 1 to 6 to 11 months, Meyer & Allen, 1988; Meyer, Bobocel, & Allen, 1991; 1 to 5 months, Ostroff & Kozlowski, 1992). Second, commitment levels seem to increase with tenure after the initial decrease (e.g., up to 12 months after entry, Lee, Ashford, Walsh, & Mowday, 1992; up to 30 months after entry, Van Maanen, 1975).

The trend for an initial decrease in commitment has found some additional support from two studies that were designed specifically to examine changes in commitment during initiation into an organisation. First, Farkas and Tetrick (1989) collected repeated measures of organisational commitment from navy recruits (n = 440) at the beginning of their training, then at further 6 to 8 and 10 to 12 month intervals (up to 20 months after entry into the organisation). They reported that there was a significant decrease in organisational commitment with tenure across training and initial employment. In the second study, Vandenberg and Self (1993) reported a significant decrease in commitment across the first 3 and 6 months of employment in a sample of bank employees.

In combination, the results of the correlational, cross-sectional and longitudinal studies suggest that organisational commitment does have a developmental trend. These studies have concentrated on tenure (rather than age) and have reported that organisational commitment decreases early in the experience of new recruits and then increases with increasing tenure. Furthermore, many researchers have concentrated on identifying the factors that influence the development of organisational commitment. This is despite the fact that the evidence for a developmental trend is not strong. Both Johns (1991) and Vandenberg and Self (1993) have stated that it is inappropriate to try to explain development without first demonstrating that development actually occurs.

4. Conclusion

In conclusion, this brief review of the history of research in organisational commitment highlights the need for a more thorough investigation of any developmental component in this work attitude. Such an investigation should have two distinct aims. First it should provide empirical evidence of a true developmental trend in affective organisational commitment, free of cohort and time of measurement effects. Second, and assuming that a trend is found, this study should attempt to provide some explanation of this trend. As previously mentioned, there is a long list of hypothetical antecedents from which to choose, yet limited theoretical development of the nomological frameworks for these antecedents. Therefore, before commencing to examine the developmental trend, the following chapter outlines a theoretical basis upon which factors may be selected to examine the antecedents of commitment in individual employees.

Chapter 2

Measuring the Development of Organisational Commitment: General Theories of Development Applied to Measuring Changes in Employee Attitudes to the Work Organisation

General theories of development help to provide a framework for the present study. There are two aspects of the contribution of these theories that are critical to the study of the development of organisational commitment. First, they enable the generation of hypotheses about the development of organisational commitment and, second, they provide the most appropriate methodology for developmental research. In this chapter, the manner in which general theories of development, and particularly the "lifespan" theory of development, contribute to the generation of hypotheses about the development of commitment will be discussed. On the basis of these theories, in combination with the body of theoretical and empirical work surrounding organisational commitment, it is possible to describe hypothetical relationships between organisational commitment and the factors that are believed to cause and modify individual levels of commitment with time. A discussion of developmental methodologies, including the design of the current investigation into the development of organisational commitment in police employees will be provided in the next chapter.

1. General Theories of Development

General theories of development provide a framework for the study of changes in individual physiology, behaviour and personality as that person ages from conception to death. For the purposes of the present study of organisational attitudes, we are interested only in the section of an individual's life that involves their career, that is during adult development between late adolescence and late middle age to early old age.

Super (1957), Levinson (1978, 1986) and Havighurst (1964) each proposed a theory to describe the development of attitudes and behaviours across an individual's life that included explication of changes at different career stages. Each of these theorists divided an individual's career into three stages based on the individual's age, although

the divisions are different within each theory and seem to be arbitrarily selected (Peterson, 1989). Despite the differences in divisions, the theories are similar in a number of ways. First, each theory includes a "pre-employment" stage, during which an individual seeks out an occupation or organisation that will cater to needs, values and aspirations. There is then an entry or "socialisation" stage during which individuals experience all aspects of the organisation and adapts to the new role. Finally, individuals experience the "advancement / stabilisation" stage, during which they act to enhance then maintain their position or status. During this stage they may also reevaluate their desire to remain with the organisation, deciding either to remain or to begin the process anew with another organisation. There is a second point of similarity between the theories. Although not specified by any of the three theorists, the underlying theme of their theories is that the changes in behaviour and attitudes that seem to result from "ageing" are actually caused by the sum of the experiences that the individual encounters as they age.

This idea that experiences are responsible for changes in attitudes and behaviours is better explained by another general theory of development: lifespan theory, which is "the scientific study of the growth, development, and behavioral changes of humans, from conception through old age" (Turner & Helms, 1987, p. 6). Life span theory has two aims: to describe developmental trends in growth, behaviour and attitudes (i.e., to identify intraindividual changes) and to explain these developmental trends (i.e., to establish what causes interindividual differences in intraindividual changes). In the epilogue to their book devoted to lifespan theory, Baltes and Schaie (1979) indicate that:

> A life-span perspective, with an emphasis on developmental theory construction, suggests formulation of theories and models that are dynamic and nonpersonological. The explicit focus is on models of man-environment relationships that extend far beyond S-R [stimulus-response] positions which are static rather than dynamic, to models which incorporate notions about individual-society interactions and cultural-biological change parameters, and permit for

descriptive and explanatory discontinuities. (p. 394)

Simply, this statement suggests that studies of developmental change should look toward the influence of external factors associated with an individual's experiences of the world and all its various aspects. In essence, the focus of life-span theories of development is that changes in the behaviours (and attitudes) of individuals are influenced by their experiences of their environment and how these experiences change as the individual grows older. Extending this, "age" itself is not a causal factor but, rather, it is an index of everything that an individual experiences, and "ageing" is a multifaceted experience of biological, social and psychological changes accumulated as a result of living (Rhodes, 1983; Turner & Helms, 1987). Other researchers have taken up this point, with Flavell (1970) suggesting that "experience is a far more promising source of interesting adult cognitive changes than are biological changes [associated with ageing]" (cited in Peterson, 1989, p. 31). The present thesis addresses the possibility of extending this concept of "experience" to the organisational setting and, specifically, to the explanation of the development of organisational commitment.

If "age" is an index of experiences associated with living in general, then this thesis contends that "tenure" (i.e., the length of time an individual has lived in an organisation, or "organisational age") can be viewed as an index of experiences with the organisation. Given that lifespan theory suggests that the factors associated with age cause changes in behaviour and attitudes, this thesis extends this idea to suggest that the factors associated with tenure cause changes in behaviours and attitudes directed at the employing organisation.

The distinction between age and tenure is important in organisational research. Cohen (1991) argued that "people can recycle through stages when major changes occur in their careers. ... A person who changed careers at the age of 40 is once again in the beginning cycle - similar to others who are only in their early twenties. ... This suggests that developmental age effects may not be equal across workers, but rather depend upon individual's tenure in the organisation" (p. 259). On this basis, it is important to examine

the development of employee attitudes as they develop with tenure rather than age, notwithstanding the fact that age may play a role; namely that older newcomers may be more restricted by time in terms of alternative employment, and therefore have a more positive view of the employing organisation than younger newcomers who have more time in which to take up alternatives.

In summary, despite their differences, the general developmental theories each point to the importance of experiences (of life, ageing, organisations, peer groups, supervisors, or work) in the development of attitudes and behaviours. They all suggest that developmental changes in attitudes will occur with increasing tenure in an organisation. Although there is no strict guideline for the construction of "career stages", it seems logical that individuals have changing experiences of an organisation at different times across their organisational membership and that these experiences will impact on the development of their attitudes. To begin with, therefore, it is important to identify the specific factors that comprise these experiences.

2. Defining Experience in an Organisational Context

The factors associated with "experience" of an organisation have not yet been developed into a framework or theory. The general developmental theories discussed previously provide some direction for this attempt. First, the theories indicate that even prior to entering an organisation, an individual has a form of experience with the organisation. Specifically, that individual will obtain information about various aspects of the organisation and, on the basis of this information, they will decide whether to apply for a position. Second, the individual will experience a period of socialisation during which they learn the skills necessary for them to fulfil their new roles, while learning about the formal and informal culture of the organisation. Finally, the individual will undergo a period of advancement and stabilisation, during which they feel comfortable in their roles and begin to work toward a career goal (i.e., promotion, transfer to a certain role or position, or maintenance of their present conditions). Within each of these periods, individuals will experience different aspects of the organisation.

(i) Aspects of the Organisation

The next step in determining a framework of experience is to outline the aspects of an organisation that individuals experience at each of these periods. Reading the organisational and industrial literature fails to highlight a consensus on precisely what constitutes an "organisation". Various definitions have been given, ranging from a form of social system that has evolved to produce something (Open System Theory, Katz & Kahn, 1978) to the arrangement of elements or parts in an integrative or cooperative way (Wolman, 1973). Cook, Hepworth, Wall, and Warr (1981) found it most heuristically useful to arrange the measures used in research of organisations into three subgroups, reflecting three levels of an organisation: job characteristics (i.e., the actual content of the job performed), work role (i.e., the context in which the job is performed), and organisational climate (i.e., characteristics of the organisation as a whole), and this approach certainly assists in the operationalisation of experience.

Job characteristics include aspects of the task (e.g., skill variety, task autonomy), the degree to which the job is interesting to the incumbent (e.g., job challenge and scope) and the degree to which the job is defined and is under the control of the incumbent (e.g., role conflict and role ambiguity). The context in which the job is performed, or work role, encompasses both work and employment conditions. For example, work conditions may include physical environments such as office space or design, or provision of uniforms and equipment. Employment conditions include such aspects of employment as contracts, pay rates and provision of superannuation.

Unlike job characteristics and work role, the final aspect of the organisation, organisational climate, is considerably more difficult to operationalise.[6] An examination

---

[6] In addition, the use of organisational climate measures has been the subject of some debate. Cook et al. (1981) suggested that measures of organisational climate (e.g., how many levels of authority the respondent believed existed, or the degree of perceived inclusion in decision-making) should be used only in efforts to determine the degree of congruency within employee responses. These analyses could then be used to compare different organisations. However, Mowday et al. (1982) provided strong theoretical reasons for including perceptions of different organisational factors as antecedents of organisational commitment. Moreover, James and McIntyre (1996) have argued that organisational climate is an important individual variable, because perception of the organisation influences affective responses to the organisation.

of the measures included in the "organisational climate" section of Cook et al.'s (1981) compendium gives an indication of both the absence of a coherent theory of organisational structure and of the breadth of influences purported to constitute organisational climate. However, there are three areas that appear consistently in the majority of the measures. These are communication, participation in decision-making and organisational support (i.e., warmth, dependability, and equity). Often these aspects fall into a "leadership" category, suggesting that there are aspects of the organisation that are equated with the leader(s), and that reflect an official or formal part of the organisational climate. These experiences will be labelled "formal organisational climate ~~characteristics~~".

On the other hand, organisational climate may be influenced by non-leader members of the organisation. These experiences will be labelled "informal organisational climate ~~characteristics~~". Katz and Kahn (1978) commented that, within an organisation, it is often the people with whom the individual works who ensure that the individual acts in a manner that enables the organisation to function. Specifically, coworkers generate the environmental pressures that demonstrate the requirements of given situations; they hone and communicate the norms, values and expectations; and they ensure compliance with the norms through various forms of rule enforcement. Work groups are particularly salient in the employment situation as they not only set and enforce the boundaries of work-related behaviour, but they also provide a social network which can support or ostracise individuals. Work group factors can be operationalised in a number of different ways, including, for example, work group co-operation, friendliness and warmth (James & McIntyre, 1996).

The work group can incorporate both co-workers and supervisors (Cross, 1973). Essentially, the work group may act to influence work-related attitudes in a number of ways. The first is directly, where an individual's attitude toward the work group influences their attitude toward the organisation as a whole. Alternatively, work groups can modify the relationship between individuals' experiences and attitudes through, for

example, communicating to the individual the norm that is held within the group and expecting them to conform to that norm. As Treadwell and Harrison (1994) note: "participation in an organization restructures cognitions so that the subjective meanings of an individual come to resemble those of other individuals in the environment" (p. 63). The final possibility is that the process of attitude formation is a combination of the two. In other words, individuals will experience the organisation for themselves, and will make determinations about the organisation based on a combination of their own observations and what they think other people in the organisation (especially peers or supervisors) would think (Harris, 1994). Whichever is the correct process, the influence of work groups on the development of peer attitudes is well established in the literature.

Specifically, supervisors / co-workers are able to reduce role stress and uncertainty, which in turn influences satisfaction (O'Driscoll & Beehr, 1994); provide information, which in turn increases commitment (Ostroff & Kozlowski, 1992); model constructive behaviours for coping with dissatisfaction (Robinson, 1994); reduce role ambiguity through provision of performance feedback (Sims & Szilagyi, 1975); and enhance opportunities for promotion (Whitely & Coetsier, 1993). Of additional interest is the fact that this form of organisational climate may be considered unofficial (informal), and the attitudes generated are often quite distinct from the official (formal) organisational climate originating from senior management.

(ii) Summary

To recapitulate, individuals are likely to experience a range of different facets of their employing organisations. It has been argued that an organisation consists of four aspects: job characteristics, work role, formal climate and informal climate. Experience of each of these four aspects will influence the individual's perceptions of the organisation. These perceptions will, in turn, influence the individual's affective responses, including levels of commitment, to the organisation. It is interesting to note the degree of consistency between these four aspects of the organisation and the categories of antecedents outlined in Table 1.1.

3. Experiences and Tenure: Factors Responsible for the Development of Organisational Commitment

As stated previously, none of the career development theories provides clear delineation for the timing of various career stages, nor do they provide evidence that the experiences of every member of an organisation are comparable (Cooke, 1994; Morrow & McElroy, 1987). However, the theories contend that individuals move through changing organisational experiences, and that these impact on their perceptions of the organisation and work-related attitudes. Furthermore, the theories generally distinguish between three periods of career membership or tenure: pre-entry, socialisation, and advancement / stabilisation. There is some empirical evidence, reviewed in Chapter 1, that factors associated with these periods of organisational membership are linked to changing levels of organisational commitment. However, before moving into a more comprehensive discussion of these factors, it is important to note that although the factors are ascribed to different periods there is no evidence that they will not be important to some people during other periods (because individuals may perceive the organisation in different ways at different times during their membership).

(i) Pre-entry Experiences and the Development of Organisational Commitment

Although it is possible to argue that individuals who are yet to join an organisation are unable to experience the organisation, it is not unreasonable to contend that recruits or applicants will search out information about potential employer organisations from various sources before entry, or even application (e.g., recruitment officers, employees of the organisation, media depictions of the organisation). Based on this information they will hold expectations about job characteristics, work role and organisational climate. Mowday et al. (1982) suggested that individuals' expectations about the organisation (in combination with certain personal characteristics and several facets of the choice process) contribute to the development of organisational commitment.

(a) Pre-entry expectations. A few studies have been conducted to examine the direct influence of expectations on the post-entry development of organisational

commitment. Lee et al. (1992) conducted a longitudinal study of the effect of "commitment propensity" on the subsequent development of affective organisational commitment in a large sample of air force recruits. Commitment propensity is a summary index of personal characteristics, expectations and choice factors that impact on an individual's decision to join an organisation. Propensity, measured prior to entry, was found to correlate significantly with organisational commitment in all but one of six subsequent surveys, taken at different times during training. Unfortunately, the authors did not analyse the influence of expectations alone, but in combination with the other facets of the summary index. However, the results do suggest that pre-entry expectations probably had some influence on the development of organisational commitment. In contrast, Irving and Meyer (1994) did test directly the relationship between pre-entry expectations and post-entry levels of organisational commitment. They reported significant positive correlations between affective organisational commitment levels at 6 and 12 months and pre-entry expectations of reward (r = .28 and .31 respectively) and of responsibility (r = .18 and .28 respectively) for a sample of 137 university graduates. Finally, Saks (1994) found that accurate and complete pre-recruitment information about the organisation and the work expected of the applicant was related to higher levels of post-entry commitment. These results provide evidence that pre-entry expectations of the organisation are important in the development of individual levels of organisational commitment after entry.

Other studies have examined the degree to which the discrepancies between post-entry expectations and pre-entry expectations influence the development of commitment (e.g., Rosin & Korabik, 1991, who looked at job characteristics including responsibility, variety, time flexibility, and autonomy; and Wanous, 1976, who examined expectations of intrinsic [e.g., culture] and extrinsic [e.g., pay, hours required] factors). In general the results of studies indicate that actual experiences have a stronger influence on individual levels of organisational commitment than do pre-entry expectations. These results will be reviewed in the discussion of socialisation experiences.

(b) Personal characteristics. In addition to the influence of expectations, there are factors within the individual that may also influence their levels of organisational commitment. As shown in Table 1.1, Mowday et al. (1982) hypothesised that a number of personal characteristics (age, education, gender, achievement motivation, and work ethic) would influence the initial levels of organisational commitment held by recruits to any organisation. There is some empirical evidence, in addition to that reviewed by Mathieu and Zajac (1990), that these factors do influence organisational commitment early in an individual's experience with the organisation. Positive associations have been found between organisational commitment and Protestant work ethic (Kidron, 1978). Kidron argued that affective (moral) commitment was simply a manifestation of the individual's personal value standards; in this case, the individual's internal orientation toward work (i.e., work ethic). In support of this contention, Kidron reported positive correlations between the two factors for three diverse samples (i.e., employees of an insurance company, a hospital and a university). A positive correlation between organisational commitment and self efficacy in a sample of university employees was also reported by Riggs, Warka, Babasa, Betancourt, and Hooker (1994). However, on the basis that the relationship was the smallest in their study, the authors suggested that an individual with high self esteem would tend to believe that they could easily find alternative employment. Consequently, the high self esteem employee would not need to develop high levels of organisational commitment. Nonetheless, the correlation was positive and significant (r = .25), suggesting that individuals with a strong belief in themselves also had higher levels of commitment. Finally, Niederhoffer (1967) theorised that exposure to a negative work environment would lead a committed employee to become cynical. Some evidence for the theory was found in a negative association between organisational commitment and cynicism in a sample of employees from a range of organisations (Van Dyne, Graham, & Dienesch, 1994). This theory of the development of cynicism from commitment will be explored further in a later chapter of this thesis.

In summary, there is empirical evidence that expectations about job characteristics, work role, formal organisational climate and informal organisational climate, as well as a range of personal characteristics are responsible for initial or pre-entry levels of organisational commitment.

(ii) Socialisation Experiences and the Development of Organisational Commitment

The initial socialisation period in the organisation is often considered to be the most critical in the development of work-related attitudes. The earliest experiences of an organisation and "the process by which an individual acquires the social knowledge and skills necessary to assume an organisational role" (Van Maanen & Schein, 1979, p. 211) define this stage, which is perhaps the most extensively studied period of organisational membership. It is during this stage that individuals will compare their pre-entry expectations with actual, first-hand experience of all aspects of the organisation (i.e., the job, the role, the formal and the informal climates). Furthermore, it is during this period

that they will be expected to learn the skills necessary to fulfil their new roles, and will be exposed to the work attitudes of supervisors and co-workers, as well as to influences in the form of both implicit and explicit workplace norms.

(a) Socialisation tactics. Organisations vary in the socialisation experiences they provide to their newcomers, and to individuals changing roles within the organisation. Van Maanen and Schein (1979) theorised that there are six dimensions along which the socialisation experience can be described. These dimensions consist of collective versus individual experiences (i.e., training as a group or as an individual); formal versus informal (i.e., newcomers are exposed to a distinct training program and / or on-the-job training); sequential versus random (i.e., the sequence of steps to the target role are well defined or may be unspecified); fixed versus variable (i.e., the degree to which each step in the learning process has a defined timetable from specific to unknown); serial versus disjunctive (i.e., a specific role model, incumbent in the target role, is able to teach the recruit versus the absence of such a role model); and investiture versus divestiture (i.e., the personal characteristics of the newcomer are valued and strengthened versus the newcomer is forced to learn new skills or abilities). Assuming that the socialisation experience within an organisation will be combination of these dimensions, and that this experience will differ between organisations, Van Maanen and Schein (1979) suggested that the development of employee attitudes will depend on the form that the experience takes, and will, therefore, differ across organisations.[7]

Recently, Major, Kozlowski, Chao and Gardner (1995) concluded that the development of different levels of organisational commitment can be related to the type of socialisation process employed by the organisation. This statement was based on

---

[7] It should be noted that although Van Maanen and Schein (1979) postulated that the effect of socialisation on the development of attitudes is strongest when the individual is a newcomer, they also suggest that socialisation occurs during any changes in the organisational position of the employee (i.e., when they are promoted or transferred to a new task or as they become more entrenched in their present position). The implication of this is that experiences of various aspects of the organisation and its culture act to change individual's attitudes and behaviours so that they "fit" into the organisation. This links to the opinion of lifespan researchers that the critical aspect of examining development is to test the dynamic man-environment links.

empirical evidence provided by Miller (1988) and Allen and Meyer (1990a). In the first study, Miller (1988) reported that higher levels of commitment were related to collective forms of employee education and participation (i.e., socialisation experiences). In a more comprehensive study, Allen and Meyer (1990a) found that newly hired management graduates reported higher levels of commitment if they were employed by organisations that had formal training with large groups of newcomers and that gave clear details of career paths. Individuals employed by organisations with less structured training programs reported lower levels of commitment. It is interesting to note that relationships were not found between socialisation tactics and commitment levels at 12 months. This result suggested that although formal training provided by the organisation influences early levels of organisational commitment, factors unrelated to initial socialisation processes become increasingly influential after a relatively short period of experience with the organisation.

(b) Met-expectations. There are two possible explanations for the influence of experience on commitment levels. First, experiences may confirm the individual's expectations and thereby enhance their positive attitude toward the organisation (Meyer et al., 1991; Wanous, 1976). Alternatively, positive experiences may result directly in positive attitudes to the organisation. The latter of these explanations appears to be gaining support in the organisational commitment literature. For example, Buchanan's (1974) cross-sectional study indicated that absolute levels of group experiences (peer group cohesion and group attitudes to the organisation) and experiences confirming personal importance (job achievement and hierarchical advancement) were more important in the development of commitment than met-expectations.

More recently, Irving and Meyer (1994) conducted a study designed to compare the influence of expectations, experiences, and met-expectations (i.e., the difference between expectations and experiences) on the development of commitment. They found modest support for the hypothesis that met-expectations (i.e., the extent to which expectations were confirmed by experiences) regarding comfort (i.e., comfortable working

conditions, security, and role clarity), reward (i.e., career development opportunities, salary, and recognition or respect for performance) and responsibility (i.e., task identity, importance, independence) influence organisational commitment. However, they reported stronger support for the hypothesis that experiences of these three aspects of the organisation impact directly on the development of affective commitment. Furthermore, the strongest relationship was between commitment and experience of rewards. In short the results suggested that differences in the experience of different aspects of the organisation influence an individual's level of organisational commitment. In other words, it seems that experiences directly impact on attitudes rather than by causing changes in expectations which in turn impact on attitudes.

(c) Experience of supervisors and work groups. As mentioned, the strongest relationship reported by Irving and Meyer (1994) was between organisational commitment and experience of rewards. Two items within the reward category are of interest. One measures the degree to which the organisation allows the respondent to "work for superiors you admire and respect", and the other measures the degree to which the respondent is "respected by other people". The existence of a relationship between the development of general work attitudes and leader or group attitudes and behaviours was outlined in Chapter 1.

Several studies have examined specifically the influence of supervisors and co-workers on the development of organisational commitment. Some suggest that the work group mediates the development of commitment. For example, Ostroff and Kozlowski (1992) reported that individuals who increased the amount of information they got from supervisors about the work and work environment, and thereby developed mastery over their task-related duties, became more committed to the organisation. In a similar finding, Major et al. (1995) reported that favourable role development relationships with co-workers and supervisors (i.e., work experiences) reduced the negative effect of un-met expectations on the subsequent development of organisational commitment. Conversely, Leiter and Maslach (1988) found a strong relationship between low levels of

organisational commitment and unpleasant supervisor contacts, despite the fact that the absolute number of negative contacts was quite low. Finally, a number of studies have reported that the degree to which a supervisor included subordinates in decision-making related to work assignments, performance evaluations, and distribution of rewards influenced individual levels of organisational commitment (Kinicki & Vecchio, 1994; Orpen, 1993; Van Dyne et al., 1994).

On the other hand, some researchers have concluded that the development of commitment is simply a direct reflection of the local norms as set by the work group (Becker et al., 1995; Kirchmeyer, 1995). Whichever is the case, as Mathieu and Zajac (1990) have pointed out;

> The influences of group relationships and organisational properties have been examined in only a few studies and represent neglected areas. Wiener (1982) suggested that organisational environments may act as normative influences and affect members' organisational commitment by shaping their belief systems. In this sense, organisational contexts may interact with individuals' predispositions to become committed, thereby implying moderated relationships. (p. 181)

These relationships are yet to be well established.

In summary, the development of organisational commitment during the socialisation stage should be related to experiences of the organisation, with higher levels of commitment resulting if these are positive. To some degree there may be a moderating effect related to the pre-entry expectations held by the individual so that higher levels of commitment will result if experience confirms expectations. Furthermore, the influence of the work group (supervisor and co-workers) will be strong, with either a moderating or direct influence on the development of commitment to the organisation.

(iii) <u>Advancement / Stabilisation Experiences and the Development of Organisational Commitment</u>

Although some of the factors that impact on attitudes during the socialisation

period will also have an influence during the advancement / stabilisation period, many of the former factors may no longer be important to the individual. During the advancement / stabilisation period of organisational membership, individuals first try to maximise their position and then try to maintain that position. Mowday and his colleagues (1982) hypothesised that factors that covaried with tenure, rather than tenure itself, would influence commitment levels. They included in this set of factors; investments, social involvements, job mobility and the degree to which alternatives had been sacrificed in order for the individual to remain with the organisation. There is some correlational evidence for relationships between these factors and commitment, (e.g., Mathieu & Zajac, 1990; Mowday et al., 1982; Sheldon, 1971; Steers, 1977), but there is yet to be a study that demonstrates exactly how these factors influence the developmental course of organisational commitment.

In theory, it is during this period that the "organisationally mature" individual is looking for reward for loyalty, and comes to believe that the organisation has both transactional obligations (i.e., obligations which are specific, monetizable, and of a "quid pro quo" nature such as opportunities for advancement, high pay, and merit pay) and relational obligations (i.e., obligations which serve to maintain the employer-employee relationship such as training, job security, and personal development; Robinson, Kraatz, & Rousseau, 1994) to him or her. Therefore, things that signify the organisation's positive evaluation and recognition of the employee, and which are perceived by the employee to be supportive of them, should be linked to organisational commitment (Eisenberger, Huntingdon, Hutchinson, & Sowa, 1986; McFarlane Shore & Martin, 1989; Schwarzwald, Koslowsky, & Shalit, 1992).

(a) <u>Transactional rewards: Pay and promotion.</u> The two critical areas in which employees seek evidence of perceived worth are pay and promotion. These are the transactional obligations. It is interesting to note that it seems to be equity in compensation and promotional decisions, rather than simply the absolute levels of pay or promotion, that is important to the individual. For example, Folger and Konovsky (1989)

reported that the degree to which an employee perceived decisions about levels of pay to be fair was related more to organisational commitment than the perception that the actual amount was fair. In another study, Cohen and Gattiker (1994) reported that satisfaction with pay had a stronger relationship to organisational commitment than actual pay levels. Along the same lines, studies have shown that commitment is related to opportunities for promotion (e.g., Furnham & Drakeley, 1993; Marsden, Kalleberg, & Cook, 1993; Wilson & Spence Laschinger, 1994; Wright, 1990) or equity in promotional decisions (e.g., Schwarzwald, et al., 1992) rather than actual promotion. In other words, in evaluating transactional rewards, it is satisfaction with the system (i.e., a belief in the equity of the systems), rather than the actual outcomes, that generate positive perceptions of the organisation.

(b) Relational rewards: Recognition and influence. Many studies have found a positive relationship between commitment and measures of recognition (i.e., relational obligations). For example, Knoop (1994) reported that higher levels of organisational commitment in a group of nurses were related to pride in the organisation, to having a considerate supervisor, to the perceived degree of influence in the organisation and to receiving recognition. In other studies, both Wilson and Spence Laschinger (1994) and Furnham and Drakeley (1993) reported relationships between organisational commitment and the degree to which the individual felt empowered by the organisation, and believed that the organisation provided information, support, opportunity and resources. The finding that perceived influence in the organisation, and specifically participation in decision making, is related to commitment is often reported in studies of commitment (e.g., Knoop, 1994; Niehoff, Enz, & Grover, 1990; Shore, Thornton, & McFarlane Shore, 1990; Wright, 1990).

One inference that could be drawn from these studies, is that supervisory methods and work group relations are important. Specifically, the nature of these relationships may influence the way in which the individual perceives relational rewards. In a study designed specifically to examine the influence of supervisory tactics

on organisational commitment, Wright (1990) reported that higher levels of commitment were related to a people-oriented supervisory style for employees who were career-oriented (i.e., those that desired career advancement), and to cohesive work group and task-oriented supervisory style for non-career employees (i.e., those for whom work is simply "a job"). In other words, he demonstrated that relationship between commitment and supervisory style was moderated by individual differences in attitude to work and career. In the case of individuals striving to advance their careers, commitment was higher if their supervisor took an interest in them as individuals (e.g., acted as mentors). On the other hand, the commitment levels of individuals who were content with maintaining their present position, without desire to advance their careers, were linked to the degree to which their supervisor helped them to complete their work. In addition, individuals in this group who had more cohesive work group relationships reported higher levels of commitment.

In summary, during the advancement / stabilisation period of a career, individual levels of organisational commitment are heavily dependent on the feeling that one is valued and rewarded by the organisation. This is strongly linked to the experience of equity in the procedures related to pay and promotion, to the experience of participation in decision making processes, and to the degree of satisfaction with supervisor behaviour and work group relationships. Consistent with these findings, Marsden et al. (1993) concluded that commitment in experienced employees could be enhanced if employers fostered an atmosphere of legitimacy within the workplace.

4. Conclusion

The discussion in this chapter has focussed on the way in which experience in an organisation may impact on the development of organisational commitment. Within the framework of general theories of individual development, experiences related to ageing are hypothesised to cause and modify attitudes and behaviours. Along the lines of this argument, but within the context of organisational membership, employee attitudes are expected to develop as a result of experiences with the organisation. Specifically, it has

been argued that attitudes develop as a result of both expectations of and experience with the leadership (formal) climate and work group (informal) climate, job characteristics, and work role. Furthermore, different experiences of these aspects of the organisation may influence the development of commitment at different times during an individual's career.

Experience of the formal organisation is related to the individual's personal experience with, and perception of, various aspects of the formal structure of the organisation. Therefore, aspects such as perceived organisational support, equity in decisions related to pay and promotion, participation in decision-making, and communication procedures are included in this category. Experience of informal aspects of the organisation reflects any experience that is linked to the employee's immediate supervisor or work group, and is not necessarily formally sanctioned by the organisation or part of the formal structure of the organisation. Therefore, this category includes factors such as supervisor and co-worker attitudes to the organisation, social involvement and perceived commitment norms. Finally, experiences of job characteristics and work role include factors such as role ambiguity and conflict, and skill variety.

In addition, each individual will bring personal characteristics into the organisation that will influence their attitudes directly and indirectly by influencing the way in which they perceive and experience the organisation. These personal characteristics include self esteem, work ethic, and cynicism.

Many studies have examined the individual relationships between these experiences and characteristics and organisational commitment, providing a significant degree of evidence confirming the existence of these relationships. However, there is yet to be a more systematic study that includes all of these factors and which examines the changing relationships over time. However, as outlined in Chapter 1, it is necessary to demonstrate the existence of a developmental trend before attempting to examine these relationships. In addition to providing a framework for the relationships between commitment and experience, the lifespan literature describes the appropriate

methodology for a developmental study. The manner in which this methodology can be used to study the development of work-related attitudes is discussed in the next chapter.

Chapter 3

Research Methodologies for the Study of Development

Chapter 2 utilised lifespan developmental theory to describe a framework within which to review studies that have examined the factors purported to influence individual levels of organisational commitment. These studies were generally based on the supposition that changes in individual levels of commitment occur, and that the antecedent factors under consideration could, if shown to be related strongly to commitment, be manipulated to increase commitment. However, while studies have frequently found a range of commitment levels in a group of individuals (i.e., interindividual differences), there is, as discussed in Chapter 1, little direct empirical evidence of changes in an individual's commitment level over time (i.e., intraindividual differences or developmental change). The present chapter outlines a study design, taken from lifespan theory, that overcomes some of the problems inherent in the study of development.

At this point it should be noted that the concepts presented in this chapter are derived mainly from literature related to the development of child behaviour and from the lifespan theory of development. Primarily, this is because there has not yet been an in-depth discussion of the appropriate methodology for testing hypotheses about the development of attitudes or behaviour in the organisational and management literatures.[8] Nonetheless, it will be demonstrated that the concepts taken from the developmental literature can be applied within the organisational context.

1. Methods in Developmental Research

The primary aim of developmental studies is to examine the influence of ageing on a specific dependent variable. Kessen (1960) described developmental relationships as

---

[8] Exceptions to this are the recently reported work of Vandenberg and Self (1993) and Meyer and Gardner (1994). These authors have utilised structural equation modelling analysis to examine how beta (recalibration of the measurement instrument by respondents between measurements) and gamma (changes in the underlying construct) changes confound the measurement of true development (alpha) changes. However, this work is in relative infancy and, although removing confounding measurement influences, it does not allow the developmental function to be identified, free of cohort and environmental effects.

"orderly and lawful" (p. 36), and definable mathematically. The mathematical formula, or functional statement, used to describe development took the form:

$$R = f(A)$$

where R is the response (or a description of the behaviour) and A is age.

Although advocating this reductionist approach, Kessen went on to state that the functional statement in this form was actually of limited practical value to developmental researchers. He presented three reasons for this. First, he argued that development might be related to factors, other than age, that were related to time. Second, he pointed out that the simple functional statement did not go past describing the change to explaining the change. In other words, the factors responsible for the change with age are not highlighted. Finally, he suggested that the simple function could not take into account individual differences in change. In other words, if based on data from a group of respondents (data which are necessary for the accurate description of a developmental function), the function veils any individual differences in response. His subsequent discussion of research designs for developmental problems suggested that cross-sectional studies should first be used as exploratory studies to discern the "general character of a developmental pattern" (Kessen, 1960, p. 52). Following description of the character of the trend, longitudinal studies should be used to make a closer examination of variations in the responses of individuals.

(i) <u>Cross-sectional and Longitudinal Designs</u>

Cross-sectional designs compare members of different age groups at a single point in time. By choosing groups which fall along the age continuum, description of a developmental trend can be established. On the other hand, longitudinal designs repeatedly measure the same people over a period of time.[9] This enables an examination of changes in each individual over that period, providing an accurate picture of the

---

[9] In fact, there are two forms of longitudinal designs. The most frequently used approach involves the repeated measures of the same individuals. The second involves taking independent random samples from the same cohort, but different individuals, over successive times of measurement (Schaie, 1965). This, in common with cross-sectional designs, disallows the examination of changes within the individual.

development of each individual, as well as of the group as a whole. In general, cross-sectional designs have tended to dominate the literature, primarily because of the ease with which data can be collected. By contrast, the more valid longitudinal approach presents major logistical difficulties, especially when undertaken across years and decades (Cook & Campbell, 1979). However, both designs are subject to confounding influences that may obscure the true developmental pattern. Specifically, there are two major confounds in most developmental studies which we will examine in the next section: cohort effects and time of measurement effects.

(ii) Confounding Influences in Developmental Methodologies

Schaie (1965) argued that Kessen's (1960) developmental function should be extended to include three effects that should explain any changes in the behaviour under examination. Specifically, the response (R) is described as a function of the age of the organism, the cohort to which the organism belongs, and the time at which the measurement is made, i.e.:

$$R = f\,(A,C,T),$$

where R is the response (behaviour), A is an index of age, C is an index of features common to the cohort group, and T is the state of the environment at the time of measurement.[10] Given the importance of distinguishing these effects, a more detailed examination of the three is warranted.

First, cohort differences are the net differences in scores between generations that result from factors unrelated to age. For example, a group of people who grew up during times of depression would be less likely to have attended school than a group of people who grew up during more prosperous times. Differences between these two groups on

---

[10] Of particular interest to the present study is Schaie's (1965) definition of "age" as "the number of time units elapsed between the birth (entrance into the environment) of the organism and the point in time at which the response is recorded" (p. 93). Within this definition, organisational tenure can be considered an age construct. Furthermore, Schaie discusses "responses" in terms of "scores" (i.e., units of measurement dependent on the behaviour being studied).The model can, therefore, readily extend to encompass measures or scores of individual's attitudes toward an organisation. Schaie's model, therefore, can be used for the purposes of the present study to describe the development of organisational commitment with tenure in the organisation.

various paper and pencil tests may, therefore, be attributable to lower levels of literacy in the former group rather than to their age. Confounding by cohort effects is a common problem in studies that use cross-sectional designs.[11]

Time of measurement differences are the net changes in the sample's score between measurements that result from environmental effects rather than from ageing. For example, major natural or political events (i.e., natural disasters, economic Depressions, or rapid improvements in welfare or education systems) that occur between measurement times may result in changes in the dependent measure independent of the ageing of the respondents. Confounding by time of measurement effects is a common problem in studies that use longitudinal designs.[12]

Finally, age differences are the net changes in scores as a result of ageing. These changes represent "true" developmental change. The problem with both cross-sectional and longitudinal designs is that any observed differences in the performance or attitudes of the sample may reflect both true development and influence from either cohort or time of measurement effects respectively. Considerable debate has occurred in the developmental literature regarding the form of an appropriate methodology that might be used to differentiate "true" developmental change from artefactual change.

On the basis of the revised function, Schaie (1967) presented a detailed

---

[11] Another problem that may occur in cross-sectional studies is selective sampling. This occurs when a sample is not representative of the general population from which that sample was drawn. For example, if satisfied employees are more likely to return surveys about management, the result for the sample will be skewed toward positive responses. If this occurs in one or more of the samples drawn for a cross-sectional study, the results will not be an accurate reflection of the developmental trend. Continuing the example, in a group of new employees those who are satisfied with their managers may be more likely to respond, whereas in a comparison group of longer-serving employees those who are dissatisfied with management may be more likely to take the opportunity to complain about management. The "developmental" trend would appear to be from high to low satisfaction. However, this trend is not actually a valid representation of the complete population of employees.

[12] Although not specifically a time of measurement effect, selective attrition may also confound the results of longitudinal studies. In this situation, original respondents are not all tested at later times. In some cases, this loss of participants is related to a specific factor. For example, less satisfied workers may be more likely to leave their employer. Therefore, a study of worker attitudes toward management may incorporate only the more satisfied employees, skewing the results toward a positive, but inaccurate, view of management. If selective attrition occurs across a longitudinal study, the results cannot be generalised to all individuals.

developmental model which made it possible to distinguish cohort and time of measurement effects from true developmental effects. An example of the general model proposed by Schaie is shown in Table 3.1. (It should be noted that this table describes the developmental model in a form appropriate to the present study. However, the original example given by Schaie described changes in an unspecified behaviour of six age cohorts across a supposed lifetime of 100 years and an experimental period of 200 years.) A study in which data are collected using this model is known as a "cross-sequential" study.

Table 3.1.
Example of Schaie's (1967) General Model for the Study of Developmental Problems.

Cohort	Age[a]								
1990	0	1	2	3	4				
1991		0	1	2	3	4			
1992			0	1	2	3	4		
1993				0	1	2	3	4	
1994					0	1	2	3	4
Time of measurement	1990	1991	1992	1993	1994	1995	1996	1997	1998

[a] In this case, Age = Organisational Age (Tenure in the organisation).

Note. Horizontal differences = Longitudinal differences (i.e., differences resulting from repeated measures; may be a result of age changes or environment at time of measurement).
Vertical differences = Cross-sectional differences (i.e., cross-sectional differences between cohorts; may be a result of age changes or cohort differences).
Diagonal differences = Time-lag differences (i.e., differences between same tenured groups but at different times of measurement; may result from environment or cohorts).

2. The Cross-sequential Design

On the basis of his model (as described in Table 3.1), Schaie (1967) proposed methods for separating the three sources of developmental differences. Specifically, he demonstrated that each of the three methods of data collection incorporated in the model (i.e., cross-sectional, longitudinal and time-lag) included two of the differences (i.e., age,

cohort or time of measurement), such that:

$$CSd = Ad + Cd$$

$$LOd = Ad + Td$$

$$TLd = Td + Cd,$$

where: CSd = Cross-sectional differences
LOd = Longitudinal differences
TLd = Time lag differences
and: Ad = Age differences
Cd = Cohort differences
Td = Time differences

Simple algebraic substitution allowed Schaie to restate the three equations so that:

$$Ad = \frac{CSd - TLd + LOd}{2}$$

To determine age differences, then, Schaie argued that the appropriate research design was a sequential combination of cross-sectional and longitudinal (repeated measures) methods. The minimum data collection requirement, according to this model, was two cohorts measured at two separate times, with an additional, independent sample taken from each cohort but measured only at the second time of measurement. To complete the design, a random sample taken from a cohort with the same age as the original "youngest" sample was measured at the second time of measurement. This allowed a series of cross-sectional, longitudinal, cross-sequential and time-sequential analyses whereby all of the possibilities of confounding could be tested and eliminated and the presence of a "true" developmental function (i.e., $R = f(A)$) identified.

Baltes (1968) refined the model, arguing that time of measurement was an unnecessary component of the function (since the third component of the function is unequivocally fixed through the definition of the age and cohort components). Baltes concluded therefore that cohort and age were sufficient to map the developmental function, and that age and generation effects could be extracted if a study was designed where individuals assigned to specific levels of each of these factors. In other words, age and generation effects could be differentiated using repeated measures (to show age effects) from different cohorts (to show generational effects). He viewed the minimum

requirement for a valid developmental analysis as a 2 x 2 design in which two groups of cohorts are observed at two points in time. What follows from this derivation is that a much simpler design than that would allow analyses to describe the "true developmental" (age change) effects. Furthermore, the design can be strengthened by adding cohorts and tenure groups, and analysing a series of intersecting 2 x 2 designs (see Table 3.2). Schaie and Strother (1968) argued that a true age difference would only be shown if the cross-sectional and longitudinal results were identical.

Table 3.2

Example of a Cross-Sequential Design, Showing a Series of Intersecting 2 x 2 Designs Which Can be Analysed to Isolate Developmental Changes.

Year of recruitment	Tenure (Years in organisation)								
1990	0	1	2	3	4				
1991		0	1	2	3	4			
1992			0	1	2	3	4		
1993				0	1	2	3	4	
1994					0	1	2	3	4
Year of measurement	1990	1991	1992	1993	1994	1995	1996	1997	1998

Note. Highlighted sections show some of the single 2 x 2 designs, each of which alone would allow description of developmental changes using this design.

3. Conclusion

In 1975, after a decade of debate, Schaie and Baltes wrote an article that clearly outlined their models and, by virtue of simply clarifying definitions, resolved their differences. Their conclusion was that an age-cohort (2 x 2) design was indeed sufficient to provide all of the data points necessary to describe developmental trends, and that age-time and time-cohort designs should provide approximations of the developmental trend. Furthermore, they agreed that a complete combination of cross-sectional and

longitudinal sequences (i.e., a cross-sequential design incorporating a series of 2 x 2 matrices) would enable the differentiation and explication of the developmental origins of any observed changes. In other words, they concluded that a cross-sequential design such as that shown in Table 3.2, would enable the researcher to identify and separate the effects of cohort, and time of measurement, from the true developmental trend (i.e., the age effect).

The aim of the present study therefore was to conduct a cross-sequential study of the development of organisational commitment, identifying any developmental trends and, if trends were observed, highlighting the experiences and personal characteristics related to these trends.

Chapter 4

A Cross-Sequential Study of the Development of Organisational Commitment in Police Organisations

1. The Study of Development in Organisations

(i) Selecting an Appropriate Organisation

Having established that a cross-sequential design is appropriate for the study of development, it is important to highlight the difficulties of using this design in organisational studies. As mentioned earlier, high levels of turnover in organisations, leading to selective sampling and attrition in the study, make it difficult to maintain longitudinal data collections for longer than a few years. In addition, cross-sectional data collections based on tenure may be restricted by the number of recruits who were employed at any one time (i.e., if only a few individuals were recruited each year, the population available to sample is subsequently small). Finally, in designs where tenure is the "age" index being studied, having cohorts with wide biological (birth) ages may result in some confounding since individuals with dissimilar ages may by virtue of their age have different attitudes (Cooke, 1994). These problems must be considered when selecting an appropriate organisation for a cross-sequential study.

Essentially, to overcome these problems, the target organisation must be one in which newcomers are employed as large groups (i.e., provide sufficient numbers of people in each cohort who have nearly identical early experiences of the organisation) and who are approximately the same age when employed (i.e., reducing the influence of age on developmental trends). Furthermore, the organisation should have reasonably well-defined socialisation practices, thereby ensuring that the newcomers' experiences are standardised. Finally, in order to ensure that individual differences between cohorts do not confound developmental differences, low levels of turnover should be a feature of the organisation.

In Australia, police organisations would appear to fit these criteria. Specifically, people wishing to become police officers must join a police department. Thus, police

organisations reflect a vocational -- not simply an organisational -- choice on the part of their employees, and are therefore likely to have a fairly profound influence upon, and dependence on, the organisational commitment of their employees. These organisations tend to employ relatively large groups of young recruits, with intakes occurring at least once in most years. Furthermore, police organisations are noted for their formal socialisation practises (i.e., training at police academies) thereby providing the opportunity to evaluate influences from this factor. In addition, turnover in most of the Australian police organisations has been quite low in the past few years.[13] Finally, police organisations are attractive populations within the context of the present study since previous work with police provides some insight into the manner in which their organisational commitment develops.

In summary, previous research suggests that police recruits enter the organisation with high levels of commitment that decrease across formal academy training, but that these levels increase once the recruit begins patrol work (Van Maanen, 1975). Early studies reported levels of commitment for police that were higher than for employees in other occupations (Aldag & Brief, 1977; Jermier & Berkes, 1979; Van Maanen, 1975). However, more recent studies have found relatively low levels of commitment, especially for more experienced officers, in Australian police organisations (James & Hendry, 1991; Savery, Soutar, & Weaver, 1991; Wilson, 1991). One explanation for the latter finding is that police officers' commitment levels decrease as their experience of the organisation increases their cynicism through time (Niederhoffer, 1967; O'Connell, Holzman, & Armandi, 1986; Singer, Singer, & Burns, 1984). In summary, this preliminary evidence that police officers' commitment levels develop with tenure as a result of experiences with the organisation, in concert with the characteristics of these organisations that make them appropriate for the cross-

[13] For example, in 1995/96, turnover rates (total and [due to resignation]) were 5% (4%) for the Northern Territory; 4% (2%) for Queensland; 3% (2%) for South Australia; 6% (2%) for Tasmania; 7% (unknown) for Western Australia; and 5% (3%) for New South Wales. The rates for the Australian Federal Police and the Victorian Police Service were not reported in the Annual Reports.

sequential design, suggests that a police organisation in Australia would provide a suitable population for the investigation of the development of organisational commitment.

(ii) Generalising Attitudinal Data Across Countries

Studies of attitudes can be limited in their generalisability by country of origin. This is because cultural influences, linked to country of origin, tend to act on people's beliefs and feelings about many issues -- including their attitudes toward their work and employer. For example, one study of blue collar employees from a number of countries found that Australians tend to be more committed to their employing organisation than employees from North America and Europe (Drago, Kriegler, Tulsi, & Wooden, 1988). In contrast, a recent study using a more acceptable measure of organisational commitment suggested that the commitment of Australian police officers was lower than their overseas counterparts (Wilson, 1991). It should be acknowledged that the research with which Wilson compared her results was over fifteen years old, and the comparison should therefore be considered tentative. However, research in other occupations also supports the possible existence of differences resulting from country of origin in levels of employee commitment (Near, 1989; Randall, 1993). In order to assess the generalisability of the results in the current study it was therefore necessary to concurrently obtain organisational commitment data from a police service in another country (e.g., New Zealand).

(iii) Defining the Limits of the Cross-Sequential Design

For the purposes of the present study, a cross-sequential design was selected that would allow description of the development of organisational commitment across the first eight years of tenure in a police organisation. In addition, there has been interest in the "plateau" effect that has been found to operate strongly in police organisations (Burke, 1989). Specifically, it has been shown that officers with greater than 15 years of experience are prone to high level of dissatisfaction with organisational factors (e.g., Hart, Wearing, & Headey, 1994; Hunt & McCadden, 1985; James & Hendry, 1991), an

attitude that is strongly related to organisational commitment in both police (Wilson, 1991) and non-police (Mathieu & Zajac, 1990) samples. On this basis, the study design was extended to include cohorts with 15 to 17 years of experience. The complete cross-sequential design is shown in Table 4.1.

Table 4.1

Cross-sequential Study of Organisational Commitment in Police Organisations.

Cohort	Year of recruitment	Tenure (Years in organisation)		
10	1977	17	18	19
9	1978	16	17	18
8	1979	15	16	17
7	1987	7	8	9
6	1988	6	7	8
5	1989	5	6	7
4	1990	4	5	6
3	1991	3	4	5
2	1992	2	3	4
1	1993	1	2	3
Year of measurement		1994	1995	1996

The first aim of the study was to identify the manner in which organisational commitment develops with tenure in the police organisation. Based on previous research, it was expected that commitment levels would be high for newcomers, would then drop considerably across the first few years of tenure, but would then begin to improve with increasing tenure. The cross-sectional data collected at the first time of measurement would provide preliminary evidence for, or against, the existence of a trend. Evidence for the trend would be the basis for continuing with the cross-sequential data collection, which, in turn, would provide data with which to map the trend as a developmental function (against tenure), and enable the evaluation of influences from cohort and time of testing (environmental) factors. A lack of evidence for the trend would necessitate reconsideration of the study, with a reevaluation of previous research and the assumed developmental contributions.

The influence of experience on the development of work related attitudes has been discussed in previous chapters. As was also discussed, it is important that a developmental trend is proven prior to attempts to explain the trend. However, to maximise the data collected for the present study, and given that there has been some previous evidence of a trend, it was assumed that evidence for a developmental trend would be found in the initial data collection, and that the influence of personal characteristics and work-related experiences would be of interest. Therefore, measures were selected to operationalise the experience factors, as well as measures of important personal characteristics, and some of these measures were included in the first, cross-sectional round of data collection.[14]

To summarise, the aim of Survey 1 (conducted in 1994) was to collect cross-sectional data to provide preliminary evidence of a developmental trend in the organisational commitment levels of police officers with between 1 and 17 years of tenure in an Australian police service and in the New Zealand police organisation. In addition, the survey was designed to collect information about the relationships between organisational commitment and characteristics of the person, role, formal, and informal organisation factors that had been identified previously as important to the development of commitment.

2. Survey 1: A Cross-sectional Study of Organisational Commitment in Australian and New Zealand Police Officers

(i) Method

(a) Participants. Participants were selected at random from the personnel data base of their police organisation. Ten cohorts of officers were selected on the basis of the year that they finished formal training and began work as probationary constables. These cohorts encompassed the years 1977-1979 and 1987-1993 inclusive, providing

---

[14] In order to maximise returns rates, it was necessary to make the survey a reasonable length. Therefore, some measures were excluded from the first round of data collection. These measures were included in Survey 2, when measures that had not shown relationships with commitment in Survey 1 were removed.

cross-sectional data across 17 years of employment in the police service.

Australian police. The first sample consisted of officers from the largest police department in Australia (New South Wales). This department employs approximately 13,000 police officers in all aspects of policing, in both rural and metropolitan areas. One hundred and twenty officers from each of the ten cohorts were mailed surveys during January 1994. The overall response rate for this sample was 61.6% (n = 739), a rate which can be considered good when compared with previous studies of mail-out, non-anonymous surveys (Fuller, 1974).

Twenty-nine of the officers recorded that they had rejoined the department after resigning following earlier service. These officers were excluded from the analysis on the basis that their previous experience with the department would have provided them with insights into the police organisation which might have affected their current work-related attitudes (Saks, 1994).

New Zealand police. The second sample consisted of officers from the New Zealand police department and was constructed along similar lines to the Australian sample. The New Zealand department employs approximately 7,000 officers, with duties much the same as those of the Australian sample. Fifty officers from each of the ten cohorts (i.e., n = 500) were mailed surveys, with a response rate of 67.6% (n = 338). Ten of these officers were excluded from the analysis because they had prior police experience.

The smaller number of respondents included in the New Zealand data collection reflects the fact that the New Zealand data collection was intended to provide comparative cross-sectional, rather than longitudinal, data, and as a consequence did not present problems of attrition. In addition, the fact that the New Zealand police organisation was half the size of the Australian organisation meant that a sample half the size provided a group of participants that was, proportionately, as representative as the Australian sample.

(b) Procedure. The measures used for this study were compiled into an "Attitudes to the Police Organisation Survey". A copy of the survey, a letter explaining the study, and a reply-paid envelope were mailed to each participant at their work address. They were asked to complete the survey and return it in the enclosed reply paid envelope. The Australian sample was also asked to complete an ethics approval form (Appendix 4.1), which allowed code numbers to be assigned to their survey forms to enable identification of nonrespondents. These officers were sent a reminder letter after four weeks. After a further four weeks, a second copy of the survey was sent to Australian participants who had not responded by this time. The New Zealand surveys were anonymous and nonrespondents could not be identified.

(ii) Measures: Organisational Commitment[15]

Porter and Smith's (1970) Organisational Commitment Questionnaire (OCQ) is the measure used most frequently in the empirical literature. The measure has substantial evidence of both validity and reliability (Bateman & Strasser, 1984; Cook et al., 1981; Lee & Johnson, 1991). Specifically, Mowday et al. (1974) reported the results of a series of studies that demonstrated internal consistency reliability, test-retest reliability, convergent validity, discriminant validity and predictive validity. More recently, Mathieu and Zajac (1990) reported a mean internal consistency (alpha) of 0.88 (SD = 0.04) across more than 80 studies included in their meta-analysis. In addition, both Cohen (1996) and Dunham et al. (1994) reported the results of discriminant analyses that indicated that the OCQ was a reasonable measure of unidimensional, affective organisational commitment (see also Shaub, 1991; Vandenberg & Self, 1993).

Reichers (1985) suggested that the continued use of the OCQ would lead to increased consistency and coherence within the literature devoted to organisational commitment, assisting researchers interested in meta-analytic studies of moderating

---

[15] The items for each of the measures are provided in Appendix 4.1. The survey was compiled with the OCQ first (to maximise responses to this measure), then with each of the other measures placed in a random order. Where response scales were the same, items from different measures were mixed to reduce response bias. Copies of the actual surveys are available from the National Police Research Unit, Adelaide, Australia.

influences (Cohen, 1992). In view of this, and the fact that the OCQ has been used previously with police samples in Australia (Savery et al., 1991; Wilson, 1991), the OCQ was selected as an appropriate measure of commitment for this study. The measure includes 15 items (6 items are reversed scored) for which the scores are averaged to provide an overall level of organisational commitment, from 1 (very low) to 7 (very high).

In view of the fact that commitment to the goals of an organisation would logically be dependent on the individual's understanding of those goals, a single item measure of the degree of understanding was also included in the survey. This item was taken from a questionnaire designed by external consultants to be used by Middleton (1992) in an internal survey of officers of the Victorian (Australia) police department. This item, "I have a good understanding of what the Service Corporate goals are", was scored on a 5-point format, from 1 (strongly disagree) to 5 (strongly agree).

(iii) Measures: Personal Characteristics

Measures were selected to operationalise each of the factors, where possible, on the basis of demonstrated reliability and validity. In addition, measures which had been used previously in studies of organisational commitment were favoured.[16] Unless otherwise described, all of the measures were scored on 7-point response scales (1 = Strongly disagree to 7 = Strongly agree).

(a) Demographic data. Respondents were asked to provide demographic data that included age, gender, years of experience, age at recruitment, time spent in training, rank, current posting (i.e., duties), and length of service in current posting.

(b) The Protestant Work Ethic Scale. This scale (adapted by Kidron, 1978, from Mirels & Garrett, 1971) measures "a dispositional variable characterized by a belief in the importance of hard work and frugality which acts as a defence against sloth, sexual temptation and religious doubt" (Cook et al., 1981, p. 140). It consists of 19 items, with 3

---

[16] One concern with using self-report measures only is the possibility of mono-method bias. A recent meta-analysis of percept-percept inflation (i.e., artificial inflation of covariation due to use of self-report measures to measure both variables) reported that bivariate relationships involving organisational commitment were not inflated (Crampton & Wagner, 1994).

items reversed scored, and the scores are averaged to provide an index of agreement with the work ethic. Kidron (1976, 1978) reported split-half reliabilities of between 0.67 and 0.80 with four different samples. In their meta-analysis, Mathieu and Zajac (1990) reported a mean reliability (i.e., average of reliability for each of the studies included in the analysis) for the scale of .76 across seven studies.

(c) Commitment Propensity. Given that the participants in this survey were surveyed after entry into the organisation, it was not possible to collect a pre-entry measure of commitment propensity. However, as will be outlined, it was possible to rework a measure of this factor to gain a retrospective estimation of commitment propensity. Based on Mowday et al.'s (1982) theoretical model, Lee et al. (1992) designed a measure of commitment propensity, where commitment propensity was defined as "the aggregation of specific personal characteristics and experiences, which individuals bring to the organisations, such that a stable attachment to the organization is more likely to develop" (p. 17). The scale incorporates three components: personal characteristics (including desire for a career in the organisation, familiarity with the organisation, self-efficacy, and self-confidence), expectations (i.e., understanding of the organisation), and organisational choice factors (including volition of choice and sacrifice in choice). Lee et al.'s scale included 33 items which were written specifically for the military site of their study. Furthermore, some of their items were measured on 5-point and some on 7-point response formats, and anchors for neither of these scales were provided. However, they reported alpha reliabilities of .78 and .80, and a test-retest reliability of .68 across approximately six months, for the averaged, standardised item scores. For the present study, the items were rewritten to make them retrospective and relevant to the police organisation. Furthermore, 7-point response formats were assigned to all but two of the items (see Appendix 4.2 for a full outline of the 34 item, reworked scale). Following Lee et al., item scores were standardised (i.e., z-scores were calculated for each individual's item score) and averaged to provide a composite measure of commitment propensity, with higher scores indicating memories of high commitment propensity prior to entry.

(d) Cynicism. Although Niederhoffer's (1967) police cynicism scale has been used for the majority of studies in this area, it is believed to have questionable reliability and validity (Anson, Mann, & Sherman, 1986; Langworthy, 1987; Regoli, 1976). Regoli, Crank, and Rivera (1990) attempted to overcome the problems with the Niederhoffer scale by constructing a set of items which intentionally tapped four dimensions of police cynicism; cynicism directed at rules and regulations, the legal system, police superiors, and significant others (e.g., members of the public). The four subscales, composed of four items each, were validated through factor analysis, and had reported alphas of between 0.65 and 0.86. The authors did not report their response format and scoring technique. For the purposes of the present study, the standard 7-point response format was used and mean scores for each of the four subscales were calculated. Higher scores on these four subscales indicate higher levels of cynicism.

(e) Self Esteem. The Rosenberg Self Esteem Scale (Rosenberg, 1965) measures overall feelings of satisfaction with oneself. It consists of ten items, of which five are reverse scored, each scored on a 4-point response format (1 = Strongly agree to 4 = Strongly disagree). The item scores are averaged to provide an index of self-esteem where higher scores are indicative of lower levels of esteem. The reliability and validity of this scale has been evaluated as acceptable by a number of researchers (Rosenberg, 1965; Zuckerman, 1985).

(f) Tenure-related factors: Investments and job availability. Mowday et al. (1982) have contended that a number of factors related to tenure would influence individual levels of organisational commitment. These factors included investments and availability of employment alternatives. In order to incorporate these factors, the degree to which individuals felt that they had made investments in the organisation was measured using a scale devised by Rusbult and Farrell (1983). This scale consists of three items, measured on 9-point response formats (1 = Nothing to 9 = A great deal), and the scores averaged. A higher score indicates that the respondent feels that he or she would lose significantly by leaving the organisation. The authors reported significant internal

reliability for four samples (i.e., alpha coefficients ranging from .75 to .80).

The perceived availability of alternative employment was measured using a single item ("What do you think are your chances of finding comparable or better employment in another organisation?"). Responses were measured on a 7-point scale (1 = not at all good to 7 = extremely good).

(iv) <u>Measures: Role-related Characteristics</u>

(a) <u>Role ambiguity.</u> Rizzo, House, and Lirtzman's (1970) role ambiguity scale measures "the predictability of the outcomes of one's behaviour, and the existence of environmental guidelines to provide knowledge that one is behaving appropriately" (Cook et al., 1981, p. 199). It consists of six items with a 7-point response format (1 = very false to 7 = very true). The item scores are averaged to provide an index of ambiguity where lower scores indicate high levels of ambiguity. To make interpretation of analyses involving this scale somewhat easier, the scale score is then reversed so that higher scores indicate high levels of ambiguity. Cook et al. (1981) report that the internal and test-retest reliabilities of the scale have been confirmed as acceptable across a number of studies. In their meta-analysis, Mathieu and Zajac (1990) reported a mean reliability for the scale of .80 across 18 studies.

(b) <u>Role conflict.</u> Rizzo et al.'s (1970) role conflict scale measures "the incompatibility of demands; ... in the form of conflict between organizational demands and one's own values, problems of personal resource allocation, conflict between obligations to several other people, and conflict between excessively numerous or difficult tasks" (Cook et al., 1981, p. 199). By this definition, Rizzo et al. include role overload (the last feature, and one which is included separately in Mathieu & Zajac's, 1990, meta-analysis) in role conflict. It consists of eight items, and the scores are averaged to provide an index of conflict in which higher scores indicate high levels of conflict. Cook et al. (1981) report that the internal and test-retest reliability of the scale have been demonstrated to be acceptable across a number of studies. Mathieu and Zajac reported a mean reliability for the scale of .77 across 20 studies.

(v) **Measures: Formal Organisational ~~Characteristics~~ Climate**

(a) Communication. Communication was measured using two scales; Quality of Communication and Information Exchange. These scales were designed by a consulting committee for an internal survey of the Victorian (Australia) police department (Middleton, 1992). The original study did not calculate scaled scores but reported percentage of responses agreeing, disagreeing, or doing neither for each item. In view of this, the scales were included in the present study with a view to checking reliability before using scaled scores. However, the scales were designed specifically to assess communication in police organisations and have, therefore, high face validity.

On the first scale, two aspects of the quality of formal communication (e.g., memos, circulars, gazettes, computer mail, etc.) are measured; accuracy and timeliness. The scale consists of nine items, with one item reverse scored, and a 5-point response format (1 = Strongly disagree to 5 = Strongly agree). In the present study, item scores were averaged, and higher scores indicate better opinions of the quality of communication.

Information exchange measured the degree to which information exchange was facilitated by the existing communication systems (i.e., ease of access to senior ranks, timetabling of formal meetings and access to and reliability of "normal channels" of communication). It consists of six items, with a 5-point response scale, and two items reverse-scored. In the present study, item scores were averaged, and higher scores indicate perceptions that the formal communication channels and processes are satisfactory.

(b) Participation in Decision Making. This scale (Meyer & Allen, 1988) measures the degree to which an employee feels empowered by the organisation to make decisions regarding work load and performance. It consists of two items, one of which is reverse scored, and the two items are averaged to provide a scale score. A higher score on this scale indicates a more positive perception of the decision-making processes in the

organisation. Meyer and Allen (1988) reported a coefficient alpha of 0.59 for this scale, and found that it correlated significantly with the OCQ ($r = 0.46$).

(c) Perceived Organisational Support. Based on the premise that employees who feel that the organisation is committed to them will be more committed to the organisation, Eisenberger et al. (1986) designed a scale to measure the degree to which employees feel that the organisation values their contribution and cares about their well-being. It consists of 16 items, of which 7 are reverse scored, and the scores are averaged to provide an index of perceived organisational support. Higher scores on this scale indicate that the employee feels well supported by the organisation. The authors reported a Cronbach's alpha of 0.93.

(d) Promotion. Consistent with Schwarzwald et al. (1992), single item measures of two different aspects of promotion were collected. Respondents were asked to indicate the length of time since their last promotion and whether they expected to be promoted in the next 12 months.

(vi) Measures: Informal Organisational ~~Characteristics~~ Climate

(a) Peer cohesion. This scale (Meyer & Allen, 1988) measures the extent to which co-workers within the local work group have close friendships. It consists of two items, one of which is reverse scored, and the two items are averaged to provide a scaled score. A higher score on this scale indicates stronger cohesiveness in the peer group. Meyer and Allen (1988) reported a coefficient alpha of 0.77 for this scale, and found that it correlated significantly with the OCQ ($r = 0.36$).

(b) Commitment norms. This scale (Meyer & Allen, 1988) measures the perception that there is an expectation within the organisation that employees will be committed to the organisation. It consists of two items, one of which is reverse scored, and the two items are averaged to provide a scaled score. A higher score on this scale indicates a perception that employees are expected to be committed to the organisation. Meyer and Allen (1988) reported a coefficient alpha of 0.69 for this scale, and found that it correlated significantly with the OCQ ($r = 0.31$).

(c) Social involvement. This scale (Sheldon, 1971) measures the degree to which relationships with fellow employees are important to nonwork life. Sheldon used this measure as an index of investment, where an employee would lose nonwork social life if he or she were to leave the organisation. This scale uses an "endorsement / nonendorsement" scoring method for its three items. For example, in response to the question "How frequently do you have off-the-job contacts with your work colleagues?", "frequently" and "occasionally" counted as endorsement, and "rarely" or "never" as nonendorsement. Respondents who endorsed two or three items were labelled "high social involvement", whereas those who endorsed one or none were considered to have low social involvement. Sheldon reported a coefficient of reliability of 0.95.

(vii) Measures: Met-expectations

Measures of expectations generally include expectations about both formal and informal aspects of the organisation (e.g., they may include expectations about job characteristics, role characteristics, and social climate). Therefore, in the current study, this measure was distinguished from more "pure" measures of formal and informal organisational variables. Two scales were used to operationalise met-expectations.

(a) Confirmed expectations. This scale (Meyer & Allen, 1988) measures expectations globally. It includes two items asking about respondents' general feelings regarding expectations for life and work within the organisation. A higher mean score from the two items (one of which is reversed scored) indicates that expectations have been met by the reality of organisational life. Meyer and Allen (1988) reported Cronbach's alphas of .71, .82 and .68, and test-retest correlations of .63 and .56 after five and ten months respectively.

(b) Met-expectations. This scale (Rosin & Korabik, 1991) measures specific rather than global met-expectations. Respondents are asked to indicate the extent to which their expectations in 12 areas (i.e., salary, career advancement, opportunities to develop skills, status, influence in the organisation, stress, hours required, quality of supervision, compatibility of colleagues, type of work required, physical conditions, and benefits and

perks) have not been met (score = 1), been met (score = 2), or been exceeded (score = 3). The item scores can be averaged to provide a general score of met-expectations, where a score closer to 3 reflects a perception that expectations, overall, have been exceeded. In a study of managers, the authors reported an alpha of 0.68.

(viii) <u>Results and Discussion</u>

(a) <u>Reliability and validity of the work measures.</u> To ensure that the scales measured single dimensions, principal components factor analyses (with varimax rotations) were conducted on the ten measures with more than two items, using the entire data set (i.e., combined responses from the two samples). Factors with eigenvalues greater than one were selected as the solution. The factor scores are given in Appendix 4.3.

Of the ten scales, two (investment and social involvement) were found to be unidimensional as predicted. Furthermore, although some of the items loaded onto more than one factor, the analysis of the 16 cynicism items indicated four factors as expected (i.e., cynicism about; rules and regulations, senior officers, legal system, and citizens). These factors accounted for a total of 57.0% of the common variance, and the subscales were used in the analyses.

The analysis for Protestant Work ethic produced a five factor solution. The major factor accounted for 18.9% of the common variance, and the remaining four factors each accounted for between 5.3 and 8.6%. The manner in which the items load onto the factors, while not entirely clear, could be interpreted as equating to (a) a general work ethic factor (8 items), (b) a "hard work equals success" factor (4 items), (c) "a job well-done equals satisfaction" factor (3 items), (d) an "anti-hard work is a weakness" factor (2 items), and (e) a "more leisure time" factor (2 items). Since each of these factors correspond to characteristics of the Protestant Work ethic, the scale was assumed to provide a composite score of a single, albeit multi-dimensional, personality trait.

The items measuring retrospective commitment propensity loaded onto ten factors. These factors represented personal characteristics (desire for a career in the

organisation, familiarity with the organisation, self-efficacy, and self-confidence), expectations (understanding of the academy and the organisation), and organisational choice factors (volition of choice and sacrifice in choice). These subscales measured the characteristics that were supposed to underly commitment propensity. By definition, commitment propensity is a composite scale, therefore, it was used as such in the analyses.

Consistent with Eisenberger et al.'s (1986) factor analysis, the items for the perceived organisational support measure loaded onto two factors. Also consistent with the original findings, the analysis indicated a high degree of cross-loading of items. The primary factor accounted for 47.5% of the common variance, compared to just 6.7% for the second factor. Given the consistency with Eisenberger et al., the scale was taken to be a reasonable measure of perceived organisational support.

In a similar manner, the items that formed the communication (quality) measure displayed a high degree of cross-loading onto two factors, with the first factor accounting for 39.0%, and the second factor accounted for 14.6% of the variance. The two factors equated roughly to (a) quality of the information contained in the communications and (b) quality of the actual publications.

Two factors were also indicated in the information exchange items of the communication measure. The three items that loaded onto the primary factor (accounting for 32.8%) were all related to channel of communication. The three items that loaded onto the second factor (accounting for 24.2%) all asked about the relevance of formal meetings held for officers at the respondents' level (i.e., rank). There are obviously two distinct dimensions to the information exchange measure, but each relates to the concept of communication effectiveness.

The 12 items of the met-expectations measure loaded onto four factors. These factors were linked to four distinct aspects of the participants' work experiences: (a) career development (4 items), (b) conditions of employment (3 items), (c) work conditions and environment (3 items), and (d) work / peer group (2 items). The four factors

accounted for 51.4% of the common variance (between 20.9 and 8.5% each). Given that each of these factors related to experience of different aspects of the organisation within the theoretical framework, this measure was divided into the four subscales for the analyses.

The means, standard deviations, and Cronbach's alphas for, as well as intercorrelations between, each of the resultant measures are reported in Table 4.2. The Cronbach's alphas indicate that the multi-item measures have moderate to high internal reliability, with the exception of Participation in decision making, Commitment norm and Met-expectations about the work group. It could be argued that the results of the factor analyses, in combination with some of the lower reliability scores, suggest that some of the measures should perhaps be further refined (e.g., some items excluded or some measures divided into more than one scale). However, the benefit of obtaining data that can be directly compared with the results of other studies advocated against changing the measures to suit the present data set. Based on the results of the factor and reliability analyses, the measures were judged adequate for the purpose of the study, but caution is required (as in any study using multiple self-report, questionnaire measures) in the interpretation of the results.

(b) Reliability and validity of the Organisational Commitment Questionnaire. Examination of the central measure of the study -- organisational commitment -- indicated high reliability and a factor structure consistent with theories distinguishing an underlying general factor; "affective commitment" (cf. Cohen, 1996, and Dunham et al., 1994). Although the solution produced three factors with eigenvalues greater than one (Table 4.3), there was a high degree of cross-loading of the OCQ items onto the factors. Furthermore, 12 of the 15 items had factor loadings of greater than .30 on the first factor. The first factor accounted for 36.6% of the common variance whereas the second and third factors accounted for only 7.9% and 7.0% respectively. Examination of the items which had the highest loadings on each of the factors did not suggest interpretable distinctions between the factors.

Table 4.2
Means and Intercorrelations[a] in Survey 1, Australia and New Zealand Combined (n = 1038).

	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1. **Organisational commitment**	4.67 (1.01)	**.86**	.12	-.18	-.24	-.03	-.15	.21	-.40	-.49	-.04	-.18	.22	.11	.40	.30	.33	.59	.22	.19	-.23	.56	.47	.31	.10	.24
2. Understanding organisational goals	3.57 (1.11)		.na	.17	.15	.01	.03	.02	-.13	-.12	-.10	-.08	.15	.16	.17	.16	.13	.18	.09	.10	-.09	.15	.11	.03	.01	.02
Personal Characteristics																										
3. Age (Years)	30.59 (6.36)			.na	.79	-.04	.28	-.07	.07	.09	-.10	-.08	.13	-.07	-.14	.10	.02	-.07	-.12	.07	.11	-.11	-.10	-.11	-.09	-.15
4. Tenure (Years)	8.09 (5.79)				.na	.06	.33	-.04	.09	.16	-.10	-.03	.16	-.11	-.22	.06	.03	-.14	-.12	.02	.09	-.14	-.17	-.14	-.12	-.17
5. Time in training (Years)	0.52 (0.82)					.na	-.05	.00	.03	.03	.01	.05	.02	-.03	-.02	.01	.01	-.00	-.00	.01	.01	.01	.03	-.00	-.02	.00
6. Positional tenure (Years)	2.25 (2.49)						.na	.02	.05	.11	-.00	.06	.05	.02	-.11	.03	-.02	-.07	-.09	-.04	.04	-.09	-.12	-.07	.01	-.05
7. Protestant Work ethic	4.39 (0.59)							**.72**	.00	.04	.19	.14	.12	.16	.11	.03	.03	.08	.10	.06	-.11	.11	.03	.05	.01	.05
8. Cynicism: Rules and regulations	3.54 (1.23)								**.75**	.54	.17	.35	-.05	-.06	-.46	-.34	-.33	-.45	-.14	-.17	.18	-.36	-.33	-.21	-.11	-.25
9. Senior officers	4.83 (1.36)									**.70**	.28	.39	.02	-.00	-.38	-.39	-.45	-.67	-.13	-.10	.08	-.43	-.44	-.26	-.12	-.23
10. Legal system	5.24 (1.19)										**.62**	.42	.03	.04	-.07	-.11	-.15	-.16	.13	.08	-.05	-.08	-.13	-.11	-.05	.02
11. Citizens	5.12 (1.20)											**.74**	.05	.08	-.21	-.20	-.26	-.31	.01	-.03	.02	-.19	-.26	-.20	-.05	-.07
12. Investments	6.56 (1.14)												**.56**	.19	.00	.06	.06	.03	.21	.13	-.23	.08	.04	-.03	-.15	.09
13. Commitment Propensity	0.00 (0.34)													**.48**	.11	.06	-.01	.02	.12	.06	-.13	.12	-.00	-.06	.08	.05
Formal Organisational ~~Characteristics~~ Climate																										
14. Communication: Quality	3.12 (0.64)														**.79**	.30	.27	.48	.06	.13	-.06	.33	.36	.27	.12	.22
15. Info exchange	3.16 (0.65)															**.58**	.31	.44	.15	.16	-.11	.24	.33	.14	.02	.19
16. Participation in decision-making	3.30 (1.38)																**.38**	.47	.13	.05	-.11	.32	.36	.19	.04	.15
17. Perceived organisational support	3.50 (1.04)																	**.92**	.21	.18	-.13	.47	.49	.32	.13	.27
Informal Organisational ~~Characteristics~~ Climate																										
18. Peer cohesion	4.96 (1.49)																		**.46**	.09	-.38	.18	.15	.09	-.03	.29
19. Commitment norm	5.18 (1.07)																			**.29**	-.11	.08	.12	.03	-.03	.09
20. Social involvement	1.72 (0.45)																				**.81**	-.17	-.11	-.05	.05	-.25
Met-expectations																										
21. Confirmed expectations	3.82 (1.37)																					**.62**	.40	.22	.13	.24
22. Specific: Career development	1.73 (0.38)																						**.45**	.36	-.03	.22
23. Employment conditions	1.71 (0.36)																							**.44**	.01	.18
24. Working conditions	1.73 (0.40)																								**.44**	-.03
25. Work group	1.90 (0.44)																									**.31**

[a] For r > .07, p < .01; for r > 10, p < .001. Internal consistency, as measured by Cronbach's alpha, are reported on the first diagonal. Note. na = not applicable

Table 4.3.

Factor Loadings for Principal Components Factor Analyses of the OCQ.

Item	Factor loadings		
1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.	.55	.21	-.00
2. I talk up this organisation to my friends as a great organisation to work for.	.67	.28	.17
3. I feel very little loyalty to the this organisation.	.42	-.18	.51
4. I would accept almost any type of job assignment in order to keep working for this organisation.	.25	.64	-.14
5. I find that my values and the organisation's values are very similar.	.43	.52	-.08
6. I am proud to tell others that I am part of this organisation.	.70	.25	.15
7. I could just as well be working for a different organisation as long as the type of work was similar.	-.03	.02	.74
8. This organisation really inspires the very best in me in the way of job performance.	.57	.44	.05
9. It would take very little change in my present circumstances to cause me to leave this organisation.	.37	.35	.51
10. I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.	.64	.23	.23
11. There's not too much to be gained by sticking with this organisation indefinitely.	.30	.47	.46
12. Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees.	-.01	.69	.32
13. I really care about the fate of this organisation.	.71	-.04	.02
14. For me this is the best of all possible organisations for which to work.	.62	.40	.24
15. Deciding to work for this organisation was a definite mistake on my part.	.61	.13	.37

Of some concern were items 7 and 12, which loaded nonsignificantly and negatively onto the primary factor. To some degree these items may reflect the environment within police organisations. Specifically, the absence of a relationship between the primary commitment factor and item 7 ("I could just as well be working for a different organisation as long as the type of work was similar") may reflect the fact that, within Australia and New Zealand, there is no opportunity for police officers to change organisations and continue to do the duties of a law enforcement officer. In other words, the respondents in this sample may recognise that changing organisations is not an option, and is in no way related to their commitment to their present organisation. Similarly, the fact that item 12 ("Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees") does not load onto the primary factor suggests that the respondents do not think that commitment necessarily requires agreement with the organisation's policies. To determine the degree to which exclusion

of these items improved the measurement of commitment, the alpha reliability was calculated if each of the items were deleted. In the Australian sample, the alpha score changed from .87 for the 15-item scale to .88 when item 7 was deleted, and to .86 when item 12 was removed. In the New Zealand sample, the alpha score changed from .83 for the 15-item scale to .84 when each of the items were removed respectively. Finally, to ensure that the inclusion of these two items did not distort the results of the primary analysis (see section (d) below), a 2 (Country) by 10 (Cohort) analysis of variance was conducted using a version of the OCQ that excluded items 7 and 12. The results of this analysis were almost exactly the same as the results of that using the 15-item version, suggesting that inclusion of the two items would not influence the outcomes of the study. Given these results, and Reicher's (1985) suggestion that the measure should be used unchanged to provide comparable data, items 7 and 12 were retained in the scale for the current study.

The internal reliability of the OCQ for the current data set, measured using Cronbach's alpha, was .86. This is consistent with the findings of Mathieu and Zajac (1990). They reported an average internal consistency on the 15-item OCQ across 80 studies (n = 24,258) of .88 (SD = .04). Similarly, Mowday, Porter, and Steers (1974) reported that internal consistency ranged from .82 to .93 across 11 samples from different organisations.

Evidence for the convergent, discriminant and predictive validity of the OCQ has been provided by other researchers (e.g., Bateman & Strasser, 1984; Cohen, 1996; Cook et al., 1981; Dunham et al., 1994; Lee & Johnson, 1991; Mowday et al., 1974), and was beyond the scope of the present study. However, the results of the Cronbach's alpha and factor analyses support the contention that the OCQ is a reliable measure of unidimensional affective organisational commitment.

(c) Response bias and organisational commitment. One major concern when studying organisational commitment is that group means should not be biased by selectivity in questionnaire returns. In other words, when one is measuring commitment

to an organisation, it is possible that results may either underestimate commitment, because surveys are mainly returned by those who want to complain about the organisation, or overestimate commitment, because forms are returned by interested employees who are happy to help the organisation. This issue can be partly addressed by ensuring that the questionnaires are not seen as "owned" by, and coming from, the organisation. Nonetheless, success in addressing this issue remains an empirical question.

Despite the ubiquity of the problem, a search of the literature failed to identify studies addressing the matter. The ideal solution would be to compare the commitment levels of respondents and nonrespondents by following up nonrespondents in some way. As this approach is largely impractical, researchers attempt to determine the random nature of their respondent sample by comparing the respondent and nonrespondent groups on any demographic and personal variables available. In the present study, the only such comparison that could be made was using the rank of the Australian sample. To ensure that there was no effect of tenure (i.e., that uncommitted employees in longer-serving cohorts responded to the chance to complain, whereas committed employees in newer cohorts felt obliged to return the survey), this analysis was conducted by cohort. A series of Chi^2 analyses provided no evidence of differences between respondents and nonrespondents (refer to Appendix 4.4).

An alternative method to examine possible response bias is to compare the demographics of the respondent sample to the characteristics of the population from which they were drawn. This is the most commonly used method in most survey research. In the present study, the samples were randomly selected, not from the organisation as a whole, but from selected subsamples based on the year of recruitment. The appropriate comparison should be made, therefore, with the populations from which each cohort group was drawn. Unfortunately, the demographics of these populations are not available. However, the Australian sample seemed to be a representative sample of the police officers in the whole organisation, albeit skewed toward the less experienced

end (i.e., a higher percentage of constables and a lower percentage of sergeants and commissioned officers) of the organisation (see Table 4.4). The results in Table 4.4 also show that the New Zealand sample was representative, in terms of gender and rank, of the New Zealand Police department.

Table 4.4.

Characteristics of the Respondent Samples and their Respective Organisations.

New South Wales

	Cohort group	No. of respondents (n)	% Return rate (n/120)	No. of female officers	Mean age (and s.d.)	No. of constables (or prob)	No. of senior[a] constables	No. of sergeants	No. of commissioned officers
1	1993	65	54.2	24	24.0 (4.0)	65			
2	1992	60	50.0	20	25.1 (3.8)	60			
3	1991	67	55.8	13	24.8 (3.7)	67			
4	1990	62	51.7	14	25.4 (3.3)	62			
5	1989	74	61.7	18	27.3 (4.3)	73	1		
6	1988	73	60.8	10	28.1 (3.7)	70	3		
7	1987	77	64.2	6	28.8 (3.1)	75	2		
8	1979	78	65.0	7	35.5 (2.9)		58	19	1
9	1978	83	69.2	1	38.2 (4.1)		57	25	1
10	1977	71	59.2	1	38.9 (3.3)		52	19	
Sample total		710	59.2	114 (9.5%)	29.6 (3.6)	472 (66.5%)	173 (24.4%)	63 (8.87%)	2 (.003%)
NSW establishment[b]		12,718	-	1560 (12.3%)		6198 (48.7%)	3476 (27.3%)	2584 (23.3%)	449 (3.5%)
New Zealand			(n/50)						
1	1993	21	42.0	4	27.3 (5.0)	21			
2	1992	37	74.0	4	28.6 (5.4)	37			
3	1991	31	62.0	4	25.3 (2.)	31			
4	1990	25	50.0	3	28.7 (3.4)	25			
5	1989	40	80.0	3	28.7 (3.3)	40			
6	1988	33	66.0	5	29.7 (3.4)	32		1	
7	1987	32	64.0	3	30.5 (3.6)	28		4	
8	1979	40	80.0	3	35.6 (3.1)	8	7	25	
9	1978	36	72.0	3	37.2 (3.8)	2	15	19	
10	1977	33	66.0	4	37.9 (3.8)	5	10	18	
Sample total		328	65.6	35 (7.0%)		221 (67.4%)	32 (9.8%)	67 (20.4%)	
NZ establishment[c]		6,927	-	848 (12.2%)		5052 (72.9%)[d]		1410 (20.4%)	

[a] The NZ sample included 17 officers who gave their rank as "Detective". These are incorporated into the senior constable category.

[b] This information was obtained from the Annual Report of the New South Wales Police Service, 1994/95.

[c] The NZ Annual Report provides overall staff numbers; information about the rank breakdown was obtained from the Planning & Policy Group of the NZ Police.

[d] NZ rank information combined constable and senior constable numbers into one category.

Another way in which the problem could be examined is through meta-analysis of the data from empirical studies that had used the 9- or 15-item (7-point response format) OCQ measure of organisational commitment and that have reported response rates. An exploratory effort was made in the present study to address this issue using this approach. Initially, 25 studies that reported both mean levels of the OCQ and response rates were identified in a literature search. Within this sample, results from studies in which mail-out procedure were used were differentiated from those using face-to-face procedures (e.g., where surveys were given to graduate students during classes). Mean levels of organisational commitment were then mapped against response rates, providing separate functions for both mail and "face-to-face" data. The results, indicating a slight positive trend in the relationship, are shown in Figure 4.1.

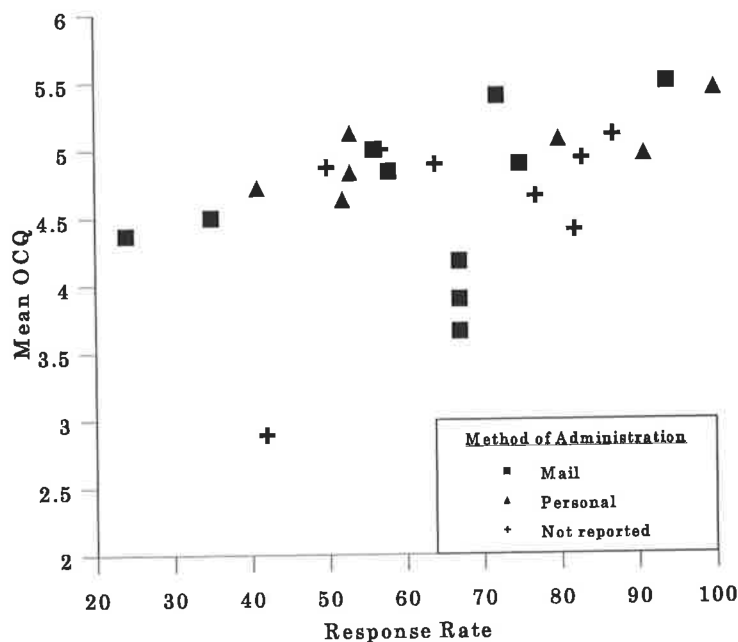


Figure 4.1. Relationship between response rates in 25 studies using the OCQ and mean level of commitment.

This relationship has a Pearson correlation that is approaching significance at the .01 level (r = .48, p = .02; n = 25). In other words, studies reporting higher response rates reported a higher mean level of organisational commitment. For the subset of seven studies using face-to-face (personal) data collection techniques, the Pearson correlation was .75 (p = .054). However, for a subset of ten studies that employed a mail-

out technique, the Pearson correlation was not significant ($r = .34$, $p = .33$). The sample was not large enough to examine the influence of tenure on this relationship. Overall, although the evidence is not strong, these results suggest that response rates to mail-out surveys of organisational commitment are not significantly influenced by commitment levels.

Finally, Viswesvaran, Barrick, and Ones (1993) provided a mathematical formula with which to calculate the average score of nonrespondents that would threaten the results of a study. In other words, these authors wanted to determine whether the absence of the scores of the nonrespondents to a survey significantly distorts the mean result obtained from the people who returned the survey. They utilised a concept similar to that of Rosenthal's "file drawer" theory that is used in meta-analyses to determine the number of null or nonsignificant studies that would need to have been unreported to threaten the conclusions of the analysis (Rosenthal, 1979). The formula incorporates all of the aspects of the respondents (and nonrespondents) that are available to the researcher, and calculates the nonrespondents' scores in the light of respondents' scores and a meaningful cut-off score (e.g., the midpoint of a scale or the average score from another group which can be meaningfully compared to the surveyed sample). The formula to calculate the average response level of the nonrespondents (ARnr) is:

$$ARnr = \frac{TnARs - RnARr}{NRn}$$

where Tn is the number of subjects in the total surveyed sample, ARs is the average score used to infer conclusions, Rn is the number of respondents, ARr is the average response / score of the respondents, and NRn is the number of nonrespondents.

In the present study, the concern was that any significant differences in the mean levels of commitment between the cohorts resulted from selective return of the surveys. Specifically, it was possible that more surveys were returned by individuals who were disgruntled by the organisation and wanted to complain (resulting in lower levels of commitment reported than is really the case) or by individuals who were strongly

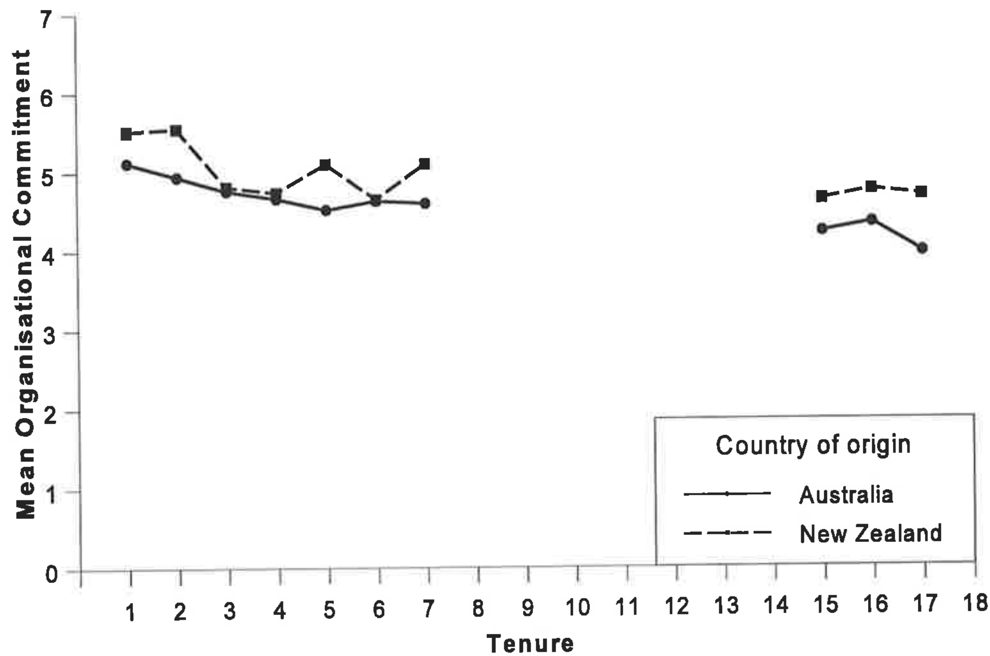
committed to the organisation and who saw the opportunity to complete the survey as a way of assisting the organisation (resulting in higher levels of commitment). Therefore, the value of interest was the level of commitment of nonrespondents within each cohort that would result in a significant change in the cohort's mean level of commitment toward the average for the entire sample (i.e., that would remove any significant differences between cohorts). In other words, for the purposes of the present study, the conclusion inference score (ARs) was assumed to be the average of the trend (i.e., the average of the scores across the ten cohorts).

The calculations for the average response level of the nonrespondents (ARnr) scores are reported in Appendix 4.5. Overall, the results of these analyses suggest that the average scores of the nonrespondents in the least experienced cohort would need to be 3.90 (cf. 5.12, the score of the respondents in this cohort) if the nonrespondents were to significantly decrease the overall cohort score. The difference between these scores is 1.22 points, and this is greater than the standard deviation found in the respondents' scores (i.e., SDr = 0.85). Similarly, for the three most experienced cohorts, the average respondents' scores ($ARr_{cohort\ 8}$ = 4.23; $ARr_{cohort\ 9}$ = 4.21; and $ARr_{cohort\ 10}$ = 3.97) are more than one standard deviation ($SDr_{cohort\ 8}$ = 0.93; $SDr_{cohort\ 9}$ = 1.10; and $SDr_{cohort\ 10}$ = 1.23) lower than the score required from the nonrespondents to significantly change the cohorts' scores ($ARnr_{cohort\ 8}$ = 5.17; $ARnr_{cohort\ 9}$ = 5.35; and $ARnr_{cohort\ 10}$ = 5.41). It could be argued that it is highly unlikely that the nonrespondents (which comprise between 50% and 31% of the sample for each cohort) would provide an average level of response that was more than one standard deviation different from the respondent sample response. In summary, then, applying Viswesvaran et al.'s (1993) formula to the average levels of commitment reported by the respondents from each of the cohorts indicates that the nonrespondents were unlikely to give responses that significantly changed the overall cohort response. This is, in turn, support for the contention that the commitment levels obtained in the current survey could be generalised to the population of officers from which the responses were drawn.

In summary, given that there was no suggestion of bias within other studies of organisational commitment based on mail-out surveys; that the respondent sample was not different from the nonrespondent sample on rank; and that, to have any influence on the results, the average score of nonrespondents would have to be more than one standard deviation different from those of the respondents, the following analyses were conducted assuming that the commitment data were valid and representative of the level of commitment in the police populations from which the respondents were drawn.

(d) The developmental trend: Cross-sectional data from Australia and New Zealand. Graphical representation of the mean scores for each cohort in each country is shown in Figure 4.2. Examination of this graph suggests that commitment levels decrease with tenure in both samples and that commitment levels in the Australian sample were lower than those in the New Zealand sample. This is supported by the results of the 2 (Country) by 10 (Cohort) analysis of variance (Appendix 4.6). Both the main effect for Cohort ($F_{(9,1038)} = 11.41$, $p < .001$) and the main effect for Country ($F_{(1,1038)} = 37.28$, $p < .001$) were significant. The interaction was not significant.

Post hoc (Scheffe) tests of the main effect for Cohort revealed that cohorts 1, 2, and 3 ($M = 5.22$, $SD = 0.81$; $M = 5.17$, $SD = 0.86$; and $M = 4.78$, $SD = 0.89$, respectively) reported significantly higher organisational commitment levels than cohorts 8, 9, and 10 ($M = 4.37$, $SD = 0.92$; $M = 4.47$, $SD = 1.02$; and $M = 4.20$, $SD = 1.15$, respectively). This result indicates that, independent of country, there is a decline in organisational commitment which occurs between 3 and 15 years of service in police organisations. Furthermore, it supports the correlational findings of Wilson (1991) and Savery et al. (1991), and provides preliminary evidence that there is a developmental trend in organisational commitment within police organisations. Although there is evidence that a developmental trend is present, the results of the cross-sectional data collection are confounded by cohort effects, and do not show intraindividual (tenure) changes. The results therefore require confirmation with a cross-sequential study.



		Cohort									
Country		1	2	3	4	5	6	7	8	9	10
Australia	M	5.12	4.94	4.76	4.66	4.52	4.63	4.60	4.23	4.34	3.97
	SD	0.85	0.88	0.95	1.06	1.00	0.95	0.99	0.93	1.10	1.23
New Zealand	M	5.52	5.55	4.81	4.74	5.10	4.65	5.10	4.64	4.76	4.69
	SD	0.58	0.69	0.74	0.97	0.91	0.91	0.80	0.83	0.76	0.75

Figure 4.2. Cross-sectional trend in the development of organisational commitment.

The main effect for Country revealed that, overall, the mean level of organisational commitment reported by the Australian sample (M = 4.56, SD = 1.05) was significantly lower than the mean for New Zealand (M = 4.93, SD = 0.86). Furthermore, the overall level of organisational commitment reported in the Australian sample is comparable with the levels reported for other samples of Australian police officers by Wilson (1991; M = 4.36, SD = 1.11 and M = 4.48, SD = 1.04) and Savery et al. (1991; M = 4.16, SD = 0.93). There is therefore substantial evidence that, allowing for effects from tenure, Australian police officers have significantly lower levels of organisational commitment than their counterparts in New Zealand. The possibility of a cultural

influence will be examined in the following analyses.[17]

(e) Factors related to individual differences in organisational commitment within the two samples. Although previous studies have reported lower levels of organisational commitment in police organisations in Australia when compared with levels in overseas departments (e.g., Savery et al., 1991; Wilson, 1991), no-one has yet attempted to explain this difference. The data set for the present study contained a number of demographic and work-related factors that could be tested to determine whether they accounted for the observed difference between countries in mean levels of commitment. However, it is important to establish first which of the factors are related to levels of organisational commitment within the samples, since differences in factors unrelated to individual commitment levels will not be responsible for differences between the overall commitment levels of the two countries. In other words, prior to making between groups (countries) comparisons, it is necessary to identify the factors responsible for individual differences within groups based on country.

Therefore, exploratory, hierarchical regressions were conducted to identify differences in the way in which the individual variation in organisational commitment was explained within the data set for each country.[18] The results of these regressions (Table 4.5) show that there are no substantial differences in the structure of the regression equations (i.e., in the nature or order of the factors that added significantly to the equations).

---

[17] One could argue that the difference in commitment levels across countries resulted from the difference in survey procedure (i.e., the Australian sample was not anonymous, but the New Zealand sample was). However, in a study of Navy personnel, Fuller (1974) reported that officers who completed surveys on which they could be identified gave more pro-Navy responses than those who completed anonymous surveys. Contrary to this finding, the Australian (i.e., identifiable) sample in the present study gave lower responses than the New Zealand (i.e., anonymous).

[18] Gender, posting (duties) and rank were excluded from this regression. Gender been shown to have no influence on the development of work-related attitudes in police organisations (Pollitz Worden, 1993). To ensure that gender had no influence in the present study, a series of t-tests were conducted within cohorts with significant numbers of women. The single significant difference indicated that, in the 1989 cohort, women reported lower levels of commitment than their male counterparts (see Appendix 4.7). Although it is highly probable that posting and rank are related to organisational commitment, these factors are unique to police. They will not, therefore, assist in an examination of cultural differences, but will be examined in the context of explaining differences in organisational commitment within police organisations.

Table 4.5.

Summary of Stepwise (Exploratory) Regression Analyses for Factors Explaining Organisational Commitment by Country.

Factor	Australia (n = 668) β	R^2_{cha}	New Zealand (n = 291) β	R^2_{cha}
Perceived organisational support	0.30	.353***	0.28	.271***
Confirmed expectations	0.27	.114***	0.34	.082***
Investments	0.18	.024***	0.24	.045***
Tenure	-0.15	.030***	-0.18	.040***
Met-expectations: Career development	0.10	.009***	0.11	.010*
Met-expectations: Employment conditions	0.06	.003*	0.13	.016**
Work ethic	0.12	.013***		
Cynicism: Rules and regulations	-0.11	.012***		
Commitment norm			0.12	.014**
Understanding of goals			-0.11	.011*

Note. $R^2 = .56$ and $R^2_{adj} = .55$ [$F_{(8,659)} = 104.48$, $p < .001$] for the Australian sample; $R^2 = .49$ and $R^2_{adj} = .47$ [$F_{(8,282)} = 33.73$, $p < .001$] for the New Zealand sample.

*$p < .05$, **$p < .01$, ***$p < .001$.

Overall, the factors that were included in the equations accounted for 55.4% and 47.4% of the variation between individuals on organisational commitment within the Australian and New Zealand samples respectively. The factors that accounted for the largest significant proportions of this variance were perceived organisational support (35.3% and 27.1% for Australia and New Zealand respectively), global confirmed expectations (11.4% and 8.2%), degree of investment made (2.4% and 4.5%), and years of service (3.0% and 4.0%). Smaller, but still statistically significant, amounts of the variance were also explained by met-expectations relating to career development (0.9% and 1.0%) and met-expectations relating to conditions of employment (0.3% and 1.6%). Work ethic and cynicism toward rules and regulations accounted for small but statistically significant additional variance (i.e., 1.3% and 1.2% respectively) in the Australian sample. Commitment norm and an understanding of the organisational goals accounted for small but statistically significant additional variance (i.e., 1.4% and 1.1%) in the New Zealand sample.

Based on these regressions, it appears that the factors that influence commitment in Australian police organisations are the same as those that influence commitment in New Zealand. Differences in the absolute levels of these factors may, therefore, account for some of the difference observed in commitment levels. A series of independent t-tests were conducted to identify variables with absolute differences between the two countries (Table 4.6).

Table 4.6.

Means (and Standard Deviations) for Measures in Survey 1 by Country, Differences Between Countries, and Correlations Between Organisational Commitment and Other Measures.

Measure	M_{Aust} (SD)	M_{NZ} (SD)	t	r_{Aust}	r_{NZ}
1. **Organisational commitment**					
2. Understanding of goals	3.61 (1.10)	3.47 (1.13)	1.94	.16**	.05
Personal Characteristics					
3. Age (Years)	30.26 (6.68)	31.32 (5.52)	2.71*	-.21**	-.16*
4. Tenure (Years)	8.12 (5.80)	8.04 (5.78)	0.22	-.25**	-.23**
5. Time in training (Years)	0.54 (0.55)	0.47 (1.22)	1.38	-.02	-.03
6. Positional tenure (Years)	2.49 (2.51)	1.74 (2.36)	4.59**	-.15**	-.05
7. Protestant Work ethic	4.41 (0.61)	4.37 (0.54)	0.97	.23**	.20**
8. Cynicism: Rules and regulations	3.79 (1.23)	3.28 (1.25)	4.67**	-.26**	-.38**
9. Senior officers	5.35 (1.14)	4.49 (1.29)	5.58**	-.30**	-.26**
10. Legal system	5.31 (1.22)	5.37 (1.08)	2.45*	.00	.00
11. Citizens	5.58 (1.01)	4.53 (1.12)	11.38**	-.11*	-.11
12. Investments	6.54 (1.19)	6.58 (1.02)	0.54	.21**	.24**
13. Commitment Propensity	0.04 (0.34)	-.09 (0.33)	6.00**	.18**	.08
Leader (Formal) Organisational Climate					
14. Communication: Quality	3.07 (0.65)	3.23 (0.59)	3.93**	.43**	.30**
15. Information exchange	3.14 (0.65)	3.20 (0.63)	1.46	.30**	.27**
16. Participation in decision-making	3.14 (1.37)	3.63 (1.32)	5.49**	.34**	.23**
17. Perceived organisational support	3.41 (1.07)	3.69 (1.00)	4.21**	.60**	.51**
Work group (Informal) Organisational Climate					
18. Peer cohesion	4.90 (1.49)	5.08 (1.47)	1.84	.22**	.20**
19. Commitment norm	5.13 (1.12)	5.28 (0.95)	2.36	.16**	.24**
20. Social involvement[a]	1.74 (0.44)	1.68 (0.47)	2.01	-.21**	-.25**
Met-expectations					
21. Confirmed expectations	3.73 (1.41)	3.99 (1.29)	2.97*	.58**	.48**
22. Specific: Career development	1.67 (0.38)	1.85 (0.35)	7.27**	.50**	.30**
23. Employment conditions	1.67 (0.36)	1.79 (0.33)	5.10**	.32**	.21**
24. Working conditions	1.76 (0.40)	1.68 (0.39)	3.45**	.13**	.09
25. Work group	1.88 (0.45)	1.94 (0.41)	2.06	.23**	.26**

[a] Factor is reverse scored.
*p < .01, **p < .001.

The results of these t-tests indicate that, of the six factors common to the two commitment regressions, significant differences were evidenced between the two countries for four of them. Specifically, the Australians recorded lower levels of perceived organisational support, global confirmed expectations, and met-expectations relating to both career development opportunities and employment conditions (e.g., pay and physical conditions). Overall, the difference in commitment found between the two countries may be at least partially explained by the differences in levels of these factors. There are two possible views about why these factors are differentially influential in the two countries. First, there may be fundamental differences between the police organisations in New Zealand and Australia, where employees develop different perceptions about the organisation because of structural or functional differences within the organisations. On the other hand, there may be fundamental differences in the way in which New Zealand employees in general react to their employing organisations, when compared with the way in which Australian employees react. In other words, the differences may be a function of differences in the cultural perspective of work or employers between the two countries. The latter explanation finds some support within the research of Randall (1993).

Randall (1993) introduced Hofstede's Value Survey model and theory in an effort to explain differences in commitment levels reported in studies from around the world. She argued that higher commitment levels would be found in countries that were, by Hofstede's reckoning, characterised by collectivism (i.e., culture where individual loyalty is to the group rather than to self), lower power distances (i.e., a belief that there is equality with managers and decentralisation of decision-making), feminine concerns (i.e., having nurturance rather than assertive interests, characterised by supervisors concerned about individuals rather than with maintaining control), and high levels of uncertainty avoidance (i.e., where individuals prefer certainty and view loyalty to the organisation as valuable).

Randall (1993) conducted a review of empirical studies of organisational commitment from different countries. She compared the mean levels of commitment reported in these studies with Hofstede's results on the Value Survey model (Hofstede, 1980; 1983). Her comparisons suggested that Australia has higher levels of individualism and greater power distances than New Zealand. (On the other two dimensions, the two countries are comparable.) On this basis, it could be expected that Australians would be more likely to be interested in personal reward and equity and more likely to believe that there is inequality in decision-making than their New Zealand counterparts. Their commitment levels should, therefore, be lower. The results of the t-tests are consistent with Hofestede's analysis of the cultures. Furthermore, the New Zealand sample reported higher (albeit not significantly) levels of peer cohesion, commitment norms and social involvement (cf. Hofstede's collectivism), as well as indicating a greater tendency to see the organisation as valuing their contribution, providing better quality communication publications and procedures, and giving them more opportunity to participate in decision-making (cf. Hofstede's power distance). In view of this, it is not unreasonable to concur with Randall's theory that low levels of commitment within the Australian sample may be a result of the way in which people in Australia "perceive and interpret their world" (Randall, 1993, p. 92).

(f) Factors associated with the decline in organisational commitment within police organisations. Although some aspects of culture may explain the low levels of commitment in Australia, the cross-sectional results (Figure 4.2) indicate that there is a decline in commitment with tenure in police organisations independent of country of origin. As previously stated, this is contrary to the general trend of organisational commitment through time and inconsistent with theories of commitment development. The results of the regressions shown in Table 4.5 indicate that approximately half (55% for Australia and 47% for New Zealand) of the variation between individuals within the samples is explained by a number of the factors included in the study. One of these, as expected given the significant trend in the cross-sectional commitment data (Figure 4.2)

and significant negative correlation (r = -.24, Table 4.2), is tenure. Tenure is also correlated significantly with 17 of the 23 other factors included in Survey 1 (see Table 4.2). To determine the effect of tenure on the relationships between commitment and the other explanatory factors, a hierarchical regression was computed where tenure was entered on the first step, followed by all of the other factors (stepwise) on the second step. In addition to the personal and work-related characteristics included in the previous regressions, this regression included the factors posting (duties) and rank, in the form of dummy variables.[19] The results of this analysis are shown in Table 4.7.

Table 4.7.
Summary of Hierarchical Regression Analysis for Factors Explaining Organisational Commitment (n = 959).

Factor	β	R^2_{cha}
Step 1		
Tenure	-0.15	.067***
Step 2		
Perceived organisational support	0.28	.303***
Confirmed expectations	0.28	.098***
Investments	0.18	.039***
Met-expectations: Career development	0.12	.016***
Protestant Work ethic	0.11	.011***
Cynicism: Rules and regulations	-0.09	.007***
Met-expectations: Employment conditions	0.08	.005**
Commitment norm	0.06	.004**
Posting (Task force / Special Squad)	-0.05	.002*
R^2 = .551, R^2_{adj} = .546, $F_{(10,948)}$ = 116.55, p < .001		

*p < .05; **p < .01, ***p < .001.

[19] Posting included seven categories: patrol / general duties, detective / criminal investigation, task force / special squad, physical specialists [e.g., rescue, water police, airwing, canine squad], community policing, administration [including policy research and internal investigation], and specialists [e.g., training, technical services, and prosecution]. Six dummy variables were composed for the regression.

Rank included six categories: probationary constable, constable, constable first class, senior constable, sergeant / senior sergeant, and commissioned officers. For the NZ sample, detectives were incorporated into the senior constable category. Five dummy variables were composed for the regression. The frequencies for each of the categories in these two factors are given in Appendix 4.8.

Essentially, the results of this regression support the results obtained in the individual regressions for each country (Table 4.5). It can be seen that even after the influence of tenure is removed, the same factors enter the regression and account for a substantial amount of the variance in commitment levels in the sample (i.e., 48.3%). It is interesting to note that this subset of factors includes at least one factor from both the formal and informal aspects of the organisation, as well as several personal characteristics and three met-expectation measures. By far the greatest proportion of the explained variance (30.3%) is attributed to perceived organisational support, with officers who feel that the organisation values them reporting higher levels of commitment. This is the only measure in the formal organisational climate category that entered the regression. Met-expectations, both in regard to the organisation overall and to career development opportunities and employment conditions specifically, also explained a significant amount of the variance in commitment levels (i.e., 11.8% in sum). This suggests that higher levels of commitment will be evidenced in officers who feel that their experiences with the organisation have fulfilled or exceeded their expectations. This is especially true in areas concerned with the development, utilisation and recognition of skills, and salary and general conditions of employment. The only measure from the informal climate category that had a significant impact in the regression was commitment norm, indicating that officers reported higher levels of commitment if they felt that there was a general expectation among their work colleagues that individuals would be committed to the organisation.

Another point of interest in these results is that, after the influence of tenure is removed, the dummy variable for task force duties (posting) enters the equation. The negative sign on the β weight indicates that officers posted to task forces or special squads are not as committed to the organisation as officers posted to other duties (i.e., patrol, criminal investigation, physical specialists, community policing, administration, and other specialists). Although the reason for this finding is not clear, there are two possible explanations. First, it is possible that the task force officers are trading

commitment to the organisation for commitment to the task force squad (i.e., in the competing commitments, the organisation is losing out to the local work group). Alternatively, the difference may lie in the nature of task forces, which are teams of officers set up in response to, and for the purpose of solving, a specific crime or problem. Being selected for a special assignment will raise all types of expectations about the potential for using one's skills and knowledge, the amount of recognition and support that will be forthcoming from the organisation, and the possibility that the assignment will enhance future promotional opportunities. If these expectations are not fulfilled, the officer will feel let down by the organisation and will become less committed to the organisation.

The data collected in the present study did not allow an examination of the competing commitments explanation. However, it was possible to test the second theory, using a series of t-tests comparing the levels of all of the factors reported by task force and non-task force officers. Differences in the means were found only for age (task force members are older than other officers; $\underline{M} = 34.06$, $\underline{SD} = 5.63$, cf. $\underline{M} = 30.26$, $\underline{SD} = 6.27$; $\underline{t} = 3.58$, $\underline{p} < .001$), investments (task force members reported higher levels of investment; $\underline{M} = 7.08$, $\underline{SD} = 0.15$, cf. $\underline{M} = 6.54$, $\underline{SD} = 1.14$; $\underline{t} = 2.75$, $\underline{p} < .001$) and confirmed expectations (task force members reported lower levels of confirmed expectations; $\underline{M} = 3.38$, $\underline{SD} = 1.31$, cf. $\underline{M} = 3.84$, $\underline{SD} = 1.36$; $\underline{t} = 2.00$, $\underline{p} = .05$). This tends to confirm the theory that members selected to these squads have higher expectations (or feel that they have more invested) and, subsequently, feel that the experience is unsatisfactory. In any event, the amount of variance explained by this variable is very small and therefore of limited practical utility.

(g) The development of organisational commitment with age. The difference found in the ages of the task force members and other officers highlights another important issue that needs to be examined: the confounding of age and tenure as developmental indices. As discussed in a previous chapter, developmental theories generally look at behavioural changes associated with increasing age. In the current context, tenure is

designated the appropriate substitute for chronological age, constituting an index of organisational age. The major concern regarding the use of tenure as a developmental index is the possible confounding effect of actual chronological age. In other words, developmental differences would arise from either chronological or organisational age, given the strong correlation between the two (i.e., $r = .79$, $p < .001$). In order to discern the actual contribution from each variable, partial correlations between age and organisational commitment, controlling for organisational age (tenure), and organisational age and organisational commitment, controlling for chronological age, were calculated.

The results indicate that the correlation between age and organisational commitment is nonsignificant when the effect of tenure is controlled for (i.e., from $r = -.17$, $p < .001$, to $r = .05$, $p = .06$), whereas the correlation between tenure and organisational commitment, with the effects of age controlled for, remains significant (i.e., from $r = -.26$, $p < .001$, to $r = -.21$, $p < .001$). This indicates that the relationship between age and organisational commitment was due to the extent of covariation between age and tenure, rather than to age itself. This result is consistent with the finding of Cohen (1991), who found that tenure was a marker for organisational experiences, as opposed to age which as an index of experience was influenced by life-events effecting family and social life. The result of this analysis adds empirical support to Cohen's argument, suggesting that tenure is the most appropriate developmental index in studies of work-related attitudes.

(ix) Summary of Results and Conclusions

The results of Survey 1 were used first to examine the validity of the OCQ as an unbiased, unidimensional measure of global organisational commitment, and the use of tenure (organisational age) as the appropriate index of development in studies of work-related attitudes. Although theoretical arguments had been made to justify this approach, the results of the initial cross-sectional study provides additional empirical support for both.

The primary aim of Survey 1 was to explore a possible developmental component to organisational commitment in Australian police officers. The cross-sectional data suggest that there is a developmental trend, with commitment decreasing rapidly over the first two to three years of tenure and then continuing to decrease, although at a slower rate, up to 15 years later. A comparable trend was found in samples of police officers from New Zealand (despite a higher level of commitment overall when compared with the Australian police), suggesting that the developmental trend is not a uniquely Australian phenomenon. As stated, this evidence was preliminary and may have been subject to confounding by cohort effects. There was support, therefore, for continuing with the collection of additional, cross-sequential data. These data, collected in 1995 (Survey 2) and 1996 (Survey 3), are reported in the next section of this chapter.

In addition to collecting developmental data, Survey 1 was used to establish the relationships between organisational commitment and some of its theoretical antecedents. The results of exploratory regressions suggest that some of these factors are related to organisational commitment in police organisations. Furthermore, the factors shown to relate to organisational commitment were essentially the same across countries (i.e., in Australia and New Zealand), with higher mean levels on some of the factors among the New Zealand sample providing a possible explanation for the higher levels of commitment within this group. This result suggests that the factors responsible for the development of commitment are similar across cultures. However, causality cannot be inferred using cross-sectional data. Although causality can only be proven through experimental designs, longitudinal data may be subject to several statistical analyses that allow inferences to be made about the direction, and thus the causal nature, of the relationships. Therefore, Surveys 2 and 3 were also used to collect further information about the related factors, with a view to providing additional information about relationships between commitment and its hypothetical antecedents.

Finally, it is important to point out that the developmental trend highlighted in Survey 1 was not consistent with current models concerned with the development of

affective organisational commitment. The developmental result indicated a continuing decrease in commitment across 15 years of police experience regardless of country, whereas other developmental results have postulated an initial decrease followed by a longer term increase. This suggests that something unique to the police organisation or role may be responsible for the result. Apart from Protestant Work ethic, the factors that were related to individual levels of organisational commitment were all characterised by personal experiences of various features of the organisation (e.g., perception of organisational support, experiences of different aspects of the organisation that did or did not confirm expectations, cynicism about senior management and departmental rules and regulations, and perceived investments made by the individual into the organisation).

Within police organisations, there are two types of employees; police officers and nonsworn (i.e., public servant) members. It is possible that these groups of employees have different experiences of the organisation. If these employees do have different experiences, and these experiences impact on organisational commitment in a manner different to those of the police officers, the nonsworn employees may report a different developmental trend for organisational commitment. In view of this, it may be important to distinguish whether the trend was related to the specific experiences of police officers or to general experiences associated with working for the police organisation (i.e., to determine whether the trend was specific to police officers or a function of the police organisation so that both police officers and nonsworn members report the same influences on the development of their commitment levels with a comparable function mapping development). A study comparing sworn with nonsworn employees is described in Chapter 7.

Prior to this, the data and results obtained for the cross-sequential study of police officers in New South Wales will be reported.

3. Surveys 2 and 3: Cross-sequential Evidence for a Developmental Trend in the Organisational Commitment of Police Officers in Australia

(i) Method

(a) Participants and procedure. The sample for Surveys 2 and 3 comprised the Australian respondents to Survey 1 (n = 739).[20] Following the same procedure as Survey 1 (i.e., initial mail-out, reminder letter and mail-out of a second copy of the questionnaire), Survey 2 was administered during January / February 1995 and Survey 3 during January / February 1996. Response rates were 78% (n = 576) of the respondents to the 1994 survey and 77% (n = 566) of the respondents to the 1994 sample respectively. Of the Survey 1 respondents, a further 9 (1.2%) and 23 (3.1%) resigned prior to the 1995 and 1996 collections respectively. Once again the officers who had rejoined the organisation were excluded from the analysis. This left a total sample of 558 for 1995 and of 539 for 1996. Of these officers, 479 provided responses to all three surveys. This represents 40% of the original sample (n = 1,200), and 68% of the Survey 1 respondents (n = 710).

(ii) Measures

The questionnaires for Surveys 2 and 3 were compiled in a similar manner to that for Survey 1. Included in the surveys were the OCQ and measures of the factors shown in Survey 1 to be related to commitment. (Measures that did not relate to commitment were excluded, on the basis that they were unlikely to show relationships at a different time of measurement, and therefore would serve little purpose if included.) Other factors, particularly role characteristics and self esteem (which had been excluded from Survey 1 to reduce the length of the survey) were included in these later questionnaires. A list of the measures included in all three surveys is shown in Table 4.8.

---

[20] To maintain up-to-date address records for participants, the Survey 1 respondents were sent address up-date notes in addition to a thank you letter. They were asked to send the reply-paid note to the author if they were transferred over the intervening 12 months. In addition, copies of the transfer lists published in Police Service Weekly (the NSW personnel bulletin) were examined for participants' names. Less than 4% (n = 28) of the total were returned "not known at this address", during administration of Surveys 2 and 3.

Table 4.8.

Measures Included in Each of the Surveys.

Measure	Survey 1	Survey 2	Survey 3
1. **Organisational commitment**	✓	✓	✓
2. Understanding of organisational goals	✓	✓	✓
Personal Characteristics			
3. Age	✓		
4. Gender	✓		
5. Tenure (Organisational)	✓		
6. Time in training	✓		
7. Rank	✓		
8. Posting (Duties)	✓		
9. Positional tenure	✓		
10. Protestant Work ethic	✓		
11. Commitment propensity	✓		
12. Cynicism: Rules and regulations	✓	✓	✓
13. Senior officers	✓	✓	✓
14. Legal system	✓	✓	✓
15. Citizens	✓	✓	✓
16. Self esteem		✓	✓
17. Investments	✓	✓	✓
18. Job availability		✓	
19. Tertiary qualifications		✓	
Formal Organisational ~~Characteristics~~ Climate			
20. Communication: Quality	✓	✓	✓
21. Information exchange	✓	✓	✓
22. Participation in decision-making	✓		
23. Perceived organisational support	✓	✓	✓
24. Promoted in last 12 months		✓	✓
25. Promotion expectations		✓	
Informal Organisational ~~Characteristics~~ Climate			
26. Peer cohesion	✓		
27. Commitment norms (General)	✓		
28. Social involvement	✓		
29. Norms: Self			✓
30. Peers			✓
31. Supervisor			✓
32. Senior officers			✓
Role Characteristics			
33. Role ambiguity		✓	✓
34. Role conflict		✓	✓
Met-expectations			
35. Confirmed expectations	✓	✓	✓
36. Specific: Career development	✓		
37. Employment conditions	✓		
38. Working conditions	✓		
39. Work group	✓		

(iii) Results and Discussion

(a) Reliability of Survey 2 and 3 measures. Principal component factor analyses (varimax rotations) were conducted using the items for each of the scales used in data collections in 1995 and 1996 (Appendix 4.9). Unidimensional solutions were found for the four cynicism scales, investments and role ambiguity in each of the two surveys. The solutions for communication (quality and information exchange) and for perceived

organisational support were the same as the solutions reported for the Survey 1 data. These analyses confirm a stable factor structure for each of these measures across time.

Comparisons between Surveys 2 and 3, showed that the solutions for both self esteem and role conflict were identical. For self esteem, two factors were found, with a moderate degree of cross-loading (i.e., 8 of the 10 items loaded onto the primary factor [accounting for 47.8 and 49.9% of the common variance in Survey 2 and 3 respectively] and 7 of the 10 items loaded onto the secondary factor [accounting for 13.0 and 13.5% of the common variance], with loadings greater than .30). For role conflict, two factors were also found, once again with a high degree of cross-loading (i.e., six of the eight items loaded onto the primary factor [which accounted for 47.2 and 45.9% of the common variance in Survey 2 and 3 respectively] and 3 of the 8 items loaded onto the secondary factor [accounting for 13.1 and 13.4% of the common variance], with loadings greater than .30).

Finally, the analysis for the OCQ found a two-factor solution in the Survey 2 data and a three-factor solution in the Survey 3 data.[21] As with Survey 1, the solution indicated a high degree of cross-loading, but the primary factor (onto which 13 and 11 of the items loaded in the respective data sets) accounted for the majority of the common variance. The similarity of the factor structures for these measures with the results obtained with the Survey 1 data, supports the legitimacy of using these measures to analyse changes with time.

Means and intercorrelations for all of the measures are shown in Table 4.9.a (Survey 2, 1995) and Table 4.9.b (Survey 3, 1996). The Cronbach's alphas reported in this table suggest that the internal consistency for each of the multi-item measures was acceptable. In general, the test-retest reliabilities for the measures collected more than once for this study appeared to be reasonable, given that the interval between testing was 12 months (Table 4.10).

---

[21] In Survey 2, the primary factor accounted for 42.3% of the common variance and the secondary factor accounted for 7.4%. In Survey 3, the primary factor accounted for 42.8% of the common variance, the secondary and tertiary factors accounted for 8.0 and 6.7%.

Table 4.9.a.

Means and Intercorrelations[a] of the Measures in Survey 2 (n = 558).

	M	(SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. **Organisational commitment**	4.26	(1.10)	**.89**	.24	-.41	-.48	-.11	-.21	.23	-.23	.02	.41	.37	.63	-.45	-.40	.57
2. Understanding organisational goals	3.64	(1.07)		.na	-.17	-.19	-.15	-.11	.16	-.18	.07	.32	.32	.23	-.37	-.14	.17
Personal Characteristics																	
3. Cynicism: Rules and regulations	3.74	(1.25)			**.79**	.57	.26	.39	.00	.23	.04	-.51	-.36	-.47	.50	.49	-.36
4. Senior officers	5.26	(1.16)				**.73**	.38	.45	.01	.12	.04	-.37	-.41	-.65	.33	.17	-.39
5. Legal system	5.21	(1.18)					**.66**	.48	.01	.02	.04	-.10	-.19	-.19	.10	.24	-.12
6. Citizens	5.41	(1.03)						**.69**	.11	.09	.06	-.25	-.15	-.34	.20	.32	-.16
7. Investments	6.76	(1.26)							**.70**	-.08	.03	.02	.13	.03	-.12	.05	.05
8. Self esteem	1.70	(0.48)								**.87**	-.17	-.13	-.17	-.13	.22	.16	-.20
9. Tenure-related: Job availability	4.00	(1.68)									.na	.02	.02	-.05	-.07	.13	.07
Formal Organisational ~~Characteristics~~ Climate																	
10. Communication: Quality	3.29	(0.65)										**.79**	.43	.47	-.51	-.41	.32
11. Information exchange	3.16	(0.69)											**.65**	.44	-.41	-.37	.28
12. Perceived organisational support	3.29	(1.05)												**.92**	-.44	-.51	.43
Role Characteristics																	
13. Role ambiguity	3.01	(0.91)													**.76**	.42	-.36
14. Role conflict	4.47	(1.05)														**.40**	-.31
Met-expectations																	
15. Confirmed expectations	3.83	(1.37)															**.64**

[a] For $r > .08$, $p < .01$; for $r > 14$, $p < .001$. Internal consistency, as measured by Cronbach's alpha, are reported on the first diagonal.

Note. na = not applicable

Table 4.9.b.

Means and Intercorrelations[a] of the Measures in Survey 3 (n = 539).

	M	(SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. **Organisational commitment**	4.04	(1.15)	**.90**	.28	-.45	-.49	-.11	-.23	.28	-.20	.44	.40	.65	.57	.43	.41	.33	-.45	-.37	.58
2. Understanding organisational goals	3.68	(1.08)		.na	-.23	-.20	-.12	-.03	.25	-.12	.23	.23	.25	.27	.17	.21	.11	-.28	-.09	.15
Personal Characteristics																				
3. Cynicism: Rules and regulations	3.79	(1.22)			**.79**	.53	.22	.29	-.01	.17	-.56	-.47	-.52	-.21	-.21	-.22	-.25	.53	.52	-.40
4. Senior officers	5.36	(1.14)				**.73**	.36	.44	-.01	.09	-.45	-.48	-.67	-.22	-.23	-.30	-.31	.34	.52	-.39
5. Legal system	5.31	(1.21)					**.69**	.47	.05	-.03	-.07	-..22	-.24	-.05	-.07	-.10	-.10	.08	.24	-.13
6. Citizens	5.58	(1.02)						**.72**	.11	.05	-.19	-.25	-.36	-.06	-.05	-.14	-.17	.13	.26	-.23
7. Investments	6.83	(1.21)							**.63**	-.08	-.04	.11	.07	.41	.27	.22	.02	.22	-.06	.11
8. Self esteem	1.69	(1.21)								**.88**	-.06	-.10	-.10	-.19	-.14	-.05	-.04	.19	.10	-.19
Formal Organisational ~~Characteristics~~ Climate																				
9. Communication: Quality	2.29	(0.69)									**.81**	.43	.53	.17	.17	.24	.26	-.44	-.41	.29
10. Information exchange	3.14	(0.72)										**.66**	.55	.25	.25	.36	.26	-.38	-.43	.25
11. Perceived organisational support	3.20	(1.02)											**.93**	.33	.31	.38	.43	-.43	-.49	.49
Informal Organisational ~~Characteristics~~ Climate																				
12. Norms: Self	5.33	(1.39)												.na	.62	.50	.21	-.30	-.12	.32
13. Peers	4.69	(1.31)													.na	.58	.26	-.22	-.14	.31
14. Supervisors	4.82	(1.39)														.na	.51	-.23	-.21	.26
15. Senior officers	5.04	(1.40)															.na	-.25	-.22	.26
Role Characteristics																				
16. Role ambiguity	2.99	(0.92)																**.79**	.40	-.37
17. Role conflict	4.49	(1.06)																	**.83**	-.27
Met-expectations																				
18. Confirmed expectations	3.54	(1.45)																		**.72**

[a] For r > .08, p < .01; for r > 14, p < .001. Internal consistency, as measured by Cronbach's alpha, are reported on the first diagonal.

Note. na = not applicable

Table 4.10

Test-retest Reliabilities for Survey Measures.

Measure		$\underline{r}^a$	
	1994/1995	1995/1996	1994/1996
1. **Organisational commitment**	.73	.72	.65
2. Understanding of goals	.44	.49	.40
Personal Characteristics			
3. Cynicism: Rules and regulations	.58	.57	.53
4. Senior officers	.57	.60	.52
5. Legal system	.60	.67	.62
6. Citizens	.61	.62	.57
7. Investments	.59	.57	.50
8. Self esteem		.51	
Formal Organisational ~~Characteristics~~ Climate			
9. Communication: Quality	.63	.59	.55
10. Information exchange	.44	.51	.41
11. Perceived organisational support	.72	.73	.63
Role Characteristics			
12. Role ambiguity		.49	
13. Role conflict		.53	
Met-expectations			
14. Confirmed expectations	.50	.52	.50

[a] All correlations are significant at the $\underline{p} < .001$ level.

As a final assessment of the response bias problem in using the OCQ, the responses to Survey 1 of participants who responded only in 1994 were compared with those of respondents who completed the surveys on more than one occasion and on all three occasions. Analyses of variance for the 20 measures comparing the three groups showed only one significant result; the perception of personal investment in the organisation (refer to Appendix 4.10). Post hoc (Scheffe) tests indicated that participants who responded only in 1994 felt that they had made less of an investment in the organisation ($\underline{M}$ = 6.21, $\underline{SD}$ = 1.28) than those who responded to two ($\underline{M}$ = 6.61, $\underline{SD}$ = 1.11) or all ($\underline{M}$ = 6.59, $\underline{SD}$ = 1.19) of the surveys. No difference was found when comparing the commitment levels of the once-only respondents with those of the multiple-time respondents. Overall, therefore, the results of these tests support the contention that the results of the study were not compromised by a response bias related to any of the factors

included in the surveys (and, in particular, organisational commitment).

(b) Cross-sequential evidence of a developmental trend in organisational commitment. The cross-sectional data sets for Surveys 1, 2 and 3 are shown in Figure 4.3. An analysis of variance examining change in commitment with tenure in 1995 produced a significant effect for tenure ($F_{(9,555)}$ = 2.15, p = .02; refer to Appendix 4.11), but a similar analysis for 1996 found no significant effect ($F_{(9,478)}$ = 0.73, p = .68; refer to Appendix 4.12). In order to distinguish the effects of cohort and time of measurement, an analysis of the developmental model (following Schaie & Baltes, 1975) is necessary.

Four hundred and seventy-nine officers provided organisational commitment data at each of the three times of measurement. A summary table of their results is presented in Table 4.11. This approach to mapping development enables the separation of differences that result from tenure, cohort and time of measurement effects. The diagonals in the model distinguish successive cross-sectional studies between the years 1994 and 1996. As discussed, results using the full samples for each of these years have shown a significant decrease in commitment with increasing tenure in the data collected in 1994 and 1995, but not 1996. The repeated-measures sample appears to follow similar trends.

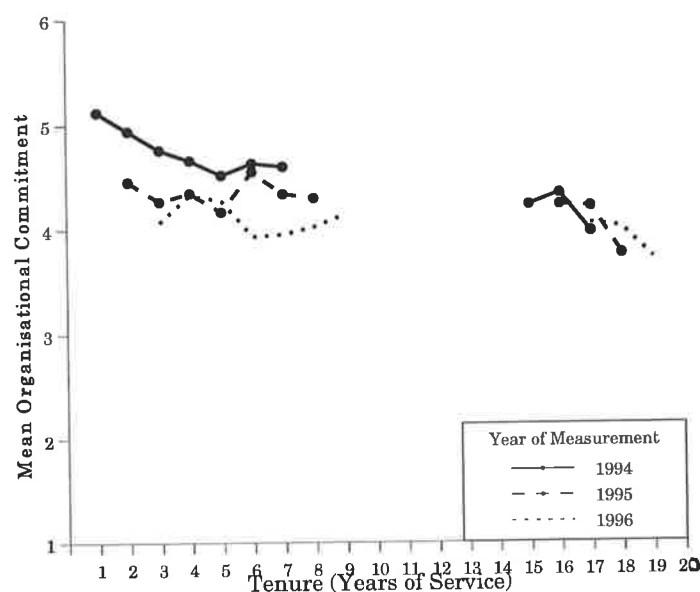


Figure 4.3. Organisational commitment by cohort (1994, 1995 and 1996): Cross-sectional results.

Table 4.11.

Developmental Model of Organisational Commitment: Means (and standard deviations).

Cohort	Year of recruitment	n	Tenure (Years in organisation) 1	2	3	4	5	6	7	8	9	15	16	17	18	19	
10.	1977	49												4.09 (1.30)	**3.89** (1.22)	*3.85* (1.25)	
9.	1978	57											4.35 (1.09)	**4.19** (1.20)	*4.01* (1.30)		Matrix 8
8.	1979	59										4.23 (0.94)	**4.26** (1.13)	*4.04* (1.05)			Matrix 7
7.	1987	50							4.70 (0.96)	**4.31** (0.85)	*4.18* (0.89)						
6.	1988	51						4.58 (0.95)	**4.30** (1.00)	*3.93* (1.20)							Matrix 6
5.	1989	47					4.67 (0.95)	**4.54** (1.08)	*4.06* (1.25)								Matrix 5
4.	1990	40				4.78 (1.09)	**4.25** (1.05)	*3.98* (1.27)									Matrix 4
3.	1991	46			4.83 (0.91)	**4.49** (1.12)	*4.23* (1.11)										Matrix 3
2.	1992	37		4.89 (0.98)	**4.28** (0.96)	*4.33* (1.00)											Matrix 2
1.	1993	43	5.00 (0.96)	**4.33** (0.86)	*4.09* (1.11)												Matrix 1

Note. Scores measured in 1994, **1995** and *1996*.

Examination of the time-lag trends (i.e., the vertical data) indicates that cohorts measured in 1994 had higher levels of commitment than cohorts with comparable tenure when measured in 1995, and that these cohorts had, in turn, higher levels of commitment than cohorts with comparable tenure when measured in 1996. For example, comparing cohort 3 measured during 1994 (M = 4.83, SD = 0.91) with cohort 2 measured in 1995 (M = 4.28, SD = 0.96) and cohort 1 measured in 1996 (M = 4.09, SD = 1.11) shows that there has been a time of measurement effect influencing the commitment levels of individuals with 3 years of service. Furthermore, this result seems to be stronger for the cohorts with less than 10 years of experience, suggesting that there may also be a cohort effect in operation.

Following Schaie and Baltes (1975), a statistical analysis of the developmental model will enable the discrimination of the influence of cohort and time of testing

(environmental) factors. The presence of a developmental function would be determined statistically by a series of 2 (Tenure) x 2 (Cohort) repeated measures analyses of variance. As described in previous chapters, the presence of tenure effects, coupled with the absence of cohort and interaction effects, has been deemed to be acceptable evidence of a true developmental function (Schaie & Baltes, 1975).

Eight repeated measures analyses of variance on the factors Tenure (years of service) and Cohort were carried out. Each matrix examined the change in commitment levels across one year of tenure for officers from two consecutive cohorts (e.g., Matrix 1 compared scores at 2 and 3 years of tenure for cohorts 1 and 2). The results of the analyses are reported in Table 4.12 (refer to Appendix 4.13 for the summaries of these analyses).*

Table 4.12.
Repeated Measures Analysis of Variance of the Development of Organisational Commitment.

Matrix	Cohorts	Tenure (Years service)	Cohort effect	Tenure effect	Interaction effect
1.	1 & 2	2 & 3	ns	19.69***	3.84*
2.	2 & 3	3 & 4	ns	ns	6.62*
3.	3 & 4	4 & 5	ns	21.24***	ns
4.	4 & 5	5 & 6	5.56*	7.56**	ns
5.	5 & 6	6 & 7	ns	16.75**	ns
6.	6 & 7	7 & 8	4.35*	23.88***	ns
7.	8 & 9	16 & 17	ns	5.14*	ns
8.	9 & 10	17 & 18	ns	5.88*	ns

*$p < .05$, **$p < .01$, ***$p < .001$.

All but one (Matrix 2) of the analyses showed a significant Tenure effect, indicating that commitment decreased as tenure increased across the complete range (i.e., from one to 18 years of experience). Two of the analyses (Matrices 4 and 6) also showed a significant Cohort effect, with post hoc analyses indicating that in both cases

the commitment levels of the junior cohorts (i.e., Cohort 4 in Matrix 4 and Cohort 6 in Matrix 6) were significantly lower than the levels of the senior cohorts at both times of measurement. Finally, two of the analyses (Matrix 1 and 2) showed a significant interaction (Tenure x Cohort) effect. In both cases, post hoc analyses indicated that the commitment levels of the junior cohorts (i.e., Cohort 1 in Matrix 1 and Cohort 2 in Matrix 2) dropped significantly more than the levels of the senior cohorts across the 12 month period. Despite these contraindications, taken as a whole, the results suggest that affective organisational commitment can be mapped as a developmental function which has an early rapid decrease that seems to flatten somewhat, but which continues to decrease significantly although at a slower rate.

Although this would appear to be evidence for an asymptotic form for the developmental trend, one possibility that must be considered is the presence of a floor effect. In other words, the commitment levels of the more experienced officers are at a level which cannot decrease in larger increments. However, there are several reasons to doubt that a floor effect is acting to restrict the developmental trend in this case. First, several other studies have reported comparable scores on the OCQ that are lower than those reported by the experienced officers (e.g., Martelli, Waters, & Martelli, 1992; Schwarzwald et al., 1992). Furthermore, the cross-sectional data collected for the current study from New Zealand indicated that the trend (i.e., rapid decrease in commitment during the earliest period of tenure, followed by a slower decrease in commitment with increasing tenure) was consistent albeit at a higher absolute level of commitment. In other words, the plateau effect was found even in a sample with overall higher levels of commitment. Finally, the standard deviations found in the experienced samples were not smaller than those of the less experienced samples (refer to Table 4.11). This would tend to argue against the presence of a restriction in the range of means reported by the more experienced officers, and in turn against the presence of a floor effect. Overall, this suggests that the smaller decrease in commitment for the more experienced cohorts was true to the developmental function rather than a floor effect.

Returning to the results of the cross-sequential data, the presence of significant cohort and interaction effects in some of the analyses for cohorts with less than 10 years of experience argues that some cohort or environmental influences were also operating to modify the commitment levels of the less experienced officers. An examination of the relationships between commitment and the other measures collected for Survey 2 and 3 may illuminate these influences.

(c) Factors associated with the decline in organisational commitment within police organisations. To determine the influence of the factors measured in Surveys 2 and 3 on individual levels of organisational commitment, two regressions were conducted. Given the presence of a developmental trend linked to tenure, years of service was entered on the first step of the hierarchical regression, followed by stepwise entry of the set of associated factors. The results of these regressions are shown in Table 4.13.

Table 4.13.
Summary of Hierarchical Regression Analyses for Factors Explaining Organisational Commitment.

Factor	1995 (n = 527) β	1995 (n = 527) R^2_{cha}	1996 (n = 522) β	1996 (n = 522) R^2_{cha}
Step 1				
Tenure	-0.11	.020***	-0.11	.098**
Step 2				
Perceived organisational support	0.41	.384***	0.31	.437***
Confirmed expectations	0.31	.105***	0.23	.045***
Investments	0.21	.046***	0.14	.012***
Role ambiguity	-0.13	.015***	-0.09	.010***
Promotion in past 12 months	-0.10	.008**		
Self esteem	-0.09	.007**		
Organisational commitment norm (self)			0.29	.145***
Communication: Quality			0.08	.005**
Cynicism: Senior officers			-0.08	.003*

Note. R^2 = .59 and R^2_{adj} = .58 [$F_{(7,519)}$ = 104.81, p < .001] for the 1995 sample; R^2 = .67 and R^2_{adj} = .66 [$F_{(8,513)}$ = 127.85, p < .001] for the 1996 sample.
*p < .05, **p < .01, ***p < .001.

Overall, the factors that entered the regression equations accounted for 58% and 66% of the variance in commitment levels measured in 1995 and 1996 respectively. Furthermore, the results of these regressions were very similar to the results of the 1994 regression (see Table 4.7), suggesting that there was a reasonable degree of stability in the factors that explain individual differences in commitment across the three times of measurement. In addition, factors from each of the aspects of the organisation were found to be important to the explanation of individual differences in organisational commitment.

Specifically, with the influence of tenure controlled, the factors that explained the greatest amount of variance in commitment were perceived organisational support (30%, 38% and 44% for 1994, 1995 and 1996 respectively), confirmed expectations (10%, 11% and 5%), and degree of personal investment in the organisation (4%, 5% and 1%). In each case, an increase in the level of commitment was linked to an increase in the level of the factor. Additionally, decreases in role ambiguity and self esteem were related to higher levels of commitment in 1995, and increases in personal commitment norm and perceptions that communication processes were appropriate, and decreases in cynicism directed at senior officers, were related to higher levels of commitment in 1996. Finally, in the 1995 sample, commitment was related to promotion during the past 12 months, so that higher levels of commitment were reported by officers who had been promoted.[22]

In summary, these results provide additional support for the theory that experience of each of the different aspects of the organisation (i.e., formal organisational climate, informal organisational climate, and role characteristics) as well as personal characteristics and met-expectations have an influence on the development of organisational commitment.

(d) Explanation of cohort and interaction effects. Within the regression conducted with the 1996 data, the influence of tenure was almost negligible, albeit statistically

---

[22] Within these regressions, promotion in the past 12 months was scored as 1 = "yes" and 2 = "no". Hence, a negative beta score suggests that officers who had been promoted tended to report higher levels of commitment.

significant. This is consistent with the cross-sectional results from 1996, in which no differences in commitment were found between the cohorts. Furthermore, the result is consistent with the developmental model, where cohort and interaction effects operated only in the matrices of less experienced cohorts (i.e., cohort effects operated in matrix 4 [cohorts 4 and 5] and in matrix 6 [cohorts 6 and 7], and interaction effects operated in matrix 1 [cohorts 1 and 2] and in matrix 2 [cohorts 2 and 3]). Specifically, the less experienced cohorts reported larger drops in organisational commitment than the more experienced cohorts with which they were compared, to the point that, by 1996, there was no discernible difference in the average commitment levels of the ten cohorts compared cross-sectionally. It appears that something occurred between 1994 and 1996 that had a radical effect on the commitment levels of junior police officers. On the other hand, the decrease in commitment reported by the most experienced cohorts was considerably smaller than the decrease reported by the junior officers, despite the fact that the developmental analysis showed a tenure (development) effect for them.

This difference in responses by the cohorts could be explained in a number of ways. First, it is possible that the developmental trend is asymptotic, so that larger decreases would be expected within the less experienced cohorts than in the more experienced cohorts. In view of the cross-sectional result from 1994, this explanation would appear quite probable. However, the junior cohorts in this study reported much larger drops in commitment in the 1995 data than would be predicted from this trend. In other words, something other than the "normal" decrease was exhibited. An alternative explanation for the differences in responses might be that different factors were influencing the commitment levels of the less experienced cohorts compared with the more experienced cohorts.

To test this hypothesis, the samples from 1994, 1995 and 1996 were divided into two groups; junior (Cohorts 1 - 7) and senior (Cohorts 8 - 10). The distinction was made because the cohort and interaction effects (reported in Table 4.12) being explored occurred in matrices including Cohorts 2 to 7. Grouping the participants in this way

enabled comparisons to be made between the cohorts demonstrating cohort and interaction effects (i.e., the junior cohorts) and those that did not (i.e., the senior cohorts). Regression analyses indicated that there were minor differences in the factors that influenced the commitment levels of the two groups at each time (Table 4.14).

Table 4.14

Summary of Hierarchical Regression Analyses for Factors Explaining Organisational Commitment in Junior and Senior Cohorts.

Factor	Junior cohorts β	Junior cohorts R^2_{cha}	Senior cohorts β	Senior cohorts R^2_{cha}
1994	(n = 448)		(n = 220)	
Step 1				
Tenure		.030***		.013
Step 2				
Perceived organisational support	0.20	.077***	0.48	.398***
Confirmed expectations	0.29	.325***	0.28	.101***
Investments	0.14	.034***	0.23	.055***
Work ethic	0.13	.019***	0.10	.008*
Cynicism - Rules and regulations	-0.15	.018***	-0.10	.008*
Met expectations - Career development	0.11	.012***		
Met expectations - Work conditions	0.10	.007**		
Commitment propensity	0.08	.005*		
Positional tenure	-0.07	.004*		
1995	(n = 344)		(n = 183)	
Step 1				
Tenure		.001		.010
Step 2				
Perceived organisational support	0.47	.391***	0.38	.390***
Confirmed expectations	0.29	.085***	0.37	.146***
Investments	0.27	.074***	0.11	.012*
Promotion in the past 12 months	-0.08	.007*	-0.12	.015**
Self esteem	-0.11	.010**		
Role ambiguity			-0.21	.038***
1996	(n = 341)		(n = 181)	
Step 1				
Tenure		.011		.019
Step 2				
Perceived organisational support	0.26	.452***	0.38	.394***
Organisational commitment norm (self)	0.35	.180***	0.21	.096***
Confirmed expectations	0.25	.051***	0.18	.035***
Investments	0.10	.006**	0.19	.032***
Role ambiguity	-0.07	.004*	-0.13	.012*
Cynicism: Senior officers	-0.14	.010***		
Promotion in past 12 months			-0.12	.012*
Communication: Quality			0.14	.022**

Note. R^2 = .53 and R^2_{adj} = .52 [$F_{(10,437)}$ = 49.77, $p < .001$] for the 1994 Junior sample; R^2 = .53 and R^2_{adj} = .57 [$F_{(6,213)}$ = 49.47, $p < .001$] for the 1994 Senior sample; R^2 = .57 and R^2_{adj} = .56 [$F_{(6,337)}$ = 73.93, $p < .001$] for the 1995 Junior sample; R^2 = .61 and R^2_{adj} = .60 [$F_{(6,176)}$ = 43.05, $p < .001$] for the 1995 Senior sample; R^2 = .71 and R^2_{adj} = .61 [$F_{7,333)}$ = 119.04, $p < .001$] for the 1996 Junior sample; R^2 = .62 and R^2_{adj} = .60 [$F_{(8,172)}$ = 35.45, $p < .001$] for the 1996 Senior sample.

*$p < .05$, **$p < .01$, ***$p < .001$.

As would be expected, tenure had no impact in the regressions, since the grouping of the cohorts eliminated much of the variance in tenure in each group. Once again, perceived organisational support, confirmed expectations and investments accounted for the largest proportion of the variance in each of the regressions. It is interesting to note that the regressions for the senior cohorts were almost identical across time. However, some significant differences were indicated within the junior cohort across time. Specifically, whilst the factor confirmed expectations was the most important in the junior group in 1994 and perceived organisational support was second, this order was reversed in 1995 and the reversal was maintained in 1996. (Note that this makes the junior group more like the senior group in the latter two years.) Furthermore, between 1995 and 1996, self esteem was eliminated from, and cynicism directed toward senior officers and role ambiguity were included in, the 1996 regression.

Given the unexpected drop in commitment in the less experienced cohorts and the increase in their levels of cynicism, it could be argued that the junior officers were reacting to external factors. Although there is no way of determining from the present data set the exact nature of the external factor(s), a specific event occurred in 1995 that may partially explain the effect. During 1995, the New South Wales government established a Royal Commission[23] with orders to investigate corruption in the New South Wales Police Service. Several very senior officers were found to have behaved corruptly and were dismissed by the department. The ensuing media attention caused a significant backlash in the department, including the introduction of stronger measures to discipline officers in whom the Commissioner of Police had lost confidence. Many officers felt that senior management were over-reacting. In view of this, the present findings suggest that the junior cohorts may have been influenced more profoundly by the event, than their more experienced colleagues. This is not an unreasonable inference given that the more experienced officers may have been exposed to similar experiences previously. The junior

---

[23] A Royal Commission is a person or group of people, usually judicial, appointed by the government to enquire into some aspect of public affairs.

cohorts, however, seem to have reacted to the events by increasing cynicism directed at senior management and, in turn, decreasing organisational commitment. In other words, it is possible to suggest that at least some of the interaction and cohort effects found in the developmental model were the result of the Royal Commission.

(e) Promotion and the development of organisational commitment. Returning to an examination of the organisational factors, the regression analyses comparing the junior and senior groups indicated that experiencing promotion in the previous 12 months had a positive effect on individual levels of organisational commitment. Schwarzwald et al. (1992) reported that individuals who expected to be promoted but were not had lower levels of commitment than individuals who either expected to be, and were, promoted or who did not expect to be promoted. The authors surmised that feelings of inequity regarding the promotional decision were responsible for the lower levels of commitment. In other words, people who felt let down by the organisation when they did not receive a promotion they believed they deserved, tended to feel less committed to the organisation. On the other hand, people who received a promotion they expected had the highest levels of commitment, and those who received a promotion they did not expect reported intermediate levels of commitment. However, Schwarzwald et al.'s results were confounded by the fact that they measured commitment only after the promotions had been made. They could not, therefore, eliminate the possibility that the promoted group had higher levels of pre-promotion commitment than the non-promoted group.

Data were collected in the present study that could be used to compare the changes in commitment (between 1995 and 1996) in four groups: officers who expected to be, and were, promoted (n = 132), officers who expected to be, and were not, promoted (n = 71), officers who did not expect to be, but were, promoted (n = 79), and officers who did not expect to be, and were not, promoted (n = 216). Following Schwarzwald et al.'s (1992) reasoning, it is expected that the commitment levels of each of these groups would be related to perceived equity. Therefore, the highest and lowest levels of commitment should be reported by officers who expected and got promotion and those who expected

but did not get promotion respectively. The levels of commitment reported by officers who had not expected to be promoted should fall somewhere in between the two (Schwarzwald et al., 1992). However, assuming that promoted individuals would feel that they, in return for the promotion, owed something to the organisation, they should have higher levels of commitment than those who were not promoted (Eisenberger et al., 1986).

The results of a repeated measures analysis of variance indicate a main effect for time ($F_{(1,480)} = 29.18$, $p < .001$) and a main effect for group ($F_{(3,479)} = 7.22$, $p < .001$; refer to Appendix 4.14). No interaction effect was found. As expected, given the influence of tenure, commitment decreased from 1995 to 1996. Contrary to the hypothesis and Schwarzwald et al.'s (1992) findings, planned comparisons for the four groups indicated that officers who did not expect promotions and were not promoted reported lower levels of commitment than the other three groups (which did not differ from each other; refer to Appendix 4.14). Essentially this means that the other three groups cannot be differentiated in either of the data collections. It could be argued that low levels of commitment would be reported by officers who have a global sense of the inequality of the system which is crystallised in the perceived unfairness of promotional decisions (i.e., such that promotion is not expected nor received). This does not explain, however, why the group of officers who did not expect promotion, yet were actually promoted, reported levels of commitment the same as groups who did expect promotion.

A possible explanation for this apparent anomaly is that the officers who did not expect promotion were, either intentionally or unintentionally, being modest about their chances. One variable that may provide some insight into this suggestion is self esteem, since individuals with low levels of self esteem may be more likely to underestimate their ability and value to the organisation. The results of a one-way analysis of self esteem measured in 1995 indicated that there were no major differences between the four groups, although the result approached significance ($F_{(3,497)} = 2.44$, $p = .06$). However, this does not preclude the existence of other characteristics related to confidence or ability -- but not measured in this study -- that explain why this group does not differ from the

groups who expected promotion.

According to the hypotheses, the levels of the four groups should have changed, in different ways, at the 1996 data collection as a result of experiencing -- or not experiencing -- promotion. The absence of an interaction effect indicates that this was not the case, but that the three groups continued to be indistinguishable from each other and higher than the fourth group. One explanation of this result may be that the group who had expected to be promoted in the previous 12 months had not given up expecting to be promoted. Their levels of commitment were, therefore, comparable to the levels of the promoted groups. Although not consistent with the findings of Schwarzwald and his colleagues (1992), neither of the studies tested the expectations of the non-promoted groups at the second time commitment was measured. Therefore, caution needs to be used in this interpretation of the results. One final alternative explanation could be that the influence of the promotion event caused an immediate increase in the officers' commitment levels, but the effect wore off rapidly as experience of the organisation within the new role caused further dissatisfaction with the organisation so that, by the time of the second measurement of organisational commitment, the effect had dissipated. Once again, this cannot be tested within the present data set, but remains as a possible explanation of the influence, or lack thereof, of promotion on organisational commitment.

In summary, the experience of promotion (one form of organisational reward) was linked in the regression to higher levels of organisational commitment in police organisations. However, a more detailed examination of the effect indicates that the effect is so small that the experience of promotion is unable to overcome the developmental decrease that results from increasing experience of, and disillusionment with, the organisation through time.

(iv) Summary of Results and Conclusion

The aim of this study was to determine whether organisational commitment could be mapped as a developmental function based on tenure (experience in the organisation), and to identify different aspects of formal organisational, informal organisational and

role characteristics which, when experienced by the employee, may be responsible for this development. Cross-sequential organisational commitment data were collected, along with measures of factors assigned to each of the antecedent categories. The nature of the data collection meant that, while the developmental function could be isolated, describing the relationships between commitment and its theoretical antecedents was necessarily an exploratory exercise.

The results provide strong empirical evidence that organisational commitment follows a developmental trend. This finding is of importance to the organisational commitment literature because it provides validation for the assumption of a developmental factor in many of the studies reported previously. However, the trend found here is negative. Moreover, this trend is somewhat confounded in the present study by cohort and time of measurement effects. One possible explanation for these effects was the establishment of a Royal Commission during 1995-6. The exploratory regression results support this conclusion, with cynicism toward senior officers influencing the commitment levels of junior cohorts in the 1996 data set, but not the 1995 data set. This suggests that junior officers, who had not previously experienced the problems associated with an external and wide-ranging examination of the police organisation, linked cynicism toward senior officers to their personal levels of commitment to the organisation. Although there is the possibility that there is a floor effect preventing a larger decrease in the commitment levels of the more experienced officers, there is strong evidence for a trend for decreasing organisational commitment with increasing tenure. The result was consistent cross-culturally, but New Zealand reported a significantly higher level of organisational commitment independent of tenure. (This higher level could be explained, in part, by higher levels of perceived organisational support, global confirmed expectations, and met-expectations relating to both career development opportunities and employment conditions).

Overall, the results of the studies reported in this chapter provide empirical evidence that experiences of the organisation impact the development of work-related

attitudes. Specifically, strong positive relationships have been demonstrated between organisational commitment and experiences that lead to the perception of organisational support, and organisational commitment and the degree to which the individual feels that their experience has caused them to make investments in the organisation. One could argue that by modifying these experiences, managers of police organisations may be able to enhance their employees' levels of organisational commitment. In fact, a number of researchers have concluded that commitment levels could be increased by enhancing the degree to which the individual feels supported by the organisation (Eisenberger et al., 1986; Robinson et al., 1994), the degree to which the individual has invested in the organisation and can participate in decision-making (Callan, 1993; Mowday et al., 1982; Rusbult & Farrell, 1983), and the amount of feedback received about job performance and role requirements (Mathieu & Zajac, 1990). However, the data on which these authors base their conclusions, as well as those presented in the present study, are correlational, and it is not appropriate to make causal implications on the basis of these results. One way in which to validate the contention that commitment can be improved through, for example, enhancing perceived organisational support, is to ask directly the individuals for whom the intervention is to be designed. This form of qualitative data were collected within the present study, and the results are presented in the following chapter with the aim of strengthening the conclusions that can be drawn from the empirical findings of this study.

Aside from this validation study, there are a number of issues relating to the development of organisational commitment arising from this study that remain to be addressed. First, the major study in this thesis did not examine how development is influenced by the experience of early socialisation (i.e., formal training and first work assignment). Consequently, a second study was undertaken to identify and examine any changes in organisational commitment that occurred during training and the first 12 months of "real"service. This study is reported in a following chapter (Chapter 6).

Another issue identified during data analysis for Survey 1 and deemed to warrant further attention (see Section 4.2.(ix)), was whether it is experiences associated with working in the police organisation or the experiences associated with the role of police officer that are responsible for the developmental decrease in commitment found in this study. This is important because the trend was not as would be expected from the literature (e.g., Mowday et al., 1982), and suggests that developmental trends may be different in different organisations or occupations. To examine this issue, a comparative study using a sample of nonsworn police employees of the New South Wales Police Service was conducted, and the results are reported in Chapter 7.

Finally, the regressions conducted in this chapter were exploratory in nature. As discussed in the opening chapters of this thesis, the literature on organisational commitment contains a "laundry list" (Reichers, 1985) of potential antecedents, the majority of which have been studied with little theoretical constraint. Within the present study, an attempt has been made to confine this laundry list to a theoretical framework based on the notion that organisational commitment is a global, affective attitude that is activated in response to experiences with various aspects of the organisation (formal, informal and work characteristics) and influenced by various personal characteristics. Furthermore, experience of the different aspects of the organisation will change with increasing tenure, thereby having a moderating influence on organisational commitment over time. The exploratory regressions were conducted simultaneously, that is by allowing stepwise regression of the factors onto organisational commitment measured at the same time. The results of these regressions provide some preliminary support for the theoretical framework, by highlighting relationships between commitment and some of the factors (Table 4.15).

One problem with the analyses presented in this chapter is that different factors were measured at different times, meaning that the regressions were not truly comparable at the three data collections. In addition, simultaneous regressions do not demonstrate lagged "causal" relationships (i.e., how factors measured in 1994 influence

commitment levels in 1995 and 1996). Although causality cannot be proved using lagged analysis techniques, this form of data analysis allows for causal inferences to be made in situations where experimental designs are not feasible. Most recently, a data analysis technique known as structural equation modelling (SEM), and conducted using the computer program called LISREL (Jöreskog & Söbom, 1989), has been used in attempts to make causal inferences in nonexperimental studies. Furthermore, this technique allows for simultaneous examination of the influence of different factors measured at different times in longitudinal data collections. The application of this explanatory data analysis to the present data set, with a view to strengthening the theoretical framework into a more structured model of the antecedents of organisational commitment, is reported in Chapter 8.

UNIVERSITY OF ADELAIDE LIBRARY

Table 4.15

Factors That Entered the Simultaneous Exploratory Regressions.

Measure	Survey 1	Survey 2	Survey 3
1. **Organisational commitment**		(Dependent)	
2. Understanding of organisational goals	✓	✓	✓
Personal Characteristics			
3. Age	✓		
4. Gender	✓		
5. Tenure (Organisational)	✪		
6. Time in training	✓		
7. Rank	✓		
8. Posting (Duties)	✓		
9. Positional tenure	✓		
10. Protestant Work ethic	✪		
11. Commitment propensity	✓		
12. Cynicism: Rules and regulations	✪	✓	✓
13. Senior officers	✓	✓	✪
14. Legal system	✓	✓	✓
15. Citizens	✓	✓	✓
16. Self esteem		✪	✓
17. Investments	✪	✪	✪
18. Job availability		✓	
19. Tertiary qualifications		✓	
Leader (Formal) Organisational Climate			
20. Communication: Quality	✓	✓	✪
21. Information exchange	✓	✓	✓
22. Participation in decision-making	✓		
23. Perceived organisational support	✪	✪	✪
24. Promoted in last 12 months		✪	✓
25. Promotion expectations		✓	
Work group (Informal) Organisational Climate			
26. Peer cohesion	✓		
27. Commitment norms (General)	✪		
28. Social involvement	✓		
29. Norms: Self			✪
30. Peers			✓
31. Supervisor			✓
32. Senior officers			✓
Role Characteristics			
33. Role ambiguity		✪	✪
34. Role conflict		✓	✓
Met-expectations			
35. Confirmed expectations	✪	✪	✪
36. Specific: Career development	✪		
37. Employment conditions	✪		
38. Working conditions	✓		
39. Work group	✓		

Note. ✓ Indicates inclusion in survey but no significant contribution to regressions predicting organisational commitment; ✪ Indicates significant contribution to the simultaneous exploratory regression.

Chapter 5

Improving Organisational Commitment:

Qualitative Validation of the Quantitative Results.

1. Introduction

(i) The Impact of Tenure on Factors Influencing Organisational Commitment in the Quantitative Data

The results of the regressions reported in the previous chapter suggest two things. First, there is a strong positive relationship between individual levels of organisational commitment and perceived organisational support. Similar relationships, albeit not as strong, also exist between organisational commitment and confirmed expectations, commitment and investments, and commitment and role ambiguity (see Tables 4.7 and 4.13). Second, these relationships seem to be influenced by tenure. Differences resulting from tenure became apparent when regressions were conducted on the sample after it was divided into two groups: senior officers (i.e., those in cohorts 8 - 10) and junior officers (i.e., those in cohorts 1 - 7). On one hand, the relationship between organisational commitment and perceived organisational support strengthened across time in the junior sample (i.e., $\underline{R}^2_{cha}$ = .08 in 1994, .39 in 1995 and .45 in 1996; Table 4.15). On the other hand, the strength of the relationship did not change for the senior group (i.e., $\underline{R}^2_{cha}$ = .40 in 1994, .39 in 1995, and .39 in 1996; Table 4.15). In other differences, relationships between organisational commitment and role ambiguity, and commitment and promotion in the last 12 months, were found in the senior group but not in the junior group (Table 4.15).

The first of these findings suggests that some factors are impacting on individual levels of organisational commitment independent of tenure. The most important relationships are those between commitment and the degree to which the individual feels supported by the organisation (i.e., perceived organisational support), the degree to which the individual has invested in the organisation and can participate in decision-making (i.e., investments), and the amount of feedback received about job performance

and role requirements (i.e., role ambiguity). To the contrary, however, the second finding indicates that there may be subtle differences in the relationships. It could be argued that the more experienced officers have different perceptions of the organisation than the junior group, simply as a function of their experience of the organisation. Specifically, the more experienced officers, many of whom are in positions that interface with management, may have a unique view of organisational processes, and how these processes influence their working environment and that of the junior officers under their supervision.

In essence, it could be contended that the use of standard empirical measures of perceived organisational support, of perceived investments, and of role ambiguity, may be masking substantive differences between the two groups of officers. From an applied point of view, this needs to be further examined as it suggests that a multifaceted approach may need to be implemented to improve levels of commitment across the organisation. From a theoretical point of view, it is important to validate these results to provide further evidence for developmental differences in organisational commitment.

(ii) Validation of Quantitative Data

The use of triangulation or the "multiple operation" approach (i.e., comparing the results of a combination of research techniques to determine the strength of a research finding) is propounded by authorities to be a reasonable way of determining the validity of research results (Webb, Campbell, Schwartz, & Sechrest, 1965). One method that may be used to verify, or validate, quantitative data is the content analysis of qualitative data (Holsti, 1969; Miles & Huberman, 1984). Specifically, by analysing the content of spontaneous responses to open-ended questions about methods for improving of organisational commitment, about perceived organisational support, about perceived investments, and about feedback, it may be possible to match the discriminant results found in the empirical data (i.e., differences between junior and senior groups). Miles and Huberman (1984) allow that it is appropriate within a confirmatory study to use

relatively focused research questions and a well-bounded sample of participants.[24]

Therefore, this study was designed to explore further the results of the empirical surveys by asking both senior officers (i.e., cohorts 8 - 10 with between 16 and 18 years of experience) and junior officers (i.e., cohorts 1 - 7 with between 2 and 8 years of experience) to identify ways that management might improve organisational commitment. In addition, the study aimed to ascertain differences between the two groups in the perceived usefulness of specific tactics for dealing with low levels of perceived organisational support, investments and feedback.

2. Method

(i) Participants and Procedure

The sample for this study consisted of the 739 officers who responded to the 1994 survey. The open-ended questions were included in Survey 2, 1995. As was outlined in Chapter 4 (see p. 79), questionnaires were mailed to the work address of each of the officers, with a reply-paid envelope for return of the completed form. After four weeks, reminder letters were posted to those officers who had not returned the survey. After a further four week interval, a second copy of the questionnaire was sent to the officers who had still not responded. The overall return rate for this sample was 79.8% (n = 590), with missing data reducing the number of useable questionnaires to 581.

(ii) Measures

A series of questions was devised to elicit the officers' opinions about improving organisational commitment, organisational support, investments and feedback. An open-ended format was selected for these questions to allow the officers to provide as much, or as little, information as they wished in response to each question. Space was provided after each question for their answers, and respondents were instructed to attach extra blank pages if they found this space to be insufficient. Specifically, the questions were

---

[24] If this study was an exploratory study, using this form of closed instrumentation would be inappropriate because the aim would be illuminate any relationships between commitment and other factors. In the present study, these factors have already been highlighted and the aim now is to make a further exploration of what the officers actually mean when they are asked about these factors.

designed to elicit information about ways in which management could improve commitment of organisational members (Q1), increase support for members (Q2), improve feedback to members (Q3, 4 and 5), and enhance the investments made by members (Q6 and 7). They consisted of:

1. How do you think commitment to the police organisation might be improved?
2. In what ways do you think that the police organisation demonstrates a lack of support (for its officers)?;

   In what ways does the organisation demonstrate support?;

   How could the organisation better demonstrate support for its members?
3. From whom do you currently receive feedback about your performance?;

   What form does this feedback usually take?
4. Is there anyone else from whom you would like / prefer to get feedback about your performance?;

   Is there anything specific you would like them to give you feedback about?;

   What form would you like this feedback to take (e.g., written appraisals, verbal reports, etc.)?
5. What sources provide you with information about <u>organisational procedures or processes</u> (e.g., changes in procedures, promotional opportunities, general information)?
6. A number of suggestions for improving morale have been made in police literature. These have included the possibility of external qualifications as an entry requirement, development of defined career paths <u>within</u> patrol duties, and implementation of career development programmes. Do you have any comments about these suggestions?
7. What problems or issues might cause you to leave the police department? (Please list).

(iii) Analysis

(a) Breakdown of responses. Content analysis of the responses to each question was conducted. For each question each officer's response was divided into **response units** which contained one thought, point, topic, or argument. As an example, an officer may have commented on three separate topics in response to one question. This response would therefore be divided into three response units. On the other hand, an officer may have written a full page which covered only one topic. This would represent only one response unit. Next, for each question, the individual response units derived from the responses of all of the officers were sorted into **response categories**. It should be noted that the response units within the individual officer's answer had to be independent, i.e., free of overlap. That is, an officer's answer could only be counted once in any given response category, but individual parts of the answer could be assigned to more than one response category.

(b) Reliability. For the present study, response categories for each of the questions were established on the basis of a sample of 60 questionnaires (i.e., 10%). To ensure reliability, an independent researcher coded 12 of the sample surveys (20%), assigning the responses to the established categories. Of the 276 individual response units that were generated in these 12 surveys, 202 (73%) were identified and assigned to identical categories, 57 (21%) were identified by one but not the other researcher, and 17 (6%) were identified but coded into different categories. Discussion of the criteria used by each researcher to assign responses to a particular category resolved the discrepancies and clarified the criteria for each category.

The revised classification process was then applied to the remaining surveys. The answers to each question were divided into response units and each unit was assigned to one of the categories devised for that question. On completion of the assignment process, categories that were nominated by less than 5% of the respondents to the question were combined into one category which was designated "Other".

3. Results and Discussion

The sample was divided into two groups of officers: junior officers (i.e., members of cohorts 1 - 7) and senior officers (i.e., members of cohorts 8 - 10). A breakdown of the responses from the two groups was designed to illuminate any differences in their views about improving commitment that may highlight developmental differences. The demographics for the overall sample and the two groups separately are given in Table 5.1.

Table 5.1

Demographics of the Sample.

	Overall (n = 581)	Junior (n = 390)	Senior (n = 191)
Age [Years (s.d.)]	30.53 (6.69)	27.03 (4.67)	37.71 (3.86)
Rank (N [%])			
Constable	376 (64.7)	376 (96.4)	0 (0.0)
Senior Constable	148 (25.5)	11 (2.8)	137 (71.7)
Sergeant	52 (9.0)	3 (0.8)	49 (25.7)
Senior Sergeant	3 (0.5)	0	3 (1.6)
Commissioned Officer	2 (0.3)	0	2 (1.0)
Gender			
Male [N (%)]	488 (85.0)	309 (79.2)	179 (93.7)
Female [N (%)]	86 (15.0)	77 (19.7)	9 (4.7)
Time at current posting [Years (s.d.)]	2.56 (2.58)	1.84 (1.68)	4.06 (3.36)
Posting [N (%)]			
Patrol duties	378 (65.1)	282 (72.3)	96 (50.3)
Criminal Investigation	68 (11.7)	42 (10.8)	26 (13.6)
Specialist Squad	18 (3.1)	6 (4.6)	12 (6.3)
Physical Activity Squad	27 (4.6)	14 (3.6)	13 (6.8)
Community Policing	4 (0.7)	3 (0.7)	1 (0.5)
Administration	48 (8.3)	21 (5.4)	27 (14.1)
Specialist Position (e.g., Trainer, Forensic)	34 (5.9)	20 (5.1)	14 7.3)
Qualifications [N (%)]	254 (43.7)	165 (42.3)	90 (47.1)
Trade	118	74	44
Certificate / Diploma	79	51	28
University Degree	51	36	15
Higher Degree	6	3	3
Organisational commitment (1995)	4.26 (1.09)	4.36 (1.03)	4.07 (1.20)[a]
Perceived organisational support (1995)	3.48 (0.76)	3.51 (0.75)	3.40 (0.78)[b]

[a] $t = 2.93$; $p < .01$.
[b] $t = 1.60$; p = n.s.

The results for each question are set out in tables that list the categories generated from the responses of the sample in descending order of frequency. The frequencies of responses are shown separately for the junior and senior officers. In order to identify any significant differences in the responses of the two groups, Chi^2 statistics were calculated for each category. The Chi^2s were based on the assumption that the expected ratio of junior to senior responses within each category would, if responses were random, reflect the ratio of junior to senior respondents to that question. The expected frequency, based on this ratio, is also reported in each table. It should be noted that many of the officers addressed more than one issue in their answer to each question, so the total number of response units can be greater than the number of respondents. However, the fact that each category within a question was mutually exclusive (i.e., an officer could not be counted twice in the one category) means that frequency equals the number of officers whose response fell into that category.

(i) Methods for Improving Organisational Commitment

Four hundred and eighty-one officers gave answers to the first question, *How do you think commitment to the police organisation might be improved?*, and 11 response categories were generated (Table 5.2).

The responses to this question indicate that commitment could be improved if management demonstrated support for their officers through the provision of recognition, feedback and rewards. For example, the officers suggested that commitment would be enhanced if senior management recognised performance through praise and feedback (Category 1; $n = 171$), valued experience through allowing involvement in decision-making (i.e., interaction with senior management; Category 2; $n = 93$), corrected the attitudes toward officers and the performance of managers (Category 8, $n = 48$), and demonstrated trust in their members by providing high profile support (e.g., in newspapers or on television) for officers against malicious allegations made by members of the public (Category 10; $n = 30$). The officers also suggested areas in which changes to

Table 5.2

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Question: How do you think that commitment to the police organisation might be improved? ($n_{junior} = 311$; $n_{senior} = 170$).

Category	Observed (Expected) Frequency Junior	Senior	Chi^2	sig
1. Have confidence in officers, and provide feedback and rewards	118 (110.6)	53 (60.4)	2.22	ns
2 Involve officers in decision-making processes	56 (60.2)	37 (32.8)	1.01	ns
3. Pay more, and improve the pay-for-performance system	71 (59.5)	21 (32.5)	7.83	p<.01
4. Improve the promotional system	37 (49.2)	39 (26.8)	10.14	p<.01
5. Improve career development and incentive programs	44 (43.3)	23 (23.7)	0.04	ns
6. Improve working conditions	44 (37.5)	14 (20.5)	3.65	ns
7. Challenge government interference	27 (32.4)	23 (17.7)	2.75	ns
8. Improve management attitudes and performance	24 (31.1)	24 (16.9)	5.07	p<.05
9. Improve employment conditions	17 (22.0)	17 (12.0)	3.45	ns
10. Publicly support officers (especially against media attacks)	23 (19.4)	7 (10.6)	2.03	ns
11. Other	44 (44.0)	24 (24.0)	0.00	ns
Total (number of response units)	505	282		

organisational structures might improve commitment, such as the implementation of career development and incentive programs (Category 5; $n = 67$) and improvements in various working conditions (Category 6; $n = 58$). The responses in all of these categories support the contention that enhancing perceptions of support and feedback from the organisation should improve the commitment of individuals. Many officers suggested that extrinsic rewards, such as increasing pay (Category 3; $n = 92$), improving the promotional system and opportunities for promotion (Category 4; $n = 76$), and modifying employment conditions (e.g., superannuation packages, flexibility of work and work rotation; Category 9, $n = 34$), would improve commitment. These responses highlight specific tactics that the quantitative data reported in Chapter 4 have shown to be linked to increased investment in an organisation, and that may enhance the organisational commitment of police officers.

Significant differences between the junior and senior were found for three categories. For two of these, the number of senior responses was significantly higher than expected from the composition of the respondents. For the third, the number of junior officers was significantly higher. An interesting feature of the pattern of responses is that the supervisors were more likely to identify management issues (e.g., improving the attitudes and performance of management especially where managers are seen to be "only out for themselves" [Category 8]) or organisational policies (e.g., the promotional system [Category 4]) as impacting on organisational commitment. On the other hand, the junior officers were more likely to identify a need for increased pay [Category 3].

These results suggest a difference in the perspective of the junior and senior officer groups. Specifically, the more experienced officers are more likely to think in broad organisational terms, and identify strategies for improving organisational commitment at the management level, while the less experienced officers focus on personal considerations. This is consistent with the contention that the experience of officers with greater tenure provides them with greater insight into, as well as a better understanding of, the processes and procedures of the organisation.

(ii) Officers' Perceptions of Organisational Support

Three questions addressed the issue of perceived organisational support. Four hundred and fifty-nine officers gave answers to the first question, *In what ways do you think the police organisation demonstrates a lack of support for its officers?*, and 9 response categories were generated (Table 5.3).

From this table it is can be seen that by far the most frequently cited issue was a lack of support from senior officers in public (Category 1; $\underline{n} = 203$). Specifically, the officers felt that the organisation did not provide high profile support for them in situations where "false" or "petty" allegations were brought against an officer by a member of the public. The next most frequently cited categories suggested that the officers felt that the organisation did not provide adequate recognition of individual

Table 5.3

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Question: In what ways do you think that the police organisation demonstrates a lack of support for its officers? ($n_{junior} = 297$; $n_{senior} = 162$).

Category	Observed (Expected) Frequency Junior	Senior	Chi^2	sig
1. Does not support officers in public arena	145(131.3)	58 (71.7)	7.21	ns
2. Does not have confidence in officers, nor give feedback	45 (43.3)	22 (23.7)	0.22	ns
3. Does not involve officers in decision-making processes	27 (41.4)	37 (22.6)	16.48	p<.001
4. Does not ensure good management	16 (28.5)	28 (15.5)	17.21	p<.001
5. Does not provide adequate working conditions	28 (25.2)	11 (13.8)	0.96	ns
6. Through a bad promotional system	15 (22.0)	19 (12.0)	6.82	p<.01
7. Lacks empathy for individual officers or families	16 (20.7)	16 (11.3)	3.25	ns
8. Problems with policy and procedures not addressed	18 (17.5)	9 (9.5)	0.04	ns
9. Other (Specific to individuals, e.g., unable to job share)	78 (78.3)	43 (42.7)	0.00	ns
Total (number of response units)	388	243		

performance (Category 2; n = 67) or experience (Category 3; n = 64). Officers also reported a lack of support from the organisation in the areas of management (Category 4; n = 44), working conditions (Category 5; n = 39), the promotional system (Category 6; n = 34), dealings with individual officers and their families (i.e., empathy, Category 7; n = 32), and policy and procedures (Category 8; n = 27).

Significant differences between the senior and junior officers were found for three categories. For each of these, the number of supervisors who included these suggestions in their responses was significantly higher than expected from the composition of the respondent sample. The experienced officers' responses appeared to be influenced by their length of experience with dysfunctional elements of the police organisation. Specifically, they reported that the organisation demonstrated a lack of support by restricting officer participation in decision-making (Category 3), by not providing adequate managers and management (Category 4), by implementing a poor promotional system, and by employing an inadequate and inequitable promotional system (Category 7).

Three hundred and ninety-six officers gave answers to the second question, *In what ways does the organisation demonstrate support?*. Four response categories were generated (Table 5.4).

Table 5.4

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Question: In what ways does the organisation demonstrate support? (n_{junior} = 249; n_{senior} = 147).

	Observed (Expected) Frequency			
Category	Junior	Senior	Chi^2	sig
1. It doesn't	139 (138.4)	81 (81.6)	0.02	ns
2. Welfare-type programs	46 (50.9)	35 (30.1)	1.60	ns
3. Awards and citations	12 (13.2)	9 (7.8)	0.31	ns
4. Other	68 (66.0)	37 (39.0)	0.22	ns
Total (number of response units)	265	162		

This table shows that 220 of the 396 officers responded to the question by saying that the organisation does not support its members. The remaining 176 respondents provided 207 examples of the ways in which support was demonstrated. Forty-six percent of these 176 officers (n = 81) noted that the official welfare-type programs (e.g., police chaplains, the psychology section, peer support officers, and trauma counselling) were indications of organisational support for officers. In addition, 21 (12%) reported that awards and citations demonstrated organisational support. There were no significant differences in response frequencies for this question.

Finally, three hundred and eighty-four officers gave answers to the third question, *How could the organisation better demonstrate support for its members?*, and 10 response categories were generated (Table 5.5).

Table 5.5

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Question: How could the organisation better demonstrate support for its members? ($n_{junior} = 242$; $n_{senior} = 142$).

Category	Observed (Expected) Frequency		
	Junior	Senior	Chi^2 sig
1. Provide more support for officers in public	85 (82.5)	46 (48.5)	0.30 ns
2. Involve officers in decision-making processes	59 (65.5)	45 (38.5)	2.41 ns
3. Demonstrate confidence in officers, and provide feedback	69 (61.1)	28 (35.9)	3.67 ns
4. Improve working conditions	31 (30.2)	17 (17.8)	0.06 ns
5. Stand up against government interference	18 (23.9)	20 (14.1)	4.37 p<.05
6. Improve management attitudes and performance	12 (20.8)	21 (12.2)	11.04 p<.001
7. Improve the promotional system	14 (18.9)	16 (11.1)	3.74 ns
8. Improve career development and incentive programs	16 (18.9)	14 (11.1)	1.31 ns
9. Improve pay and pay-for-performance system	16 (16.4)	10 (9.6)	0.03 ns
10. Other	48 (45.4)	24 (26.6)	0.50 ns
Total (number of response units)	368	241	

The most frequent response from the officers indicates that support from the organisation equates to support from senior management, especially in the public arena (Category 1, $n = 131$). A substantial number of the officers also suggested that support would be demonstrated if management allowed rank and file participation in decision-making (Category 2, $n = 104$) and recognised their performance by providing feedback or reinforcement (Category 3; $n = 97$). Other mechanisms through which management could demonstrate support for officers include improving working conditions (Category 4; $n = 50$), challenging government interference with laws and police procedures (Category 5; $n = 38$), improving the attitudes and performance of managers (Category 6; $n = 33$), rectifying the promotional system (Category 7; $n = 30$), enhancing career development and incentive programs (Category 8; $n = 30$), and improving pay and pay rate systems (Category 9; $n = 26$).

Significant differences between the junior and senior officers were found for two categories. As with the previous questions, the number of more experienced officers who

included these suggestions in their responses was significantly higher than expected from the composition of the respondent sample. Also consistent with previous responses, the senior officers identified issues related to management and organisational policies. Specifically, the more experienced officers suggested that police management should act to minimise the influence of government interference in policing (Category 5) and to improve managerial performance (Category 6).

Overall, the responses to these questions about organisational support are characterised by a feeling that support is limited. Furthermore, the problem is primarily managerial. In other words, the majority of the responses, and particularly those of the experienced officers, suggest that improvements are the responsibility of management, and that there is a need to modify, improve or eliminate a range of organisational structures or processes. One of the processes that seems to be attracting the most concern is that of communication and feedback within the organisation.

(iii) <u>The Provision of Feedback in the Organisation</u>

The questions about feedback addressed two issues: actual feedback and desired feedback. Actual feedback was assessed by two questions: *From whom do you currently receive feedback about your performance?*; and *What form does this feedback usually take?*

Five hundred and fifty-one officers gave responses to the first question and six response categories were generated. Four hundred and sixty-five officers gave responses to the second question, with their answers falling into three response categories. Responses to both questions are given in Table 5.6.

In relation to the source of feedback, the results in this table suggest that many of the officers (Category 1; n = 311) are receiving feedback from their immediate supervisor. However, a further breakdown of their answers found that 108 of the 311 officers made comments like "No-one, unless it's being told-off by my supervisor", suggesting that they feel that the only feedback they get is negative. Although 161 officers reported that they get feedback from senior officers (i.e., those of ranks above that of their immediate supervisor; Category 2), a similar number reported that they get feedback from "no-one"

Table 5.6

Frequencies and Chi² Analyses of the Difference Between Junior and Senior Officer Responses to the Questions Assessing the Present Feedback Situation.

Category	Observed (Expected) Frequency Junior	Senior	Chi^2 sig
From whom do you currently receive feedback about your performance? (n_{junior} = 364; n_{senior} = 187)			
1. Immediate supervisor	214 (205.6)	97 (105.4)	2.39 ns
2. Senior officers	111 (106.4)	50 (54.6)	2.56 ns
3. No-one	100 (105.8)	60 (54.2)	1.28 ns
4. Peers	104 (89.9)	32 (46.1)	8.72 p<.01
5. Members of the public	21 (19.8)	9 (10.2)	0.15 ns
6. Others (e.g., family, subordinates)	27 (36.4)	28 (18.6)	7.92 p<.01
What form does this feedback usually take? (n_{junior} = 312; n_{senior} = 153)			
1. Verbal	300 (299.3)	146 (146.7)	0.12 ns
2. Written	70 (75.2)	42 (36.8)	1.43 ns
3. Other	2	0	na

(Category 3; n = 160).

Significant differences between senior and junior officers occurred in two categories. For one of these, more of the junior officers responded that they receive feedback from their peers. This may simply reflect the fact that there is less opportunity for the peers of the more experienced officers to know what they are doing (i.e., the activities of the positions in which these officers are incumbent do not allow sufficient interaction between peers for them to provide feedback to each other). On the other hand, less experienced officers tend to spend the majority of their time in the company of at least one "peer", and consequently are more likely to receive feedback from that peer group member. For the other significant difference, more of the senior officers stated that they receive feedback from "others" (e.g., subordinates and family). This supports the idea that feedback is received from individuals with whom one has sufficient interaction to make feedback a likely outcome. Alternatively, the differences may reflect the desired

feedback position. In other words, an officer receives feedback from the people who have opinions that are important to him or her.

In relation to the form of feedback that the respondents experience, the majority of the respondents reported that they receive verbal feedback only (Category 1; n = 446), with a substantially fewer number reporting that they presently receive written feedback (Category 2; n = 112). The final category (Other) included only two suggestions, and in these responses the feedback took the form of chocolates given to the officers by a grateful member of the public. There were no significant differences in any of the three categories derived from the responses to the question regarding form of feedback. Overall, the results of these two questions indicate that the current feedback situation is perceived to involve, primarily, verbal feedback (usually negative or in response to a mistake) from supervisors and senior officers. However, the junior officers also reported a significant amount of feedback was provided by members of their peer group.

To determine the perceived adequacy of feedback, officers were asked: *Is there anyone else from whom you would like / prefer to get feedback about your performance?*; *Is there anything specific you would like them to give you feedback about?*; and *What form would you like this feedback to take (e.g., written appraisals, verbal reports, etc.)?* Several categories were generated for each question and these are shown in Table 5.7.

The results in Table 5.7 suggest that a majority of the officers would like to receive more feedback about their performance from superior officers (Category 1; n = 264), although 160 (Category 2) do not want feedback from anyone else. For those that do want more feedback, it appears that they would like feedback relating to their performance (Category 1; n = 168 and Category 2; n = 132) or operational issues (Category 3; n = 92), as well as additional career guidance (Category 4, n = 26). The preferred forms of feedback are verbal (Category 1; n = 307) or written (Category 2; n = 251).

Table 5.7

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Questions Assessing the Desired Feedback Situation.

Category	Observed (Expected) Frequency Junior	Senior	Chi^2	sig
Is there anyone else from whom you would like / prefer to get feedback about your performance? (n_{junior} = 305; n_{senior} = 168)				
1. Senior officers (supervisor or above)	172 (170.3)	92 (93.7)	0.12	ns
2. No	102 (103.2)	58 (56.8)	0.06	ns
3. Peers	37 (40.6)	26 (22.4)	1.03	ns
4. Others (e.g., career opportunities)	28 (29.7)	18 (16.3)	0.30	ns
Is there anything specific you would like them to give you feedback about? (n_{junior} = 232; n_{senior} = 116)				
1. General performance (i.e., good or bad)	105 (112.1)	63 (55.9)	2.54	ns
2. Good performance	100 (88.0)	32 (44.0)	7.96	$p<.01$
3. Operational issues	74 (61.4)	18 (30.6)	10.66	$p<.01$
4. Career guidance	12 (12.7)	7 (6.3)	0.12	ns
5. Other (e.g., changes in policy or procedures)	20 (27.3)	21 (13.7)	6.70	$p<.01$
What form would you like this feedback to take (e.g., written appraisals, verbal reports, etc.)? (n_{junior} = 260; n_{senior} = 132)				
1. Verbal	201 (203.5)	106 (103.5)	0.45	ns
2. Written	171 (166.4)	80 (84.6)	1.02	ns
3. Other (e.g., gifts)	6 (4.6)	1 (2.4)	1.26	ns

Significant differences between the senior and junior groups of officers were found only for the question addressing the content of desired feedback. Specifically, the less experienced officers want more recognition of their good performance (Category 2) and more information about various operational issues (i.e., clearer procedure and policy statements, Category 3). On the other hand, the more experienced officers want more information about other things, such as the reasons for changes in policy and procedures (Category 5).

The final question relating to feedback was: *What sources provide you with information about organisational procedures or processes (e.g., changes in procedures, promotional opportunities, general information)?* Five hundred and fourteen officers responded to this question, with four categories generated (Table 5.8).

Table 5.8

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Question: What sources provide you with information about *organisational procedures or processes* (e.g., changes in procedures, promotional opportunities, general information)?(n_{junior} = 337; n_{senior} = 177)

Category	Observed (Expected) Frequency		
	Junior	Senior	Chi^2 sig
1. Departmental communication (e.g., journals, computer mail)	324 (326.0)	173 (171.0)	0.88 ns
2. Peers	70 (66.9)	32 (35.1)	0.53 ns
3. Supervisor	29 (23.0)	6 (12.0)	4.92 p<.05
4. Other (e.g., newspapers)	13 (15.7)	11 (8.3)	1.38 ns
Total (number of response units)	436	222	

Of the 514 officers that responded to this question 497 (97%) reported that they obtained information about organisational procedures and processes from Departmental communications (Category 1). These incorporated a wide range of materials. However, many officers also reported that they get information about organisational issues from their peers (Category 2; n = 102) and their supervisors (Category 3; n = 35). Only one significant difference was found between the senior and junior officer groups. Specifically, more of the junior officers receive information about organisational procedures and processes from their supervisors (Category 3).

Overall, performance feedback is described as limited and primarily punitive; used by supervisors to correct individual officers' actions. Information regarding changes to operational processes and procedures is gleaned from official organisational communications, such as newsletters and electronic messages, although the less experienced officers also get information of this type from their supervisors. In contrast, most of the officers would like to receive substantially more verbal feedback from senior officers (supervisor or higher ranks) about their performance, and are prepared to accept corrective, as well as positive, feedback. The less experienced officers would like to receive more information about the content of operational changes, whereas the more

experienced officers would like more information about the reasons for changes to procedures. In summary, the responses to these questions indicate that there is a problem with communication within the police organisation. This problem is magnified when the relationship between commitment and communication (i.e., role ambiguity and perceived organisational support associated with positive feedback and involvement in decision-making) revealed in the cross-sequential data set is considered.

(iv) Enhancing Investments in the Organisation

The respondents were asked to comment on three proposed mechanisms for improving morale. These were: requiring that applicants obtain some form of external qualifications prior to entry; the development of defined career paths within patrol duties; and the implementation of career development programs. Overall, the response rates to these questions were very low (n = 203; n = 109; and n = 88 respectively). Responses are summarized in Table 5.9.

Table 5.9

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Comments About Proposed Mechanisms For Enhancing Morale.

Category	Observed (Expected) Frequency			
	Junior	Senior	Chi^2	sig
Requirement that recruits have external qualifications (n_{junior} = 140; n_{senior} = 63)				
1. Unnecessary	58 (63.5)	34 (28.5)	2.77	ns
2. Bad suggestion	33 (31.7)	13 (14.3)	0.22	ns
3. Good suggestion	24 (20.0)	5 (9.0)	3.03	ns
4. Other (e.g.,the organisation is not interested)	20 (21.4)	11 (9.6)	0.34	ns
Development of defined career paths within patrol duties (n_{junior} = 70; n_{senior} = 39)				
1. Good suggestion	45 (44.9)	25 (25.1)	0.29	ns
2. The organisation would not implement this	4 (3.9)	2 (2.1)	0.00	ns
3. Other (e.g., bad suggestion, other alternatives)	16 (18.0)	12 (10.0)	1.33	ns
Implementation of career development programs (n_{junior} = 57; n_{senior} = 31)				
1. Good suggestion	30 (32.4)	20 (17.6)	1.17	ns
2. Bad suggestion	7 (5.8)	2 (3.2)	0.78	ns
3. The organisation would not implement this	5 (4.5)	2 (2.5)	0.17	ns
4. Other (e.g., there is already too much study)	9 (10.4)	7 (5.6)	0.49	ns

Despite the low response rate, the results do give an indication of some trends in the responses. First, of the officers who commented about external qualifications as an entry requirement (n = 203), the most frequent response was that, although not necessarily a bad idea, external qualifications were “unnecessary” (Category 1; n = 92). A majority of these respondents (n = 62) believed that “external qualifications don’t make good police officers; common-sense makes good police officers”. Another 10 officers suggested that the department should only accept older applicants who had some life-experience and could deal more effectively with people in conflict situations.

Of the officers who commented on the possibility of introducing career paths within general duties (n = 109), the majority reported that this was a good suggestion (Category 1; n = 70). Similarly, 50 of the 82 responses to the suggestion that more career development programs should be introduced were positive (Category 1). Overall, however, the responses to these questions lacked enthusiasm. This may not be surprising given the number of officers who responded that the ideas were good, but that the organisation would not be prepared to finance or otherwise implement the suggestions. In fact, this may reflect the previously demonstrated concern of the officers that the organisation is not prepared to support individual employees.

Four hundred and ninety-seven officers responded to the question *What problems or issues might cause you to leave the police department?*, and 11 categories were generated (Table 5.10). Overall, the results in Table 5.10 indicate that most officers would leave if there was a better option available (Category 1; n = 138), or if they believed that their promotional opportunities were limited (Category 2; n = 135). Among the other factors contributing to the decision to leave were dissatisfaction with management because of inept managers / supervisors (Category 3; n = 106), poor working conditions (Category 4; n = 97), being forced to transfer to another posting (Category 6; n = 86), dismissal or investigation by Internal Investigations (Category 7; n = 61), or decreasing police powers because of government intervention (Category 8; n = 57). Other officers would leave if they felt that job satisfaction was lacking (Category 5; n = 95), if

Table 5.10

Frequencies and Chi^2 Analyses of the Difference Between Junior and Senior Officer Responses to the Question: What problems or issues might cause you to leave the police department? ($n_{junior} = 327$; $n_{senior} = 170$)

Category	Observed (Expected) Frequency		
	Junior	Senior	Chi^2 sig
1. Better options available	93 (90.8)	45 (47.2)	0.22 ns
2. Lack of promotion / dissatisfaction with promotion system	82 (88.8)	53 (46.2)	2.09 ns
3. Inept or unsatisfactory management or supervisor	72 (69.7)	34 (36.3)	0.28 ns
4. Problems with working / employment conditions	70 (63.8)	27 (33.2)	2.19 ns
5. Lack of job satisfaction or decrease in morale	64 (62.5)	31 (32.5)	0.13 ns
6. Forced transfer	45 (56.6)	41 (29.4)	8.41 p<.01
7. Dismissal or investigation by IID of false allegation	51 (40.1)	10 (20.9)	9.86 p<.01
8. Government decreases police powers	30 (37.5)	27 (19.5)	4.93 p<.05
9. Health problems (e.g., stress or injured on duty)	24 (28.3)	19 (14.7)	2.09 ns
10. Family issues	29 (25.7)	10 (13.3)	1.35 ns
11. Other	35 (30.9)	12 (16.1)	1.75 ns
Total (number of response units)	595	309	

their health was affected (Category 9; n = 43), or for various family issues (Category 10; n = 39).

Significant differences between the senior and junior officer groups were found for three categories. Responses in the dismissal / internal investigation category (Category 7) were more likely to come from junior officers than from senior officers. Conversely, the more experienced officers were more likely to leave if forced to transfer from their present position (Category 6) or if there was significant government interference leading to a reduction in police powers, which they felt made it harder to successfully conduct their work (Category 8). Overall, the problems identified by the officers as reasons for them to leave the organisation can be viewed in terms of investments. In other words, the officers identified the things that they would need to gain (e.g., better pay or working conditions), or that they had lost (e.g., opportunity for promotion or job satisfaction), as causes for

leaving the police organisation. It is interesting to note that extrinsic investments (e.g., pay and promotion) were of more importance than intrinsic investments (e.g., job satisfaction). This distinction may help to explain the reason that affective organisational commitment was found to have stronger links to perceived organisational support than to investments (see Table 4.7 and 4.13). Furthermore, it is consistent with the contention of Allen and Meyer (1990b) that affective commitment results from positive experiences of the organisation, whereas investments are antecedents of continuance commitment (i.e., a commitment to remain in the organisation).

4. Conclusion

The aim of this study was to validate the relationships between organisational commitment and the three major factors found to be linked to affective commitment in the previous chapter (i.e., perceived organisational support, investments, and role ambiguity). This validation was conducted using content analysis of open-ended questions, allowing the respondents complete freedom with their answers and thereby tapping into the issues that were most salient to each individual. Furthermore, comparisons between two groups of officers, based on their length of tenure, allowed an examination of responses that may reflect developmental differences.

The results provided considerable support for the relationships between organisational commitment and the three factors. In response to unprompted, open-ended questions, the respondents suggested that commitment could be improved if management demonstrated support for their officers through the provision of recognition, feedback and rewards. Furthermore, the respondents highlighted the fact that, in the existing circumstances, support, recognition and feedback are limited. In other words, there is room for improvement in each of these areas within the present police organisation.

It is interesting to note that the focus of the majority of the complaints and suggestions for improvement was “management”. This is consistent with the theory that commitment to the organisation is equivalent to commitment to management (Reichers,

1986), and consistent with the findings of a number of empirical studies that have reported relationships between the two commitments (Gregersen, 1993; Niehoff et al., 1990; Reichers, 1986).

The data also indicate that perceptions that management are supportive of, and value the contribution of, their officers became more important as experience increased. In other words, the more experienced group of officers were more likely to provide responses critical of management. The possibility arises that experience provides more information about managerial methods; information from which attitudes are developed. This is consistent with Irving and Meyer's (1994) conclusion that it takes time and experience of an organisation for an employee to develop opinions about the organisation. If this is the case, then there is a definite need for managers to ensure that they provide positive experiences for their longer-tenured employees. The results of the present study suggest that, in police organisations, these experiences must include higher levels of support (especially in high profile cases of accusations against police), more recognition of experience (in the form of involvement in decision-making), more positive feedback about good performance, and more efficient and equitable promotional systems. Provision of these experiences is likely to result in higher levels of affective commitment to the organisation in more experienced officers. Enhancing the commitment of experienced officers has the additional attraction of reducing the negative attitudinal environment that surrounds less experienced officers, and may help to reduce the decrease in the commitment levels of these officers.

In conclusion, a major finding of both the quantitative and qualitative results is that there is a significant impact of experience of the organisation on the development of affective organisational commitment. The data suggest that the attitudes of police officers change with tenure. However, the data do not describe the development of organisational commitment resulting from the earliest experience of police training. A study designed to address this issue is reported in the next chapter.

Chapter 6

The Development of Organisational Commitment Across Formal Training and Early Probationary Experience

1. Introduction

The results reported in the previous chapter indicate that, among experienced police officers in Australia, the norm for organisational commitment is low. In addition, there is a tendency for the commitment levels of officers to decrease as the officer attains increased experience with formal and informal aspects of the organisation. However, the design of the cross-sequential study was deficient in that the data did not show the levels of commitment held by these officers at the very beginning of their police careers nor the factors responsible for initial levels of commitment. Many authors have suggested that the first few months of employment are critical to the development of organisational commitment (Allen & Meyer, 1990a; Lee et al., 1992; Meyer et al., 1991; Van Maanen & Schein, 1979; Wanous, Poland, Premack, & Davis, 1992). In view of this, a study of the earliest organisational experiences of police recruits, focussing on the influences of the selection process, academy training and field training is critical to understanding the initial large scale falls in organisational commitment. These three aspects of recruitment characterise the early experiences of most officers in most police organisations around the world.

(i) The Influence of the Selection Process

Managers seek to employ people who will perform well. People seek organisations that they think will provide an environment in which they can fulfil their potential and be adequately rewarded for doing so. A number of mechanisms may be involved in the processes that lead to an individual making a decision to enter a specific organisation, and each of the mechanisms may influence individual levels of organisational commitment at the time of entry.

(a) Pre-entry commitment propensity. In their model of the development of organisational commitment, Mowday et al. (1982) proposed that the degree to which an

individual was likely to be committed to the employing organisation would be dependent on three factors: personal characteristics (including a strong desire to join a specific organisation, familiarity with the core values of the organisation, self-efficacy and self-confidence), expectations (where individuals with higher expectations are more likely to interpret positively any experiences they have), and choice factors (suggesting that individuals who commit to a certain choice, especially where that choice involves a degree of volition and sacrifice of alternatives, are more likely to be affectively committed to the organisation in the future).

To test this theory, Lee et al. (1992) conducted a longitudinal study of the effect of "commitment propensity" (a summary index of personal characteristics, expectations and choice factors that impact an individual's decision to join an organisation) on the subsequent development of affective organisational commitment in a large sample of air force recruits ($\underline{n}$ = 840). This study is important to the present thesis for two reasons. First, it examined the influence of pre-entry factors on subsequent individual levels of organisational commitment. Second, it is one of the few studies that reports organisational commitment levels in a training setting that is comparable to those used to train police recruits. According to Lee and his colleagues, the recruits were subjected to a rigorous selection process (with a 20% selection rate), and then entered a training environment that was "competitive, physically and mentally challenging, and unrelenting" (p. 20).

Commitment propensity (measured prior to entry) was found to correlate significantly with organisational commitment in all but one of six subsequent surveys (taken at different times across training). This suggested that the influence of commitment propensity was relatively long-lasting and stable and, notwithstanding the aberrative result, these results were consistent with Mowday et al.'s (1982) prediction that pre-entry factors would influence subsequent levels of organisational commitment.

Furthermore, Lee et al. (1992) described a developmental "pattern" where the commitment levels of the cadets increased during two weeks of basic training, decreased

over the first year of academy work, and then increased at the beginning of the second year at the academy. Lee et al. reported that these differences were all significant. Unfortunately, they used unrelated t-test analyses (evidenced by the different sample sizes across the times of measurement, see Table 1 on p.24 of their article), rather than a repeated measures analysis of variance which would have shown intraindividual changes across time.

To test Mowday et al.'s (1982) hypothesis that individuals with high levels of commitment propensity would be more likely to view the organisation in a positive manner, with subsequent implications for the manner in which their commitment develops, Lee et al. (1992) split the sample on the basis of commitment propensity (i.e., into high or low commitment propensity groups). They found that the "pattern" reported for the development of commitment was consistent (i.e., showed the same pattern of increases and decreases) across the two groups, suggesting that both groups responded to the environment in similar ways. This was somewhat contrary to theory; that individuals with low levels of commitment propensity would view the environment less positively, and be less influenced by the environment, than individuals with higher levels of commitment propensity. However, it is possible that this particular effect was mitigated by the rigorous selection process, which was likely to have excluded any applicant with really low levels of commitment propensity.[25]

Two additional criticisms can be made of this study. The first lies in the absence of a theoretical basis for the selection of times of measurement. Apart from the first two times (i.e., at the commencement and conclusion of basic training), the times at which the data were collected do not appear to coincide with any critical incidents in the later stages of the recruits' training (e.g., periods of practical training or changes in course structure). Therefore, although the data provided a description of the development, there

---

[25] Lee et al. (1992) do not report the commitment propensity means and standard deviations for the two groups. However, the standard deviation for overall commitment propensity was 0.32, with a mean of 0.00 and a range of -1.00 to 1.00 (i.e., the scaled scores were standardised). This standard deviation is not large, supporting the contention that overall the commitment propensity scores were restricted.

is no attempt to make causal inferences about the factors that were responsible for changes during this development. Second, commitment data were not collected subsequent to the recruits becoming operational members of the organisation, and therefore the authors were unable to describe the changes in commitment that might occur as a result of experience in the real organisation. Overall, however, this study provides good cross-sectional evidence for the existence of a developmental trend across formal academy training in a single organisation for which large numbers of recruits (of approximately the same age, and not necessarily university graduates) are selected and then subjected to a strong, institutional socialisation process. Furthermore, there is additional evidence that commitment propensity is influential in the development of organisational commitment.

Meyer et al. (1991) reported a study examining the relationship between organisational commitment and job choice characteristics (volition, irrevocability [cf. Lee et al.'s sacrifice], and importance of the decision). They found that the only significant correlations were positive correlations between post-entry levels of organisational commitment (after 1, 6 and 11 months of employment; $\underline{n}$ = 157) and pre-entry volition ($\underline{r}$ = .22, .28 and .27 respectively), so that individuals who reported prior to entry that they felt a higher degree of volition was involved in their decision to join the organisation had higher levels of post-entry commitment. In other words, these results provide evidence that at least one facet of the choice characteristic has an impact of future levels of organisational commitment.

(b) Work ethic. Studies have reported correlational evidence for a relationship between organisational commitment and pre-entry factors other than commitment propensity. In their meta-analysis, Mathieu and Zajac (1990) reported a significant, positive correlation between organisational commitment and the Protestant Work ethic (i.e., the degree to which work is a central life interest; $\underline{r}_{corrected}$ = .29). This results shows that, across the seven studies included in the analysis, individuals with higher levels of Protestant Work ethic also have higher levels of organisational commitment.

(c) Pre-entry expectations. Finally, Irving and Meyer (1994) reported significant positive correlations between affective organisational commitment levels at 6 and 12 months and pre-entry expectations of reward (r = .28 and .31 respectively) and responsibility (r = .18 and .28 respectively) for a sample of 257 university graduates. These results show that individuals who have higher pre-entry expectations of the organisation are more likely to report higher levels of organisational commitment after entry.

To summarise, the results of these studies provide some evidence that commitment propensity, work ethic and pre-entry expectations are important pre-entry factors in the development of organisational commitment.

(ii) The Experience of Training: Socialisation Effects

Socialisation is described as the transference of norms, beliefs, values and skills to newcomers and is supposed to influence the affective responses of these individuals. Van Maanen and Schein (1979) described six dimensions along which socialisation tactics vary: collective versus individual; formal versus informal; fixed versus variable; sequential versus random; investituture versus divestiture; and serial versus disjunctive (see Chapter 2, p. 28). Although the actual tactics employed by organisations may be distributed differently along each of these six dimensions, some researchers have labelled the extremes institutional (i.e., tactics that tend to treat people as groups) and individual (i.e., tactics that tend to treat people as individuals) (see Allen & Meyer, 1990a).

Theory and research suggest that institutional tactics are more likely than individualised tactics to enhance newcomers' levels of organisational commitment. Allen and Meyer (1990a) collected longitudinal questionnaire measures from graduates of business programs 6 and 12 months after the individuals began employment, for the purpose of determining how organisations could select socialisation experiences that would maximise affective organisational commitment. They found that socialisation tactics that reflected an institutionalised structure (i.e., collective, formal, fixed, sequential, investiture, and serial) were correlated positively with commitment at the

same time of measurement (i.e., 6 months), but only one tactic (investiture) was correlated with the later (12 month) measure of commitment. They suggested that use of institutional socialisation tactics reduces role ambiguity for newcomers, thereby impacting on their level of organisational commitment. Furthermore, they argued that, as the newcomers became more familiar with, and competent in, their roles, factors other than those assessed in the study were responsible for shaping commitment. Allen and Meyer did not report repeated measures analyses of the levels of organisational commitment; their analyses were correlational. Therefore, no conclusions on causality, relating commitment levels to different socialisation tactics, can be drawn. Their subjects were employees of many different organisations (which allowed them a range of scores on each of the six dimensions) further confounding causal inferences. However, their results suggest that different forms of socialisation have different effects on the early development of organisational commitment.

Although there is yet to be a study describing the socialisation tactics of police organisations, examination of the training curriculum (along with personal descriptions of academy and operational training from police officers) suggests that there are two discrete facets of recruit training. The first is the organisationally-sanctioned academy training, characterised by highly structured, large group classes where all members are treated equally and are told exactly what is required for them to progress to the next stage of training (i.e., institutional socialisation). The second is the informal socialisation that each recruit experiences as a result of field (i.e., operational) experience, characterised by individual assignment to one or more experienced patrol or station officers. The latter experience results in a situation where each recruit is subjected to different working environments and to different types of advice (not necessarily organisationally-sanctioned) about the work environment and the work itself (i.e., individual socialisation). In other words, police recruits are first exposed to institutional socialisation experiences at the police academy, and subsequently to individual socialisation experiences in the field. According to the theory, these newcomers are likely

to maintain high levels of commitment within the structured, well-defined setting of the academy. Specifically, the academy setting is designed to reduce role ambiguity, and to ensure that pre-entry expectations are met, thereby enhancing organisational commitment. However, the recruits should subsequently report decreases in commitment as a result of the less structured and defined setting of field training. Specifically, within the field setting, the recruits are exposed to the "real" organisation, an experience that may be modified by the attitudes, values, beliefs and norms of more experienced officers with whom the recruit comes into contact.

There is some empirical evidence for the influence of socialisation on the organisational commitment of police recruits. Van Maanen's (1975) study of police socialisation was designed to document "changes in the attitudes of police recruits moving through the series of experiences associated with their early careers" (p. 207). He reported that the recruits entered the organisation with high levels of commitment and that there was a significant decrease in commitment across time. The decrease continued across the three months of academy training, and into the six weeks of "apprenticeship", in which they were placed under the guidance of an experienced Field Training Officer. Following this, the recruits' commitment levels increased as they successfully completed training and became "real (albeit rookie) policemen" (p. 210), only to return to levels the same as those during the field training experience after approximately two months on the street. After 30 months (i.e., about 2 years of experience in real police work) their levels of commitment appeared to stabilise. This pattern of decrease across academy training is contrary to what is predicted by the theory. It suggests that the recruits' experience of the academy impacts on their attitudes toward the organisation in a negative manner. Furthermore, the field results are in conflict with the finding of the major study of this thesis; continuous significant decreases across the first two years of work experience. This discrepancy could be explained by cohort differences. In other words, it is highly likely that recruits to an American department over 20 years ago would have experienced significantly different socialisation practices to modern,

Australian recruits. However, perhaps most telling, Van Maanen did not report either cross-sectional or repeated measures analyses (although he reported collecting these data) of the significance of the changes, so there is no evidence that the decreases between the surveys were significant. Like Lee et al. (1992), Van Maanen did not collect data at critical times in the training schedule, thereby limiting the usefulness of the data for establishing causal links between aspects of training and commitment levels. Despite these limitations, Van Maanen's results ~~He suggest that~~, because they are contrary to theory, need to be examined further in a replication. As shown in the previous chapter, it is possible that the modern police occupation provides an exception to general models describing the development of organisational commitment.

More recent work on the socialisation of police recruits during both academy and early operational experience has been reported. Ellis (1991) conducted a cross-sectional study of the attitudes of police recruits in Canada, examining how these attitudes changed over the first two to three years of socialisation into the police culture. Unlike Van Maanen (1975) and Lee et al. (1992), Ellis surveyed his samples at specific critical times: on the first day of their training, during the final week of their academy training, and during the final stages of their probationary experience (i.e., approximately 12 months spent as an operational, rookie police officer). Although he did not measure commitment, Ellis was interested in determining what the recruits and officers thought about their role (i.e., community oriented versus crime fighting) and about alienation from the community (i.e., an "us-versus-them" mentality). He reported that their attitudes began to change even at the academy (cf. Van Maanen, 1975), with recruits' attitudes gradually becoming less community-oriented and more cynical. During their probationary experience, the newcomers' attitudes reverted to their original levels, levels that reflected those of more experienced officers. Ellis' study stands as the only one that has attempted to dissect the influences of different critical change periods during socialisation. In summary, he agrees with Van Maanen when he suggests that socialisation influences are acting on the attitudes of recruits from the first day that they

enter the academy. Furthermore, although he does not identify the specific factors, his results indicate that different factors impact on the development of work-related attitudes of police recruits during academy training and early operational experience.

(iii) <u>The Experience of Training: Un-met Expectations</u>

The form that socialisation takes may influence directly the development of organisational commitment. Specifically, the socialisation process could be viewed as a series of experiences through which each recruit gains information about the job, work role and organisational climate. Unlike pre-entry when the recruit is often reliant on other sources of information, he or she now has first-hand knowledge which can be compared with their pre-entry expectations. Wanous (1976) predicted that if experience corresponded to expectations, people would be more likely to be affectively and behaviourally positive about the organisation. To test this theory, he conducted a longitudinal study that examined changes that occurred in the expectations of newly recruited telephone operators following experience in the organisation (Wanous, 1976). Using repeated measures analyses of variance, he reported a significant decrease in expectations regarding intrinsic aspects of the organisation (e.g., co-worker relationships) one month after entry, concurrent with a significant increase in expectations regarding extrinsic aspects of the organisation (e.g., working hours). The lower levels of intrinsic expectations remained when further measures were collected two months subsequently, suggesting that areas in which exact information is difficult to provide are more likely to be the target of incorrect expectations. On the other hand, after two months the level of extrinsic expectations returned to pre-entry levels, suggesting that expectations continued to change even for aspects of the work and the organisation that are easily defined. Concentrating on absolute levels of expectations, Wanous was more interested in how expectations changed than in how experience fulfilled (or not) these expectations. Therefore, he did not attempt to identify the factors that resulted in the reported changes in expectations. However, he did suggest that more intense immersion, operationalised as time spent on the job in the company of experienced organisational members, would

increase the likelihood of changes occurring. It is interesting to note that these results were obtained despite the fact that there was almost a 50% turnover rate for the original sample. It is possible that, had they remained, the "leavers" may have made the decrease in expectations of intrinsic aspects even more pronounced. Although these results do not relate specifically to organisational commitment, they are evidence that expectations, and changes in expectations with experience, influence the organisational attitudes of newcomers.

There have been a number of studies that have examined the direct influence of met- (and unmet-) expectations on individual levels of organisational commitment. Wanous et al. (1992) conducted an extensive meta-analysis of the research surrounding met-expectations. They found that across 15 studies there was a significant mean corrected correlation between met-expectations and affective organisational commitment of 0.33, concluding that the degree to which experience fulfilled expectations was critical to the development of organisational commitment. Wanous and his colleagues further pointed out difficulties associated with the interpretation of these data, namely that no researchers had examined the influence of over- versus under-fulfilment of expectations on organisational commitment.

Dean, Ferris, and Konstans (1988) also examined the influence of met-expectations, called "occupational reality shock", on individual levels of organisational commitment. They calculated difference scores (i.e., between pre-entry expectations and post-entry experiences) for a range of aspects of the job content characteristics (i.e., job characteristics) and affective responses to work (i.e., satisfaction with various aspects of the work and organisation). Their results indicated that there were significant discrepancies between what the respondents expected and what they experienced in both aspects of the organisation. Furthermore, using partial correlations, they found that un-met expectations resulted in diminished organisational commitment but exceeded expectations did not result in improved organisational commitment. Although the authors did not report the relationships between expectations and experience and

organisational commitment, these findings confirmed the validity of Wanous et al.'s (1992) contention that under- and over-fulfilment of expectations should be examined separately in any study of the factors determining the development of organisational commitment.

(iv) Conclusion

In summarising the preceding discussion, it is important to point out that the factors influencing the early development of organisational commitment have received relatively little empirical research. When they have been studied, few researchers have used the appropriate repeated-measures, longitudinal methodologies. The evidence to date suggests that commitment propensity, work ethic and pre-entry expectations will influence the very earliest levels of newcomer commitment. However, on entry into the organisation, actual experiences will become more important than expectations. Experiences may be linked to the specific socialisation tactics used by the organisation, or may be gleaned by the newcomer on a more informal basis. In either case, the original levels of organisational commitment should be modified by experiences with, and in, the organisation, the work situation and the actual work. Furthermore, the degree to which the actual experiences of the newcomers change and fulfil or under-fulfil their pre-entry expectations may influence changes in individual levels of organisational commitment.

Having demonstrated in a previous chapter that experience of the police organisation has a detrimental effect on the commitment levels of experienced officers, it was important for the present study to identify when and how the reported decrease begins. Furthermore, given that newcomers to the police organisation are, to some degree, informally trained by experienced -- and probably therefore less committed -- officers, it was important to determine whether this "norm" has an effect on newcomers' commitment levels. In addition, the police recruitment structure lends itself to a longitudinal assessment of critical periods of early employment. Specifically, police organisations collect together a group of recruits who undergo an extensive selection process, then enter the organisation and attend the academy as a group (i.e., are exposed

to institutional socialisation tactics) and, finally, are assigned separately to field training (i.e., are then exposed to socialisation on an individual basis). Measures taken pre-entry, during early academy experience, immediately prior to and after the recruits' field training, and then at the end of the probationary period encompass all of the critical periods following entry to the organisation. Very few organisations use both forms of socialisation in a manner that enables the researcher to discriminate so easily the influence of each.[26]

2. Method

(i) Participants and Procedure

The study was conducted with a single recruit course (class) of the South Australian Police Department. Twenty applicants were notified by recruiting officers during July 1994 that they had been successful and that they should report to the academy to begin training on the 5th of August, 1994. Their academy training was conducted over approximately 12 months, and included two weeks of field observations (after 13 weeks of academy training) and nine weeks of field training (after 38 weeks at the academy). At the successful conclusion of their training, the new Probationary Officers were sent to police stations where they could obtain experience in general duties patrols, station counter work, and the procedures associated with booking offenders into cells. Of the 20 recruits, 18 completed the course and began probation. One resigned during the study, and the other was held back for further training. The full group

---

[26] It should be noted that "institutional" and "individual" socialisation tactics are gross categorisations. An examination of the research, such as that of Allen and Meyer (1990a), suggests that many researchers have adopted the categorisations as a method of simplifying the description of socialisation processes. The use of these terms in the present study is not meant to restrict the content of each set of socialisation experiences (i.e., academy versus field) to socialisation as a group versus socialisation as an individual. On the contrary, each of the two categories are made up of a range of factors that impact upon the work attitudes of the recruits. For example, the socialisation experience at the academy, nominated in the present study as "institutional" socialisation tactics, includes such issues as interacting predominantly with other police recruits, being treated as a trainee, and learning about policing from a theoretical perspective. On the other hand, the socialisation experience during field training, nominated as "individual" socialisation tactics, includes such issues as interacting predominantly with experienced police officers and the public, being treated as an employee, and learning about policing from a practical perspective.

included 12 males and 8 females and had an average age of 23.25 (SD = 4.19) years.

The participants completed surveys at five times over the study (see Figure 6.1). The survey forms, with a reply-paid envelope addressed to the researcher and a letter about the study, were enclosed in envelopes directed to each participant personally. The first survey (T1) was mailed to their home addresses and was returned prior to the first day of their academy training. The second (immediately prior to 2 weeks of field observations after 13 weeks of academy training: T2), third (immediately prior to 9 weeks of field training after a further 23 weeks of academy training: T3), and fourth (immediately after the field training and prior to graduation: T4) were given to the recruits by the senior constable in charge of their class during classroom lessons. There is a distinction, other than length of time, made between field observations and field training. During the former, recruits observe experienced officers for two weeks. It is essentially a "taste" of "real" policing. During field training, the recruits are expected to undertake and complete tasks related to jobs that they attend with the experienced officers, in order to gain some experience of how to implement the skills that they have been taught at the academy. The amount of responsibility assigned to the recruit is dependent on the experienced officer(s) with whom they work during this period. The fifth survey (T5) was mailed to the officers at their work address at the end of their probationary year. These measurement times were selected to collect data that could be used to assess the impact of critical training incidents.

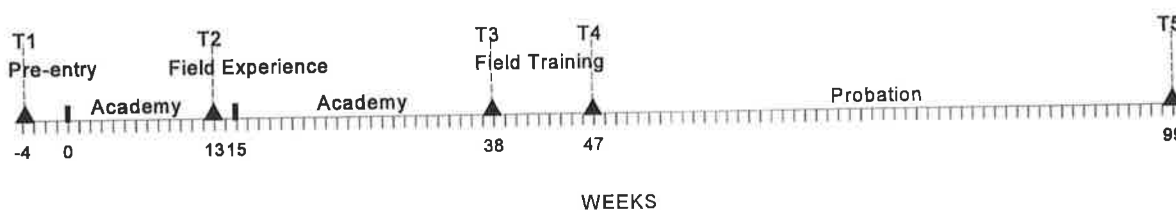


Figure 6.1. Times of assessment and associated critical periods.

(ii) Measures: Pre-entry

The pre-entry survey (T1) included measures of commitment propensity and Protestant Work ethic, as well as measures of expectations about the academy, police work and the police organisation. The original commitment propensity measure was used, although references to the military were modified to refer to the police organisation. Protestant Work ethic was measured using the scale of Kidron (1978).[27]

A measure of expectations about the academy (Expectations of the Academy) was designed for the study. One item for each of five facets of academy training (study time, competitiveness, physical challenge, intellectual challenge, and relevance to real police work) was assessed on a 7-point response format (from 1 = Not much to 7 = A great deal).

The Job Descriptive Survey (JDS: Hackman & Oldham, 1975), as modified by Dean et al. (1988), provided the measure of the recruits' expectations of police work. The JDS has been used frequently in previous research and has been found to have good psychometric properties (Cook et al., 1981).

Finally, the recruits were asked to indicate their expectations of how the police organisation would rate on a modified version of the Met-expectation measure used in Survey 1 with the experienced police officers (see Chapter 4.2.(vii)). One of the items was reworded and separated into two components (i.e., "Type of work" became "Variety of work" and "Difficulty of work"). Each item was scored on a 5-point response scale from 1 = Considerably below average to 5 = Considerably above average. Based on the results of the factor analysis described in Chapter 4, four subscale scores (i.e., Career development, Work conditions; Employment conditions and Work group) were calculated by averaging the item scores.

(iii) Measures: Early Academy Training

The second survey (T2: Early academy training, Pre-field observation) collected baseline measures of organisational commitment (using the OCQ) prior to the recruits'

---

[27] Where not stated otherwise, the measures included in these surveys used the same items and response formats as those used in the major study (refer to Appendix 4.1).

first "real" experience. In addition, the Expectations of the Academy measure was reworded from prospective to retrospective, providing a measure of the recruits' actual experience of the academy (Perceptions of the Academy), to be compared with the recruits' expectations of the academy.

(iv) Measures: Late Academy and Pre-field Training

The third survey (T3: Late academy training, Pre-field training) also included the OCQ and the Perceptions of the Academy measures. This was designed to give an indication of how levels of commitment and perceptions of the academy had changed as a result of academy training. It also provided a second baseline for organisational commitment immediately prior to the more extensive period of field experience.

(v) Measures: Post-field Training

The fourth survey, immediately after nine weeks of field experience and prior to graduation (T4: Post-field training), included the OCQ, a re-modified Met-expectation measure (with the recruits asked to rate their experience rather than expectations) and the original version of the JDS. These data provided evidence for changes in commitment, and in perceptions of the work environment and the job, that resulted from actual experience of the work and the organisation, as well as exposure to experienced officers.

(vi) Measures: End of Probation

The fifth and final survey, administered at the end of the recruits' 12 months probationary period (T5: End of probation), included the OCQ, the re-modified Met-expectations measure, the original JDS, Commitment norm, Peer cohesion, Participation, Communication quality and Information systems, Perceived organisational support, Cynicism, the original Met-expectations measure, Investments, and Understanding of organisational goals. The data from this survey were used to identify any changes in organisational commitment or perceptions of the organisation and the job that resulted from their experiences as "real" police officers. Furthermore, inclusion of measures from the survey administered to the New South Wales sample in 1994 provided a cross-

sectional comparison with the data collected in the cross-sequential study from Cohort 1 (1993) during their probationary year (1994).

A summary of the measures used at each time of measurement, with means, standard deviations and alpha coefficients are shown in Table 6.1.[28] The Cronbach's alphas indicate that the measures with more than two items have, with a few exceptions, moderate to high internal reliability. It is interesting to note that the internal consistency of the least consistent measures strengthened by the end of the study. This is notably true of the measures of commitment and experiences (both work and job experiences) taken at T4 when compared with the measures taken at T5. The strengthening of the internal consistencies would appear to support the contention of Allen and Meyer (1990a) that newcomers to organisations do not yet have adequate experience or information on which to base stable observations of different aspects of the organisation. However, as the recruits' spend more time within the organisation, their experiences become more salient and, consequently, more stable. Despite the apparent lack of consistency in the early responses of the recruits, it is argued that the measures gauge, to some degree, the recruits' opinions and expectations.

3. Results and Discussion

(i) Changes in Organisational Commitment

Eleven recruits provided measures of organisational commitment at all four times of measurement. Graphical representation of the mean organisational commitment scores for each time of measurement is shown in Figure 6.2.

A repeated measures analysis of variance showed that there was a significant main effect for time ($F_{(3,30)} = 4.53$, $p = .01$; refer to Appendix 6.1 for full analysis). Post hoc comparisons revealed a significant difference between commitment immediately prior to field training (T3; $M = 5.94$, $SD = 0.59$) and following this experience (T4; $M = 5.52$, $SD = 0.38$). There were no differences between the surveys taken prior to early academy

---

[28] Factor analyses could not be conducted with this sample, as there was less than 100 subjects, and a subject-to-variable ratio of less than 5 (Bryant & Yarnold, 1995).

Table 6.1
Summary of the Measures Used at Each Sampling Time.

Time of measurement	Measure	Alpha[a]	M	(SD)
1. Pre-entry				
	1. Commitment propensity	.77	0.12	(0.34)
	2. Expectations of the academy:			
	Time spent studying	na	5.65	(1.09)
	Competition	na	5.80	(0.95)
	Physical challenge	na	5.80	(1.15)
	Intellectual challenge	na	5.85	(1.04)
	Relevance to "real world"	na	6.20	(1.06)
	3. Expectations of the police work environment			
	Career development	.58	4.01	(0.52)
	Employment conditions	.30	3.65	(0.55)
	Working conditions	.48	1.95	(0.54)
	Work group	.57	4.08	(0.67)
	4. Expectations of police work (Job)			
	Autonomy	.62	4.50	(1.01)
	Dealing with others	.18	6.65	(0.51)
	Feedback (Job itself)	.23	5.18	(0.73)
	Feedback (Other people)	.79	5.60	(1.20)
	Skill variety	.78	6.08	(0.84)
	Task identity	.41	3.98	(0.87)
	Task significance	.24	6.55	(0.47)
	5. Protestant Work ethic.	.70	4.64	(0.55)
2. Early academy training / Pre-field observations				
	1. OCQ	.76	5.93	(0.60)
	2. Perceptions of the academy:			
	Time spent studying	na	5.53	(1.33)
	Competition	na	4.88	(1.45)
	Physical challenge	na	4.53	(1.55)
	Intellectual challenge	na	5.65	(1.11)
	Relevance to "real world"	na	5.41	(1.33)
3. Late academy training / Pre-field training				
	1. OCQ	.80	5.91	(0.55)
	2. Perceptions of the academy:			
	Time spent studying	na	3.25	(1.69)
	Competition	na	4.31	(1.45)
	Physical challenge	na	3.75	(1.00)
	Intellectual challenge	na	4.81	(1.22)
	Relevance to "real world"	na	5.25	(1.44)
4. Post-field training				
	1. OCQ	.48	5.49	(0.46)
	2. Perceptions of the police work environment			
	Career development	.68	3.00	(0.62)
	Employment conditions	.64	3.07	(0.73)
	Working conditions	.28	2.29	(0.49)
	Work group	.38	3.43	(0.55)
	4. Perceptions of police work (Job)			
	Autonomy	.22	4.64	(0.61)
	Dealing with others	.49	6.19	(0.76)
	Feedback (Job itself)	.31	4.48	(0.68)
	Feedback (Other people)	.65	4.38	(0.87)
	Skill variety	.76	5.83	(0.84)
	Task identity	.16	3.69	(0.81)
	Task significance	.58	5.98	(0.85)

Table 6.1 (continued)

Time of measurement	Measure	Alpha	M	(SD)
5. End of probation				
	1. OCQ	.80	5.27	(0.79)
	2. Perceptions of the police work environment			
	Career development	.67	2.75	(0.64)
	Employment conditions	.63	3.02	(0.74)
	Working conditions	.66	2.72	(0.35)
	Work group	.68	3.57	(0.42)
	3. Perceptions of police work (Job)			
	Autonomy	.60	5.11	(0.85)
	Dealing with others	.27	6.16	(0.82)
	Feedback (Job itself)	.91	4.22	(1.23)
	Feedback (Other people)	.88	4.40	(1.25)
	Skill variety	.76	5.64	(1.16)
	Task identity	.62	4.51	(1.01)
	Task significance	.69	5.98	(0.83)
	4. Commitment norms	.80	5.07	(1.52)
	5. Peer cohesion	.75	5.33	(1.46)
	6. Participation in decision-making	.62	3.53	(1.03)
	7. Communication: Quality	.64	3.38	(0.44)
	8. Info exchange	.75	3.11	(0.69)
	9. Perceived organisational support	.95	4.06	(1.03)
	10. Cynicism: Rules and regulations	.69	1.47	(0.83)
	11. Senior officers	.90	3.47	(1.41)
	12. Legal system	.39	3.13	(1.77)
	13. Citizens	.75	3.33	(1.63)
	14. Confirmed expectations	.87	4.80	(1.52)
	15. Investments	.53	6.44	(1.04)
	16. Understanding organisational goals	na	4.00	(0.76)

[a] Internal consistency reported as Cronbach's alphas.
Note. na = not applicable (single item measures)

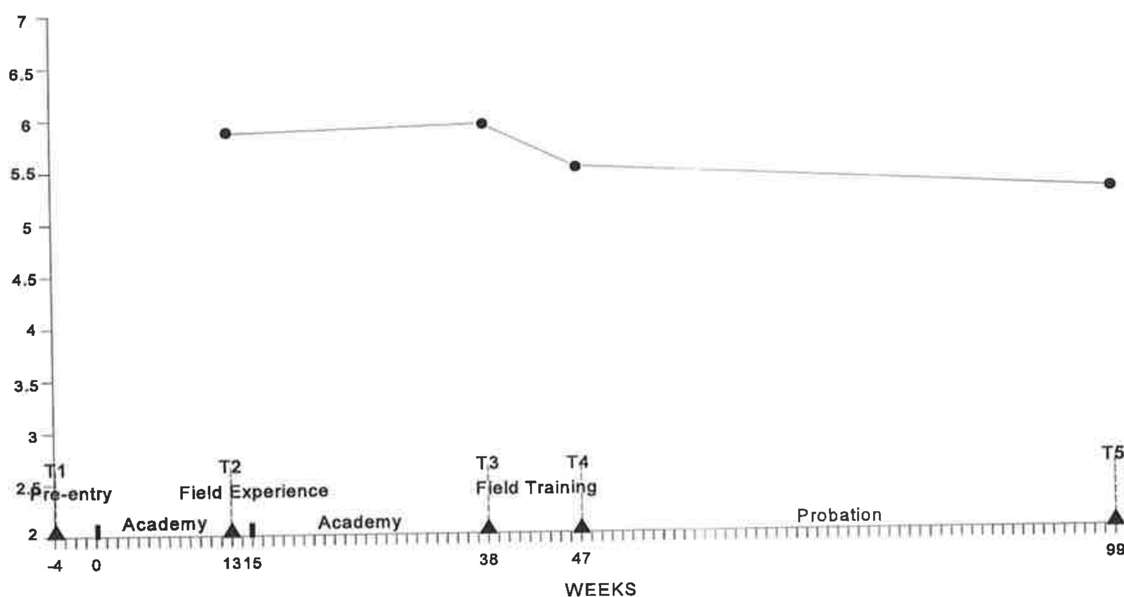


Figure 6.2. Mean levels of organisational commitment across training.

training (T2; M = 5.89, SD = 0.53) and late academy training (T3; M = 5.94, SD = 0.59) nor between the post-field training survey (T4; M = 5.52, SD = 0.38) and the probation survey (T5; M = 5.27, SD = 0.83). This result indicates that changes in commitment levels do not occur as a result of exposure to the academy setting (cf. Ellis, 1991, and Van Maanen, 1975). Furthermore, the recruits' commitment did not appear to have been effected by the two weeks of field observation. However, this contention was not measured directly. It is possible that the commitment levels were effected by this two week period of field observations, but if any change had occurred, the levels returned to initial levels by the end of the subsequent period of academy training (i.e., 23 weeks). Finally, the results suggest that time spent by the recruits in the company of experienced operational officers had a detrimental effect on commitment levels, and that this occurred despite the brevity of the experience (nine weeks). However, the result does not explain what aspect of the recruits' experience during the nine week period of field training was responsible for this effect.

(ii) Factors Associated with Changes in Organisational Commitment

(a) Met- (Unmet-) expectations. The lack of difference in levels of organisational commitment between T2 and T3 (i.e., early and late academy training) and between T4 and T5 (i.e., post-field training and probationary service) suggests that neither academy training nor extended periods of actual experience produced changes in commitment. Of interest is the significant decrease in commitment that occurred between T3 (pre-field training) and T4 (post-field training). The study design suggests that this is a result of exposure to operational policing. One of the theories outlined in the introduction suggest that changes in organisational commitment are caused by un-met expectations in regard to numerous facets of work and the work environment (Wanous, 1976). The facets measured in this study included both the police work environment (i.e., opportunities for career development, employment conditions, work conditions and cohesion of the work group) and job characteristics (i.e., autonomy, dealing with others, feedback from the job, feedback from other people, skill variety, task identity, and task significance).

A number of issues relevant to this analysis were discussed in Wanous et al.'s (1992) review of the met-expectations literature. First, since the concept of met-expectations incorporates both expectations held by job candidates and their subsequent post-entry experiences of the specific job and a wider organisational context, research in this area should be longitudinal. In other words, to measure met-expectations accurately, researchers should first measure the pre-entry expectations of people who have applied to join the organisation and then return to the successful candidates and measure their post-entry experiences. This enables the researcher to make a direct comparison of the expectations and experiences of each individual. Second, the definition suggests that there is a discrepancy between expectations and experience. However, there has been no consideration of the influence of overfulfilment versus underfulfilment of expectations. Empirical studies of equity research, the only area in which extensive work on overfulfilment has been undertaken, suggests that there is a threshold above which overfulfilment of expectations actually has a detrimental effect on satisfaction (Campbell & Pritchard, 1976, cited in Wanous et al., 1992). In view of this, the influence of overfulfilment of expectations on the development of organisational commitment needs to be considered. In addition, Wanous et al. suggested that raw expectations and experience scores should also be tested for the direct influence that they may have on individual levels of organisational attitudes, as well as for the interaction effect that results from discrepancies. Finally, some expectations are not relevant to the met-expectations hypothesis because they are not about important aspects of the job or the organisation. Therefore, any study including measures of met-expectations needs to determine which aspects of expectations are relevant to the outcome variable of interest. In the present study it is hypothesised that expectations related to the formal and informal aspects of the organisation will influence individual levels of organisational commitment differentially.

Finally, in a more extensive, longitudinal investigation of the met-expectations theory, Irving and Meyer (1994) examined the influence of expectations, experiences and

their interaction on individual levels of organisational commitment. Their findings suggested that, although there was modest support for the hypothesis that met-expectations influenced organisational commitment, there is stronger support for the hypothesis that experiences alone will have an impact on the development of affective commitment. In common with most of the other studies of the development of organisational commitment, the results of this study did not include a repeated measures analysis of the changes in individual levels of commitment. In addition, the sample was selected from the graduates of a business course who were not employed by a single organisation. Consequently, there was considerable variability in work experiences. However, these results suggest that the influence of expectations and experiences should be considered when examining the early development of organisational commitment.

The small sample size in the current study eliminated the use of regression analyses to assess the impact of the different facets of expectations and experiences as a group on commitment. However, it was possible to assess the relationships between un-met (or met-) expectations and the decrease in commitment by calculating correlations between changes in each of the facets (i.e., differences calculated by subtracting score at T4 from score at T1 for each facet) and changes in organisational commitment (i.e., difference scores calculated by subtracting commitment at T4 from commitment at T3). For the facet differences, positive scores indicate that experience has not met the pre-entry expectations, negative scores indicate that expectations have been exceeded by experience, and smaller scores indicate less of a discrepancy between the two (i.e., zero indicates that expectations were exactly met by experience). Similarly, a positive difference score for organisational commitment indicates a drop in commitment, a negative score indicates an increase in commitment and scores closer to zero indicate that smaller changes have occurred.

The correlations were first-order partial correlations controlling for the level of organisational commitment held prior to field training (i.e., at T3) since individuals with high levels of commitment may be more likely to view and interpret their experiences

with the organisation as positive, thereby reducing any subsequent decrement in commitment. To ensure that significant relationships were not the result of outliers in the small sample, scattergrams for each of the correlations were generated and examined (refer to Appendix 6.2).

The results of these correlations (Table 6.2) showed that, independent of the influence of original levels of organisational commitment, the drop in commitment across field training was related to un-met expectations regarding the amount of feedback available from the job itself (r = .72, p = .012) and the significance of the task in a wider context (r = .81, p = .003). In both cases, a greater drop in organisational commitment is reported by recruits who feel that their expectations in these facets have been un-met. Not one of the other measured job characteristics or work environment characteristics was related to changes in commitment.

Table 6.2

First-order Correlations Between the Change in Organisational Commitment (T3 to T4) and (Un)Met-expectations Controlling for Organisational Commitment Level at T3 (n = 9).

Work facets	r
Work Environment:	
Career development	.00
Employment conditions	-.07
Working conditions	.00
Work group	.28
Job:	
Autonomy	.23
Dealing with others	.57
Feedback (Job itself)	.72*
Feedback (Other people)	.42
Skill variety	.50
Task identity	-.18
Task significance	.81**

* $p < .01$, ** $p < .001$

(b) Expectations and experiences. The findings of Irving and Meyer (1994) highlight the importance of considering the influence of individual levels of expectations and actual experiences on changes in organisational commitment. On this basis, another

series of first-order partial correlations, controlling for pre-field experience commitment levels, was conducted. These correlations examined the relationship between the change in organisational commitment and individual, pre-entry levels of expectations and between the change in commitment and post-field training levels of experience of work environment and job characteristics. The results of these correlations are shown in Table 6.3.

Table 6.3
First-order Correlations Between Organisational Commitment and Pre-entry Expectations and Post-field Training Experiences Controlling for Organisational Commitment Levels at T3 (n = 9).

	Change in OC correlated with	
Work facets	Pre-entry Expectations	Post-Field Training Experiences
Work Environment:		
Career development	.02	-.18
Employment conditions	.14	-.12
Working conditions	-.09	.24
Work group	.58	-.36
Job:		
Autonomy	.12	-.13
Dealing with others	.24	-.40
Feedback (Job itself)	.25	-.66*
Feedback (Other people)	.51	-.35
Skill variety	.23	-.15
Task identity	-.26	.26
Task significance	-.55	-.86***

* $p < .05$, ** $p < .01$, *** $p < .001$

The results of the correlations indicate that the change in organisational commitment is not related to pre-entry expectations. Furthermore, of all of the facets, only experience of feedback from the job itself and task significance had significant relationships with the change in commitment ($r = -.66$, $p = .027$, and $r = -.86$, $p = .001$ respectively). For both experiences, the negative correlation indicates that individuals who report smaller decreases in organisational commitment also report more positive

experiences. This result supports the previous finding that changes in these job characteristics are related to changes in organisational commitment. Furthermore, it highlights the importance of ensuring that newcomers have positive experiences of both the amount of feedback provided by the job, and of the importance of their work in both the wider organisation and the general community.

(c) Commitment propensity and work ethic. First-order, partial correlations between the change in commitment and commitment propensity and work ethic (controlling for commitment levels prior to field training) were calculated. The coefficients were .17 (n.s.) and .78 (p = .005) respectively.

The positive relationship between the change in commitment and work ethic is somewhat unexpected. By virtue of its positive direction, this results indicates that recruits with higher levels of work ethic showed greater decreases in their commitment. Previous research has found that individuals with a higher work ethic (i.e., those who value work as a central life interest) are more likely to have higher levels of organisational commitment (Kidron, 1978; Mathieu & Zajac, 1990). On this basis, it could be argued that individuals with higher levels of commitment have a more positive view of their experiences with the employer and, in consequence, might report a smaller decrease in commitment as they gain experience with the organisation. Alternatively, if an individual who values work (has a high work ethic) has experiences of the organisation that cause rapid disillusionment, their commitment levels may drop more significantly than individuals who do not consider work to be a central life interest. The results of the present study are more consistent with the latter explanation. Specifically, the positive relationship between work ethic and a decrease in commitment levels after "real world" experience may reflect the fact that the recruits with a more positive work ethic are dismayed by their perceptions of the work environment that may not value or reflect this ethic. The degree to which the recruits perceive that hard work is expected and valued within the work environment or setting may be one key to the specific aspects of their field training that influenced their commitment levels.

The finding that commitment remains stable over academy training but decreases significantly across field training suggests that individual experience of work and the associated socialisation, may be responsible for reducing the commitment levels of police officers. The lack of a continuing decrease in commitment across the probationary year introduces the possibility that it is something specific about the earliest operational experience that results in decreased commitment.

Within the context of the present data set, it was possible to assess influence from only one specific, objective facet of the recruits' field training setting. The recruits spent varying proportions of their field experience at both country and metropolitan police stations. Differences in policing styles between these two areas are frequently discussed, with some authors relating country policing to a people-oriented, community policing style (associated with higher levels of job satisfaction) and metropolitan policing to a task-oriented, reactive policing style (e.g., Goldstein, 1990). It is possible that experience in country police environments would enhance the recruits' experience of community policing and this would serve to enhance organisational commitment. To test this possibility, the proportion of time spent in metropolitan settings by each recruit during the nine weeks of field experience was calculated. This was correlated with the change in commitment across field experience, controlling for the effect of original levels (T3) of commitment. The Pearson coefficient was significant at .66 (p = .026), indicating that recruits who spent more of their field training in a metropolitan setting reported larger decreases in organisational commitment. Correlations between the proportion of time spent in metropolitan settings and un-met expectations for each facet of the work environment and the job were not significant, suggesting that the setting did not influence the extent to which expectations went un-met. It would appear, on this basis, that facets of the police setting other than those tested in this study, impact upon the experience of work and, subsequently, organisational commitment.

A moderate correlation between the proportion of time spent at metropolitan stations and work ethic (r = .56, p = .037) was also reported. This suggests that, by some

coincidence (the proportion of time in each setting was apparently randomly allocated), individuals with higher levels of work ethic spent more time at metropolitan stations. This accords well with the suggestion that individuals with higher levels of work ethic were exposed to less positive work settings, and therefore were more likely to have larger decreases in their levels of commitment.[29] Overall, the results of these correlations provide a basis on which to suggest that the location and nature of field experiences impact upon subsequent commitment to the organisation, either directly, or via an interaction with work ethic (cf. Allen & Meyer, 1990a).

(iii) <u>Individual Differences in Absolute Levels of Organisational Commitment</u>

Although it was of primary importance to identify the factors responsible for the significant change in organisational commitment, it is also of interest to determine which of the factors measured in the study were linked to absolute levels of organisational commitment. This may help to identify factors that influence the development of organisational commitment, but that are not associated with the reported decrease. Once again, the size of the sample restricts these analyses to correlational forms. However, the results should still make a contribution to the body of evidence regarding the hypothetical antecedents of organisational commitment.

The theories and research outlined in the introduction suggest that individual levels of organisational commitment will be influenced by commitment propensity (Lee et al., 1992), work ethic (Mathieu & Zajac, 1990), pre-entry expectations (Meyer et al., 1991; Wanous et al., 1992), post-entry experiences (Irving & Meyer, 1994), and the degree to which pre-entry expectations are unfulfilled by post-entry experiences (Dean et al., 1988). To assess each of these claims, two sets of correlations were calculated. The first was

---

[29] A first order correlation between the percentage of time spent at metropolitan settings and the change in organisational commitment, controlling for work ethic as well as pre-field experience level of organisational commitment, resulted in a coefficient of .51 ($\underline{p}$ = .131). Although the size of the correlation is medium (cf. Cohen, 1969), the lack of significance points to the problem of small sample size (in this analysis, $\underline{n}$ = 12) which limits the stability of the effect. Despite this problem, the result tentatively suggests that the relationship between change in commitment level and the percentage of time spent in metropolitan field settings is, in fact, independent of the individual's level of work ethic. However, replication of the analysis with a larger sample would be necessary to substantiate the conclusion.

between levels of organisational commitment and each of these other measures. These correlation coefficients are presented in Table 6.4, and are discussed first. The second set of correlations, to be discussed subsequently, compared individual levels of organisational commitment after field training and probationary experience with the difference scores calculated previously for each of the facets of the job and the work environment.

Table 6.4
Correlations Between Organisational Commitment and Other Survey Measures.

Measures	OC (T2)	OC (T3)	OC (T4)	OC (T5)
T1 Measures				
Expectations (Academy):				
Time spent studying	.53*	.28	-.27	-.07
Competition	.01	-.12	-.36	-.05
Physical challenge	-.41	-.21	-.52	-.37
Intellectual challenge	-.03	.17	.03	-.30
Relevance to "real world"	-.03	-.01	-.29	-.28
Expectations (Work environment):				
Career development	.62**	.17	.37	.61*
Employment conditions	.15	.04	.39	.35
Working conditions	.08	.18	-.02	.04
Work group	-.01	-.23	.07	-.18
Expectations (Job):				
Autonomy	.55*	.27	-.05	.12
Dealing with others	.29	.16	-.27	-.05
Feedback (Job itself)	.39	.28	.03	-.00
Feedback (Other people)	-.12	-.09	-.26	-.40
Skill variety	.31	.42	.15	.08
Task identity	.38	.12	.00	.25
Task significance	.23	.27	.56*	.52*
Work ethic	.06	-.29	-.67**	-.13
Commitment Propensity	.59**	.44	.14	.40
T2 Measures				
Experiences (Academy):				
Time spent studying	.12	-.16	-.07	.05
Competition	-.06	-.42	-.28	.04
Physical challenge	-.32	-.42	-.37	.15
Intellectual challenge	.00	-.00	.09	.18
Relevance to "real world"	.18	-.02	.03	.54
T3 Measures				
Experiences (Academy):				
Time spent studying		-.13	.10	.33
Competition		-.60**	-.14	.12
Physical challenge		-.49*	-.62*	-.29
Intellectual challenge		-.13	-.02	.20
Relevance to "real world"		.28	-.38	-.19

Table 6.4 (continued)

Measures	OC (T2)	OC (T3)	OC (T4)	OC (T5)
T4 Measures				
Experiences (Work environment):				
Career development			.27	.38
Employment conditions			.20	-.02
Working conditions			-.13	-.15
Work group			.48	.34
Experiences (Job):				
Autonomy			.15	.09
Dealing with others			-.10	.37
Feedback (Job itself)			.50	.19
Feedback (Other people)			.42	.26
~~T1 Measures~~				
Skill variety			.11	.07
Task identity			.11	-.08
Task significance			.71**	.65**
T5 Measures				
Experiences (Work environment):				
Career development				.58*
Employment conditions				.46
Working conditions				-.57*
Work group				.13
Experiences (Job):				
Autonomy				-.29
Dealing with others				.49
Feedback (Job itself)				.51*
Feedback (Other people)				.34
Skill variety				.47
Task identity				-.34
Task significance				.72**
Perceived Organisational Support				.60*
Peer Cohesion				.62**
Commitment Norms				.51*
Participation				-.04
Communication: Quality				.33
Communication: Information exchange				.42
Investments				.37
Understanding of goals				.10

* $p < .01$, ** $p < .001$.

(a) Commitment propensity. Contrary to the findings of Lee et al. (1992), only one significant relationship was found between commitment propensity and organisational commitment (at T2). Furthermore, a subset of correlations, between organisational commitment and the subscales of commitment propensity, indicated that, contrary to both Meyer et al. (1991) and Lee et al. (1992), volition did not correlate significantly with

levels of commitment at any time of measurement (refer to Appendix 6.3 for the details of these correlations). Only one subscale of commitment propensity, desire for a career with the police organisation, correlated significantly with commitment (and then only at T2, $r = .55$, $p = .021$). To some degree, these results may be an artifact of the small sample size, since a number of the other correlation coefficients are above .30 (considered to be a sign of medium strength when significant; Cohen, 1969). However, it could also be argued that the selection process experienced by these recruits was stringent enough to ensure that only those with the highest possible levels of commitment propensity were hired. In the present study, the mean of commitment propensity was 0.12 ($SD = 0.34$, range from -.49 to .76), with a possible range from -1.0 to 1.0. This tends to suggest that there was a slight bias toward the higher end of the scale and that, as a result, correlations between commitment propensity and commitment were somewhat attenuated. However, larger sample sizes would be required to determine the nature of the relationship between commitment and commitment propensity.

(b) Work ethic. Another finding inconsistent with previous research was that only one significant correlation occurred between commitment and Protestant Work ethic, and that this was negative ($r = -.67$, $p = .009$). This indicates that individuals with a higher work ethic reported lower levels of commitment after their experience of field-training. That the relationship did not occur prior to field training suggests that something related to this experience impacted upon the high work ethic individuals in such a way as to seriously influence their absolute levels of organisational commitment. Once again, a replication with a larger sample would be necessary to test this hypothesis.

(c) Expectations and experiences. Unlike Meyer et al. (1991), the data for this study were able to be used to assess the influence of pre-entry expectations on subsequent levels of commitment. Furthermore, the data provided a means of assessing the effect of actual experience on commitment levels. As expected, expectations held prior to entry are related mainly to levels of commitment held during academy training (T2), whereas experiences of different facets of the academy, work environment and work were

related to commitment levels measured at the same time.

The most interesting pattern found in the results shown in Table 6.4, is that between task significance and commitment. Specifically, recruits who held high expectations regarding the degree to which their job would be significant in the wider scheme of things reported higher levels of commitment up to 18 months after entry (i.e., T4 and T5). Furthermore, the recruits who reported higher levels of actual (experienced) task significance after both field training and probationary experience reported higher levels of commitment both immediately and at the subsequent time of measurement. These results suggest that the degree to which the recruits expected their job to be valuable and experienced it as such impacted upon their organisational commitment.

A repeated measures ANOVA examining the change in task significance from expectations, to post-field training experience, to post-probationary experience, showed a significant decrease in the recruits' perception of their value to the community after field training ($F_{(2,26)} = 7.55$, $p < .001$; refer to Appendix 6.4 for details of this analysis), although the absolute levels of task significance remained relatively high (i.e., with a possible maximum of 7, $M_{expectation} = 6.52$, $SD = 0.52$ to $M_{post\text{-}field} = 5.98$, $SD = 0.85$ and $M_{post\text{-}probation} = 5.98$, $SD = 0.83$). This result, in combination with the previous finding that the change in commitment is related to the change in task significance, suggests that police recruits need to feel that their job is of value to the community for their commitment levels to remain high.

Other significant relationships were found between levels of commitment held by the recruits after their probationary experience and perceived organisational support, peer cohesion and commitment norms. These results are consistent with the findings reported in earlier chapters. They suggest that individual levels of commitment are influenced strongly by peer groups, especially the degree to which the newcomers feel that commitment is expected, and by the degree to which the newcomers feel that the organisation provides support for them as individuals.

In summary, the results of the first set of correlations provide some evidence for the influence of some of the proposed antecedents on individual levels of organisational commitment. Furthermore, task significance appears to be the only facet of the recruits' work experience that consistently influences their individual levels of organisational commitment, although there is a strong peer group effect during probation.

(d) Met- (Unmet-) expectations. The second set of correlations examined the influence of un-met expectations on individual levels of organisational commitment following real experience of the organisation and job. These correlations took the form of a set of first-order partial correlations between individual levels of organisational commitment (at T4 and T5) and the degree of fulfilment of expectations regarding each facet of the work environment and the job, controlling for the effects of the pre-entry expectations component since individuals with high expectations prior to entry may be more likely to view and interpret their experiences with the organisation as positive (Meyer et al., 1991). The results of these correlations are shown in Table 6.5.

Table 6.5

First-Order Partial Correlations Between Difference Score Measures of Un-met expectations and Individual Levels of Organisational Commitment Controlling for Pre-entry Expectations.

Measures	OC (T4)	OC (T5)
Work Environment:		
Career development	-.08	-.08
Employment conditions	-.01	.26
Working conditions	.13	.20
Work group	-.48	-.38
Job:		
Autonomy	-.14	-.38
Dealing with others	.09	-.38
Feedback (Job itself)	-.51	-.19
Feedback (Other people)	-.48	-.36
Skill variety	.03	-.06
Task identity	-.15	-.16
Task significance	-.55*	-.49

* $p < .05$.

These results show only one significant relationship (between task significance and organisational commitment; $r = -.55$, $p = .05$) after the effects of pre-entry expectations are removed. This result provides additional support for the finding that task significance is important in the development of organisational commitment, by showing that recruits whose experience of task significance did not live up to their expectations tended to report lower levels of commitment. In other words, recruits who felt that their work should be important, and then found that their experience of work fulfilled this expectation, reported higher levels of organisational commitment.

(iv) Probationary Levels of Organisational Commitment: A Comparison of South Australia and New South Wales

The final survey administered to the recruits (i.e., in May 1996) replicated the first survey administered to the New South Wales sample (i.e., in January 1994). The first cohort in the latter sample comprised probationary officers nearing the completion of their probationary service (i.e., with approximately 12 months of operational experience). This group could be compared with the recruit sample at the end of their probationary service, on all measures, to determine the degree to which the groups were comparable. If no significant differences on demographic and independent measures were found, it would be legitimate to compare the commitment levels of the two groups.[30]

A series of independent t-tests was conducted for each of the 19 demographic and independent measures (refer to Appendix 6.5 for details of these analyses). Only three significant differences were found. The first result indicated that the South Australian sample felt that they had a better understanding of organisational goals than the New South Wales sample ($M_{South\ Australia} = 4.00$, $SD = 0.76$ cf. $M_{New\ South\ Wales} = 3.41$, $SD = 0.99$, $t = 2.18$, $p = .03$). On the other hand, the New South Wales sample reported significantly higher levels of cynicism directed toward rules and regulations ($M = 3.40$, $SD = 1.05$ cf. $M = 2.35$, $SD = 1.07$; t = 3.49, p < .001) and toward citizens ($M = 5.25$, $SD = 1.04$ cf. $M = 4.65$, $SD = 1.17$; t = 1.96; p = .054) than

[30] The New Zealand sample was excluded from this comparison since it had been shown previously that these officers had higher levels of commitment than the New South Wales officers.

their South Australian counterparts. However, overall, the pattern suggests that the similarities between the groups were sufficient to permit comparison of the commitment levels in the two groups.

The results of an independent t-test indicated that no significant difference on organisational commitment existed between the South Australian and New South Wales probationary officers ($t = .63$, $p = .532$, $M_{South Australia} = 5.27$, $SD = 0.79$ and $M_{New South Wales} = 5.12$, $SD = 0.85$). This result provides some support for the contention that police across Australia work in a uniform environment and have comparable affective responses to that environment. It is possible to suggest that the developmental trend in organisational commitment in police organisations in Australia that was described in previous chapters could be extended to incorporate the levels of commitment reported by the recruits in this study. The trend would, therefore, appear as it does in Figure 6.3.

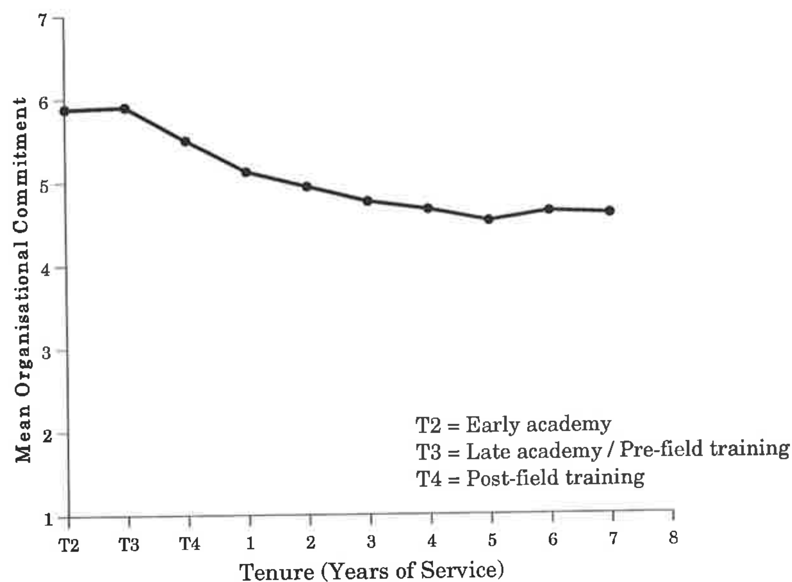


Figure 6.3. Cross-sectional trend in organisational commitment in Australian police organisations.

4. Conclusion

This examination of the development of organisational commitment across academy and field training and probation provides strong evidence that the early high levels of organisational commitment reported by police recruits decreases as a result of field training (i.e., exposure to "real policing"), but not as a result of academy training (cf.

Ellis, 1991, and Van Maanen, 1975). This result conforms to the hypothesis that institutionalised socialisation tactics provide experiences that are controlled by the organisation in a manner designed to reduce role ambiguity, to increase skills and knowledge and to maintain allegiance to the organisation. These experiences in turn are linked to high levels of commitment. In the present study, while the recruits were training at the academy (i.e., institutionalised socialisation), their commitment levels remained high. However, when exposed to individual socialisation on patrol, where their experiences were heterogeneous and designed (if at all) to make the newcomer conform to the norms of the peer group, the commitment of the recruits dropped significantly.

Partially consistent with the conclusions of Dean et al. (1988), Wanous et al. (1992), and Irving and Meyer (1994), both the decrease and individual's absolute level of commitment are related to un-met expectations about, and experiences of, the feedback provided by the job itself and the degree of task significance. In addition, and unexpectedly (cf. Kidron, 1978), the decrease is related to work ethic in a manner that indicates that a larger decrease is reported by recruits with higher levels of work ethic. Finally, recruits who spent more time in country settings during their field training reported smaller decreases in commitment than their peers who spent a greater proportion of their time in metropolitan settings. An interaction between work ethic and field training setting (where individuals with higher levels of work ethic seemed to be assigned to metropolitan stations for a larger proportion of their field training) confounds attempts to dissect the individual influences of these two factors.

Wanous et al. (1992) discussed the possibility that the environment of the organisation would impact on the influence of met-expectations. Specifically, they stated that:

> Environments that send clear messages to newcomers and in which there is a relatively high consensus among the insiders sending the messages have the potential to disconfirm even the most strongly held expectations by newcomers (p. 294).

This may help to explain the radical decrease in commitment after exposure to operational police officers during field training. Certainly, the police street culture is purported to be highly structured and the results of the major study of this thesis provide strong evidence that there is a pervasive norm among experienced police officers that disavows commitment to the organisation. Newcomers who are anxious to become a part of the "in-group" will actively seek to identify and internalise these norms (Van Maanen & Schein, 1979). Individuals who hold work as a central life interest seem to react to this norm in a more extreme manner than individuals who are less inclined to believe that their work should be the major factor in their lives.

The influence of reference groups as a moderating factor in the development of police recruit attitudes has been examined by Bennett (1984) and by Stradling, Crowe, and Tuohy (1993). In his study, Bennett conducted a longitudinal test of a model of police socialisation incorporating the premise that reference group affiliation moderates the effect of personal characteristics, anticipatory socialisation, structural factors (e.g., administrative decentralisation, role ambiguity and social isolation) and encounters (i.e., the demands and expectations of police interactions with the public) on the development of the work-related attitudes of police recruits. His data provided partial support for the premise. It is possible that stronger support would have been found if he had selected the experienced officers on the basis that they worked with the recruits he had tested, rather than at random from the police population. Stradling et al. (1993) measured a range of attitudes (not including organisational commitment) in five groups of police recruits ranging from one week of training to recent confirmation as constables (after two years of training and probation). Their results suggested that changes in attitudes occurred across both training and field experience, and that conformity with work group practices was a strong deciding factor in the determination of different attitudes. However, their data were cross-sectional and, therefore, causal inferences could not be drawn. The data in the present study provide strong additional evidence that experience of reference group norms are in some way critical to some developmental aspects of police recruits'

attitudes.

Finally, the results of this study of recruitment levels of organisational commitment are consistent with the earlier results of the major study. The levels of commitment reported by the recruits toward the end of their probationary year are the same as the levels reported by the probationary sample from New South Wales. This lends additional support to the existence of a true developmental trend, independent of age and cohort effects, for organisational commitment in Australian police organisations. Furthermore, the factors responsible for overall commitment levels are consistently related to the attitudes of co-worker groups (i.e., the modelled norms) and to the individual's experience of personal support from the organisation. In common with the previous studies in this thesis, the present study suggests that exposure to positive organisational experiences are critical to the development of organisational commitment in police officers, especially during the earliest period of employment. Nonetheless, the extent to which this contention applies to all employees of the police organisation has not yet been established. Therefore, a study of non-police officer employees of the police organisation was conducted, and is reported in the next chapter.

Chapter 7

Organisational Commitment Across Occupations in the Police Organisation

1. Introduction

The preceding chapter examined the influences acting on the development of organisational commitment in police officers during early tenure, illustrating the rapid decrease in commitment following entry into the police organisation. These results lead, as discussed in Chapter 4, to another interesting question: is the development of commitment influenced by factors specific to the organisation or to the occupation? To summarise the relevant results, a difference in absolute levels of commitment was found between organisations (i.e., the levels in the New Zealand police department were higher than the levels found in the New South Wales police department). On the other hand, the trend in the development of commitment was the same in both New Zealand and New South Wales, and could be described as an asymptotic-type function showing decreasing commitment through time. The trend was contrary to that expected on the basis of previous research in which commitment was shown to increase with tenure (as a result of increasing affective and behavioural investments) after an initial decrease following upon entry to the organisation (e.g., Mowday et al., 1982). This suggests that factors specific to police organisations may be responsible for the observed trend. This contention receives some support from another finding in the current study; that the factors linked to individual levels of commitment were the same in both police organisations. Overall, these findings suggest that the factors influencing the development of commitment were the same in different police organisations, independent of country.

However, this finding does not exclude the possibility that it is not experience of the police organisation that causes that decline, but rather that the trend is a result of experiences specific to the job of police officer or that experiences of the organisation are moderated by job. Within the police organisation, employees are made up of two groups; sworn personnel (i.e., police officers) and nonsworn personnel (i.e., public servants). It is

arguable that police officers are distinguishable from other employees because they have unique responsibilities and powers. Specifically, they have the authority to arrest and detain other citizens. This authority is invested in all sworn police officers, independent of the actual job that they do in the organisation (i.e., whether they are doing general duties patrol or administrative work). Police can be further differentiated from nonsworn personnel by the strong socialisation process they are exposed to and a pervasive culture that influence their attitudes and behaviours, and that cause them to develop the idea that they are different from "civilians" (e.g., Ellis, 1991). It is possible, therefore, that experiences specific to the occupation of police officer, rather than experiences linked to working for the police organisation per se, are responsible for the unique developmental trend found for organisational commitment. This chapter outlines a study designed to separate the effects of the organisation from the effects of the office of police officer on the development of commitment. As a first step toward the description of this study, it is important to examine the literature for studies that examine the influence of organisation, versus the influence of occupation[31], on both the absolute levels of, and the development of, organisational commitment.

(i) <u>Same Occupation, Different Organisations: Comparisons of Commitment Within an Occupation but Across Organisations</u>

The results from the major study of this thesis showed, as discussed above, that differences in absolute levels of commitment do exist between different organisations but within an occupation (i.e, between New Zealand and Australian police officers). This finding is consistent with the results of a study conducted with lawyers by Wallace (1995). Specifically, Wallace compared the commitment of lawyers working in private practice in law firms ("professional" law organisations) and lawyers employed in

---

[31] There does not seem to be a coherent framework regarding the use of the terms "occupation", "profession", "career", "job" and "role" within the literature. For the purposes of the present study, "occupation" will be used to describe the position of an employee at a level comparable to the office of police constable. In other words, an occupation is a business, trade or calling, in which different individuals may do different jobs (e.g., administrative, manual, managerial) while still identifying themselves as members of the occupation.

government and private organisations ("nonprofessional organisations"). She found that the lawyers in nonprofessional organisations had lower levels of organisational commitment than their counterparts in professional organisations. The commitment of both samples of lawyers was related to the same factors (i.e., promotional opportunities and fair reward systems), and the higher levels of commitment in the professional organisations were explained by better promotional opportunities and fairer reward systems in these organisations. This is consistent with the results presented in Chapter 4, and provides additional evidence for similarities in the development of commitment within occupations independent of specific organisation. In other words, the findings of both of these studies suggest that the factors associated with the development of commitment are occupational (i.e., related to the office of police constable or of lawyer) rather than organisational but that within the one occupation, organisationally dictated differences may exist. However, these studies do not establish whether differences occur in the development of commitment in different occupations.

(ii) Different Occupations: Comparisons of Commitment Across Occupations Within and Across Organisations

One theory that provides a basis for explaining differences between subgroups of employees across or within organisations is the "dual labor market theory" found in economics (see Thompson & Terpening, 1983). Essentially, it is argued that there are two distinct occupational types: primary (characterised by high individual growth and advancement potential, highly skilled jobs with high marketability, good salary levels and greater expectations for autonomy and responsibility, such as administrative, technically-skilled or professionally-based jobs) and secondary (characterised by low individual growth and advancement potential, low skill level jobs with marginal marketability, poor salary levels and low expectations of autonomy and responsibility, such as clerical, maintenance or assembly-line jobs). The theory suggests that worker attitudes, including commitment to the organisation, are influenced by the type of occupation in which they are employed. Specifically, Thompson and Terpening (1983)

found that the factors that influenced the job satisfaction of employees in primary jobs included autonomy and fairness in promotional opportunities, whereas task variety and feedback were critical to the job satisfaction of employees in secondary jobs. Essentially, the theory suggests that the development of work-related attitudes is influenced by different factors depending on occupation.

Some empirical support for this theory can be found in the results of a recent meta-analysis examining the relationships between organisational commitment and various antecedents across occupational groups (Cohen, 1992). Specifically, Cohen (1992) compared the results from studies of white collar professionals, white collar nonprofessionals, and blue collar workers. His results indicated that occupational group moderated the strength of the relationships between commitment and some of its antecedents. For example, stronger relationships were found between commitment and autonomy and between commitment and income for the professionals (i.e., white collar) when compared with the nonprofessionals (i.e., both white collar and blue collar), whereas the reverse was found for role ambiguity. Cohen concluded that organisations needed to consider the occupational type of the employees when deciding on ways to enhance commitment. However, because of the meta-analytic nature of his study, he was unable to compare occupations directly within a single organisation, but based his conclusions on general results from different organisations. In addition, his analysis -- and, indeed, the dual labour market theory -- utilises a gross definition of occupation, which may obscure interesting comparisons between occupations. Furthermore, some occupations do not easily fit into the categories of occupations employed by Cohen or Thompson and Terpening (1983). Policing is one such occupation, with a tradition as a blue collar employment, but with a more recent move toward professionalism. Nonetheless, Cohen's results point to a need to differentiate between occupational groups when attempting to explain the development of organisational commitment.

(iii) <u>Occupations Within Police Organisations</u>

Although it would be interesting to establish differences in the commitment levels

of different occupational groups independent of the employing organisation's characteristics, it could be argued that it is equally important to examine these differences within a single organisation. This is particularly true of police organisations. As previously described, there are two types of police employees: sworn officers and nonsworn staff members. The former are employed under the provisions of Police legislation and have special powers as police constables (e.g., arrest). Although all officers have this power, many work in purely administrative roles. The results of the present study suggest that police officers develop low levels of commitment independent of the type of work in which they are engaged.

On the other hand, nonsworn police employees are hired under public service legislation and they do not hold the special powers of the constable. Although the majority of these employees are involved in clerical or administrative work, a proportion are employed in higher status positions (e.g., management or specialists). There is yet to be an examination of the development of organisational commitment in these employees, and it is not known whether the type of the work that these individuals do impacts on development. If the development of commitment within the police organisation results from experiences of the organisation, it would be expected that the nonsworn sample would exhibit the same developmental trend as the police officers. On the other hand, if experiences of the occupation influence the development of commitment, the two trends may be different. If this were the case, it would be expected that the trend exhibited by the nonsworn employees would be more like the trend proposed in the literature; an immediate decrease after entry followed by a slower, on-going increase with increasing tenure (e.g., Mowday et al., 1982). Furthermore, factors other than those linked to commitment in the police sample may influence the development of organisational commitment in the nonsworn sample.

(iv) Occupational Influences on Organisational Commitment

Apart from type of work, there are two occupational factors that may influence either the absolute levels, or the developmental progress, of organisational commitment

in the nonsworn sample. The first is rank (status). Mathieu and Zajac (1990) reported a small, but significant, positive correlation between affective commitment and job level (i.e., average r = .18 across 13 studies). They argued that the prestige associated with moving to a higher job level will enhance commitment to the organisation. However, this result is somewhat confounded by the differences in job level across the organisations. In other words, job level may not have been comparable across the 13 organisations from which the data were collected. It should be noted that rank did not influence the commitment levels of the police sample in the present study (see Table 4.7). This result may be specific to the police occupation, or it may be specific to the police organisation. If the latter is true, the commitment of the nonsworn employees should also be independent of their status within the organisation.

The second factor, linked to occupation, that may influence the absolute level, and the development, of organisational commitment is qualification. In their meta-analysis, Mathieu and Zajac (1990) found a small, but significant, negative correlation between attitudinal commitment and education. They suggested that individuals with higher levels of education would have lower levels of commitment either because they held higher expectations about the organisation (which the organisation was unable to fulfil) or because they were likely to have a greater number of job options and, as a result, show less proclivity for entrenchment in the organisation. In other words, these people may be committed to their job or work, but not committed to the organisation because they know they can find alternative employment on the basis of their qualifications. These people remain in the organisation, despite not being committed to the goals of the organisation, and may not feel prompted to develop commitment over time. In the present context -- a comparison of sworn and nonsworn police employees -- this factor is likely to be differentially important because the police officers have extensive training with limited portability between organisations, while the nonsworn staff have limited or more general training with greater portability.

On the other hand, Vandenberg and Scarpello (1994) argued that employees who

have trained for their occupations prior to entry to a specific organisation will have higher levels of commitment than those who have not. Like Mathieu and Zajac (1990), Vandenberg and Scarpello suggest that the employees' qualifications provide them with a higher degree of job mobility thereby enabling them to leave if they are no longer committed to the organisation. They argue that these individuals will only stay if they develop high levels of commitment to the organisation, because they could, and would, leave if they were not committed. According to this theory, qualified employees will have high levels of commitment to begin with, and will increase their commitment with tenure. Indications to date suggest that qualifications do not impact upon the commitment of police officers (refer to Table 4.7). Once again, whether this is specific to the police occupation or the police organisation is not known. Within the nonsworn employees of police organisations there is a group of employees who hold tertiary qualifications (e.g., technical specialists, journalists and psychologists). Comparisons between the commitment levels of this group and their unqualified colleagues may indicate that qualification does influence the development of commitment in a non-police sample. If this is the case, it may be possible to clarify the debate between the two theories described above.

(v) Conclusion

To summarise the preceding discussion, some of the results reported in Chapter 4 suggest that, although absolute levels of commitment differ across police organisations, the developmental trend of commitment is consistent for police officers independent of the specific organisation in which they are employed. Two explanations may be postulated for this result: either development is linked to factors specific to police organisations or development is linked to factors specific to the police occupation. While there is other evidence that the factors linked to commitment are consistent within occupations, independent of organisation (Wallace, 1995), there has not yet been a study comparing directly the development of commitment across occupations within an organisation.

The present study was designed to address this omission. The New South Wales Police Service employs approximately 3,000 nonsworn employees. Data were collected to enable comparisons of the developmental trend in commitment of the police employees and the nonsworn employees, taking into consideration the status and qualifications of the nonsworn employees. If the development of commitment in the nonsworn groups reflects the trend in the police officer sample, then variables essential to the organisation are responsible. If there are differences, then factors related to the subcultures of the occupations would apparently be responsible. In view of this possibility, measures of various personal, organisational and role characteristics were collected to enable an exploration of influential factors.

2. Method

(i) <u>Participants and Procedure</u>

A survey, incorporating the measures administered to the police officers during 1996, was distributed during March 1996 to the nonsworn employees of the New South Wales Police Service (n = 2,850). A copy of the survey, a letter explaining the study, and a reply-paid envelope were mailed to each participant at their work addresses. They were asked to complete the survey and return it in a reply paid envelope. The nonsworn members of the Service are employed under public service legislation. As a consequence of the differences in legislation, their conditions of employment, career development options, and other facets of work are different from those of sworn officers. Anecdotal evidence suggests that many of the nonsworn employees feel less valued by the organisation than sworn police officers.

Eight-hundred and fifty-five of the nonsworn employees returned surveys, for a response rate of 30%. (An additional 33 surveys were returned unopened for a variety of reasons including resignations and extended leave.)

(ii) <u>Measures</u>

The measures included in the survey for the nonsworn sample were the same as those for the New South Wales sample in 1996 (i.e., the third round of data collection;

refer to Chapter 4.3.(ii)).[32] In addition, the nonsworn employees were asked for a range of demographics including age, gender, position, qualifications, age at recruitment to the New South Wales Public Service and to the Police Service, and positional tenure (i.e., time in present posting). The demographics of the sample are given in Table 7.1. Finally, the nonsworn employees were asked (as were the police sample in the 1995 survey) about the opportunity for them to obtain comparable employment in another occupation.

Table 7.1.
Demographics of the Nonsworn Employees (n = 855).

Demographic		M	(SD)	Frequency
Age		38.12	(9.50)	
Age at joining the public service		25.20	(9.00)	
Age at joining the police service		28.46	(9.66)	
Positional tenure		4.08	(3.17)	
Tenure (Public service)		12.95	(8.77)	
Tenure (Police service)		9.71	(7.82)	
Gender:	Male			300
	Female			513
Position:	Clerical, Administrative, Maintenance			448
	Supervisor			60
	Middle management			138
	Senior management			22
	Specialist			103
Trade, tertiary or TAFE qualifications:	Yes			535
	No			308
Type of qualification:	Trade			26
	Diploma			205
	Degree			90
	Post-graduate			20
	Not given			193

[32] A series of principal components (varimax rotation) factor analyses examining the structure of these measures for the nonsworn sample as a whole gave results almost exactly the same as those of the police samples. Refer to Appendix 7.1 for details.

3. Results and Discussion

(i) The Influence of Status and Qualification on Organisational Commitment in the Nonsworn Police Employee Sample

For the purposes of exploratory analyses to assess the effect of positional status and formal qualifications, the sample was divided into six categories. "High" status employees were those who reported that their positions were middle or senior management or specialist, whereas "Low" status employees reported that their positions were supervisory, maintenance or clerical / administrative. The members of each of these categories were then subdivided into three groups: those not holding tertiary qualifications (Unqualified; $n_{High} = 73$, $n_{Low} = 217$), those holding certificates or diplomas (Low level qualifications; $n_{High} = 75$, $n_{Low} = 142$), and those holding bachelor or post-graduate degrees (High level qualifications; $n_{High} = 73$, $n_{Low} = 26$).[33]

The only significant result in a 2 (Status group) by 3 (Qualifications) analysis of variance for organisational commitment was a main effect for qualification ($F_{(2,602)} = 6.72$; $p = .007$; see Appendix 7.2). Neither the main effect for status nor the interaction effect were significant. Post-hoc (Scheffe) tests indicated that the group of nonsworn employees with bachelor or post-graduate studies had lower levels of commitment than both of the other two groups ($M_{High\ level} = 4.08$, $SD = 1.18$; $M_{Low\text{-}level} = 4.56$, $SD = 1.12$; and $M_{Unqualified} = 4.45$, $SD = 1.20$). This result is contrary to Vandenberg and Scarpello's (1994) expectation that employees with tertiary qualifications should have higher levels of commitment since their qualifications should give them more alternative job opportunities and they should, therefore, need only remain in an organisation if they are committed to its goals. On the other hand, this result is consistent with Mathieu and Zajac's (1990) argument that employees with qualifications are unlikely to be committed to their organisation, because their potential job mobility means that they are less likely to become entrenched in an organisation.

---

[33] The labels given to these categories are purely for convenience and are in no way meant to be value statements about the qualifications.

Given that there was no main effect for status group, the value of continuing to make a distinction between high and low status positions within the nonsworn sample in subsequent analyses was minimal. Furthermore, there was no difference in the commitment of the employees with no qualifications and those with diplomas or certificates. For convenience and to maximise the number of participants within each category, these individuals were grouped together under the label "Unqualified". The means (and standard deviations) and alpha coefficients of, and intercorrelations between, the measures for each of the nonsworn samples are reported in Table 7.2.a (Unqualified) and Table 7.2.b (Qualified).

(ii) Comparisons of Police Officers and Nonsworn Police Employees

The correlations between commitment and tenure in the police organisation for the qualified and unqualified nonsworn groups were $r = .10$ ($p = .33$) and $r = -.13$ ($p = .004$) respectively (cf. $r = -.08$; $p = .07$, for the police sample in 1996). Once again, this result does not fit either of the expectations for these relationships. Specifically, one option for these results was that both of the nonsworn correlations would be negative, as was the police sample correlation. This would indicate that the police organisation was in some way responsible for the decreasing commitment. On the other hand, if both of the nonsworn correlations were positive, the suggestion would be that the nonsworn employees were responding in a way similar to employees in other organisations and that the police officers were reacting in a manner that was unique to their occupational group. In fact, the results suggest that the unqualified employees responded like the police officers, whereas the response of the qualified group was more like the norm (albeit that the correlation was not significant). Given this apparent differences, further examination of these relationships was deemed to be worthwhile.

Table 7.2.a

Means and Intercorrelations[a] in the Nonsworn Survey for the Unqualified Employee Group (n = 539).

	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. **Organisational commitment**	4.50 (1.17)	**.89**	.21	-.03	-.13	-.13	-.17	.33	-.19	.03	.35	.33	.61	.54	.42	.38	.41	-.45	-.34	.50
2. Understanding organisational goals	3.71 (1.15)		.na	.12	.05	.06	-.01	.24	-.23	.09	.13	.21	.21	.32	.29	.18	.20	-.23	-.10	.20
Personal Characteristics																				
3. Age (years)	37.59 (9.78)			.na	.43	.53	.28	.10	-.08	-.12	-.01	.11	.02	.10	.06	.03	.02	-.00	.01	.10
4. Police Service tenure (years)	10.38 (9.11)				.na	.76	.35	.13	.03	-.16	-.03	.12	-.05	.05	.03	.06	.01	.05	.12	-.03
5. Public Service tenure (years)	12.90 (8.61)					.na	.30	.07	.00	-.07	-.07	.12	-.04	.05	.04	.08	.07	.03	.09	-.01
6. Positional tenure (years)	4.09 (3.23)						.na	-.00	-.02	-.08	-.03	-.11	-.11	-.05	-.04	-.05	-.02	.01	.13	-.06
7. Investments	6.21 (1.50)							**.68**	-.17	.13	.13	.23	.18	.42	.30	.22	.18	-.15	.01	.20
8. Self esteem	1.72 (0.53)								**.87**	-.22	-.04	-.16	-.13	-.23	-.18	-.06	-.08	.26	.05	-.21
9. Tenure-related: Job availability	4.21 (1.79)									.na	-.08	-.01	-.06	.12	.02	-.01	-.00	.01	.09	-.01
Formal Organisational ~~Characteristics~~ Climate																				
10. Communication: Quality	2.88 (0.43)										**.16**	.18	.41	.22	.25	.17	.22	-.32	-.33	.28
11. Information exchange	3.15 (0.88)											**.71**	.50	.24	.32	.45	.31	-.39	-.30	.34
12. Perceived organisational support	3.54 (1.24)												**.93**	.29	.35	.48	.46	-.48	-.47	.49
Informal Organisational ~~Characteristics~~ Climate																				
13. Commitment norm: Self	5.50 (1.45)													.na	.62	.40	.37	-.26	-.13	.29
14. Peers	4.89 (1.42)														.na	.54	.44	-.32	-.21	.27
15. Supervisor	5.19 (1.63)															.na	.60	-.35	-.27	.25
16. Senior officers	5.42 (1.50)																.na	-.30	-.28	.30
Role Characteristics																				
17. Role ambiguity	2.81 (1.13)																	**.87**	.51	-.35
18. Role conflict	3.90 (1.36)																		**.87**	-.28
Met-expectations																				
19. Confirmed expectations	3.98 (1.43)																			**.56**

[a] For $r > .12$, $p < .01$; for $r > .14$, $p < .001$. Internal consistency, as measured by Cronbach's alpha, are reported in the first diagonal.

Note: na = Not applicable; Cronbach's alpha cannot be calculated for single item measures.

Table 7.2.b

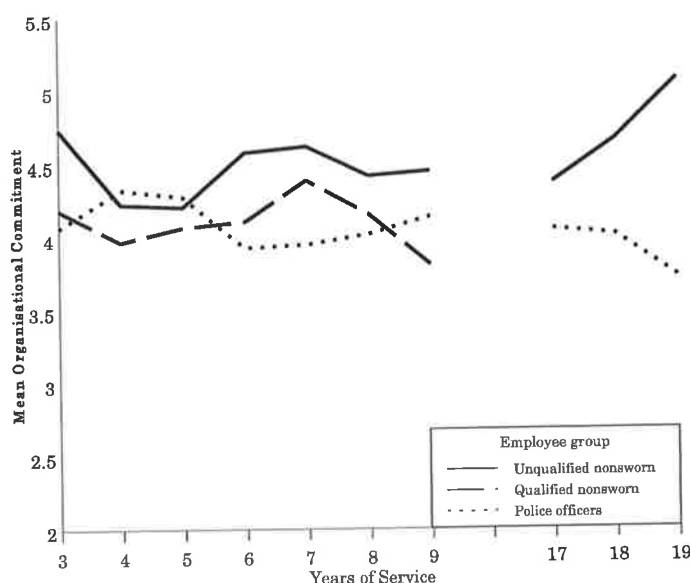
Means and Intercorrelations[a] in the Nonsworn Survey for the Qualified Employee Group (n = 112).

	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. **Organisational commitment**	4.08 (1.18)	**.88**	.25	.09	.10	-.09	.01	.29	-.19	-.22	.32	.41	.58	.51	.38	.29	.39	-.53	-.39	.58
2. Understanding organisational goals	4.04 (1.08)		.na	.10	-.01	-.01	.01	.16	-.05	-.02	.06	.40	.24	.09	.22	.29	.25	-.30	-.23	.19
Personal Characteristics																				
3. Age (years)	38.85 (8.28)			.na	.31	.50	.32	.11	-.13	-.11	.19	.12	.05	.12	.16	.24	.21	-.03	-.04	.06
4. Police Service tenure (years)	6.68 (5.70)				.na	.52	.45	.29	-.12	-.18	.01	.19	-.18	.19	.13	.22	.15	.04	-.00	.05
5. Public Service tenure (years)	11.03 (8.19)					.na	.25	.23	-.06	-.03	.02	.16	-.09	.05	.08	.20	.08	.04	.02	-.07
6. Positional tenure (years)	3.99 (2.95)						.na	.13	-.18	.06	-.08	-.13	-.26	-.01	-.06	-.03	.06	-.06	.12	-.05
7. Investments	6.31 (1.54)							**.74**	-.26	-.08	.01	.12	-.04	.47	.27	.18	-.05	-.09	.21	.16
8. Self esteem	1.60 (0.49)								**.85**	-.14	-.00	-.19	-.16	-.20	-.06	-.05	.02	.19	.06	-.03
9. Tenure-related: Job availability	5.04 (1.65)									.na	-.09	-.04	-.07	-.02	-.03	-.21	-.03	.17	.22	-.15
Formal Organisational ~~Characteristics~~ Climate																				
10. Communication: Quality	2.82 (0.47)										**.36**	.27	.33	-.06	.01	.11	.24	-.19	-.33	.37
11. Information exchange	3.31 (0.88)											**.71**	.57	.21	.20	.41	.39	-.49	-.47	.42
12. Perceived organisational support	3.47 (1.24)												**.94**	.17	.17	.16	.38	-.52	-.59	.59
Informal Organisational ~~Characteristics~~ Climate																				
13. Commitment norm: Self	5.26 (1.63)													.na	.59	.35	.20	-.20	.12	.25
14. Peers	4.58 (1.47)														.na	.49	.31	-.20	.11	.27
15. Supervisor	5.24 (1.53)															.na	.46	-.31	-.09	.28
16. Senior officers	5.03 (1.47)																.na	-.20	-.22	.36
Role Characteristics																				
17. Role ambiguity	3.12 (1.17)																	**.84**	.59	-.42
18. Role conflict	4.21 (1.34)																		**.88**	-.35
Met-expectations																				
19. Confirmed expectations	3.50 (1.52)																			**.66**

[a] For $r > .25$, $p < .01$; for $r > .30$, $p < .001$. Internal consistency, as measured by Cronbach's alpha, are reported in the first diagonal.

Note: na = Not applicable; Cronbach's alpha cannot be calculated for single item measures.

To compare the absolute commitment levels of the police and the nonsworn samples with tenure, the nonsworn employees were assigned to groups on the basis of their tenure in the police organisation. Those who belonged to the same cohorts as the police sample in 1996 (i.e., those with from 3 to 9 and 17 to 19 years of experience) were included in the analysis. Unfortunately, there were a limited number of nonsworn employees who fell into each cohort, particularly in the qualified sample. The mean levels of commitment reported by these employees are shown in Figure 7.1.



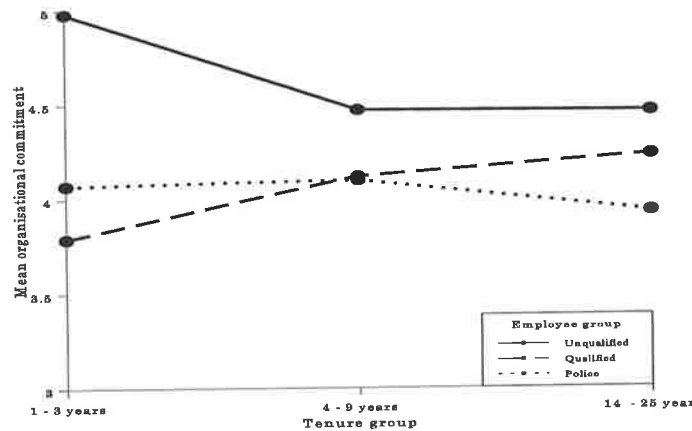
		Nonsworn employee group								
		Unqualified			Qualified			Police		
Cohort	Tenure (years)	M	(SD)	n	M	(SD)	n	M	(SD)	n
1.	3	4.74	(1.24)	18	4.19	(1.20)	7	4.07	(1.09)	48
2.	4	4.23	(1.40)	23	3.97	(0.83)	5	4.33	(0.97)	43
3.	5	4.21	(1.06)	27	4.07	(1.11)	9	4.28	(1.17)	54
4.	6	4.58	(0.91)	62	4.11	(1.19)	16	3.93	(1.27)	43
5.	7	4.62	(1.22)	48	4.39	(1.08)	9	3.95	(1.24)	55
6.	8	4.42	(1.29)	34	4.16	(1.84)	7	4.02	(1.21)	55
7.	9	4.45	(0.95)	17	3.81	(0.89)	5	4.14	(0.90)	54
8.	17	4.37	(0.85)	9				4.05	(1.02)	63
9.	18	4.66	(1.18)	9				4.01	(1.25)	66
10.	19	5.07	(0.60)	5				3.72	(1.27)	58

Figure 7.1. Mean levels of organisational commitment for police employees by years of service (cohorts).

Since there were no respondents in the last three cohorts for the qualified group, a 3 (Employee group) by 7 (Cohort) analysis of variance was conducted to compare the commitment levels of the three employee groups (qualified nonsworn, unqualified nonsworn and police officer) across the period of service from three to nine years. A significant main effect was obtained for employee group ($F_{(2,648)} = 9.11$; $p < .001$). Neither the main effect for cohort nor the interaction effect were significant (refer to Appendix 7.3). Post hoc (Scheffe) tests indicated that the unqualified group had higher levels of commitment than the police officers ($M_{Unqualified} = 4.51$, $SD = 1.12$; cf $M_{Police} = 4.04$, $SD = 1.15$). The smaller sample of qualified nonsworn employees did not differ significantly from either of the other two groups, but fell closer to the police sample ($M_{Qualified} = 4.13$, $SD = 1.15$). The absence of a main effect for cohort suggests that there is no developmental trend in the commitment of nonsworn members between three and nine years of employment in the police organisation.

The result should be interpreted with caution for several reasons. The data are cross-sectional and may therefore, be subject to confounding by cohort effect (see Chapter 3). Furthermore, the number of individuals in each of the cohorts for the qualified nonsworn sample was limited (i.e., $n = 5$ to $n = 16$). Finally, unlike this cross-sectional data, the correlational data (which encompass a greater range of tenure) suggest that there are trends in the development, with an indication that commitment increases with tenure in the qualified nonsworn sample and, conversely, decreases with tenure in the unqualified sample. In view of this, the absence of a developmental trend in the cross-sectional data may actually be the result of attenuation of the tenure in the present analysis (i.e., since it was restricted to less than 9 years of tenure).

To overcome the problems of sample size and attenuation, the members of each of the three employee groups were assigned to three groups: 1 - 3 years of tenure; 4 - 9 years of tenure; and 14 - 25 years of tenure. This division captures the distinctions identified in the developmental trend where police officers with less than three years of service



Group	Tenure (years)	Nonsworn employee group: Unqualified M	(SD)	n	Qualified M	(SD)	n	Police M	(SD)	n
1.	1-3	4.98	(1.14)	83	3.79	(1.23)	32	4.07	(1.09)	48
2.	4-9	4.47	(1.13)	211	4.12	(1.17)	51	4.10	(1.14)	304
3.	14-25	4.46	(1.13)	80	4.23	(1.60)	4	3.93	(1.19)	187

Figure 7.2. Mean levels of organisational commitment for police employees by grouped years of tenure.

reported significantly higher levels of commitment than the officers with greater then 14 years of service. Furthermore, it enables the nonsworn samples to be compared with the police sample. The means for these groups are shown in Figure 7.2.

The results of a 3 (Tenure group) by 3 (Employee group) analysis of variance reveal a significant interaction effect ($F_{(4,999)}$ = 2.77, p = .03; Appendix 7.4). A series of post hoc (Oneway ANOVA) tests provided an indication of the reason for this interaction. Essentially, while neither the police nor the qualified nonsworn employees demonstrated differences across the three tenure groups ($F_{(2,538)}$ = 1.30, p = .27; and $F_{(2,86)}$ = 0.80, p = .45, respectively), there was a significant decrease in the commitment levels of the unqualified group between the 1-3 years and the 4-9 years of service groups ($F_{(2,373)}$ = 6.77, p = .001). The interaction effect resulted because this decrease took the level of commitment of the unqualified nonsworn group from being significantly higher than both the qualified nonsworn group and the police group, to being significantly higher than

the police group only.[34] This result suggests, within the limits of cross-sectional data, a developmental trend similar to that obtained with the police sample prior to the occurrence of the Royal Commission (i.e., in 1994). The trend is for high levels of commitment initially, followed by a decrease with tenure. This result supports the hypothesis that something related to the police organisation rather than unique to the police role, is responsible for the trend found in the commitment of the police officers and the unqualified staff.

On the other hand, it is interesting to note that there does appear to be a (nonsignificant) trend for the commitment of the qualified nonsworn employees' levels of commitment to increase with tenure (see Figure 7.2). This result is more consistent with the findings of previous literature (e.g., Mowday et al., 1982). It suggests that something specific to these qualified employees influences the development of their organisational commitment, overriding the influence of the police organisation.

To summarise, there appears to be two distinct developmental trends in the commitment of police employees. Specifically, a decrease in commitment with tenure is reported for police officers and for a group of nonsworn employees (those who do not hold tertiary qualifications at the level of Bachelor degree or above). This would suggest that it is factors associated with the police organisation, rather than factors associated with the police occupation, that are responsible for the developmental trend in commitment in these two occupational groups. On the other hand, another occupational group of nonsworn employees (i.e., those with qualifications above the level of Bachelor degree) report no significant change in commitment levels with tenure, although there is some slight indication of a positive increase with increasing tenure. This suggests that not all employees of the police organisation are influenced by the same organisational factors,

---

[34] Note that the levels of commitment reported by the unqualified nonsworn employees in the first three years of their employment are highly similar to the levels reported by police officers with between 1 and 3 years of tenure in 1994. As a consequence of the time of measurement (i.e., 1996), the police sample shown in Figure 7.2 as having tenure ranging from 1 to 3 years actually have between 2.5 and 3 years service. Ideally, the comparison should have included police officers with between 0 and 2.5 years of service, but these data were not collected in 1996 as part of the cross-sequential design.

and that the holding of degree or post-graduate qualifications somehow distinguishes this group from other employees in the police organisation. In other words, occupational group was important to the development of organisational commitment. The next step in the examination of these trends is to identify the factors that are linked to individual levels of organisational commitment, and to highlight any differences that may explain, in part, the differences in both the absolute levels of commitment reported by the groups and in the developmental trends for each.

(iii) Factors Influencing Absolute Levels of Organisational Commitment

A series of hierarchical regressions was conducted to determine which personal, organisational and role characteristics influenced individual levels of organisational commitment in each of the two nonsworn groups. The results of these regressions (Table 7.3) can be compared with those of the regression conducted for the police sample in 1996 (refer to Chapter 4.3.(iii).(c) and see Table 4.12).

Overall, the results of the regressions are comparable with those of the police officers in 1996. Specifically, the majority of the variance in commitment levels in both of the samples is accounted for by perceptions of organisational support for the individual (39% and 40% for the qualified and unqualified samples respectively), personal commitment norm (12% and 14%), confirmation of expectations in general (5% and 3%), and feeling of role ambiguity (3% and 1%). An additional small, but significant, amount of the variance in the qualified sample was accounted for by the perception that communication systems were appropriate and valuable (3%), and in the unqualified sample by a feeling that investments had been made in the organisation (1%).

Overall, the results of these regressions indicate that a variety of personal, formal organisational, informal organisational and role-related characteristics influence overall levels of organisational commitment of nonsworn police employees. In general, the relationships between these factors and commitment do not seem to differ according to the occupation of the employee. Furthermore, these factors are the same as those that influence the commitment of police officers. However, within the qualified sample, the

relationship between commitment and the perception that communication is valuable and appropriate, in combination with the absence of a relationship between commitment and investments, may partially explain the difference in the developmental trend for this group of police employees. This explanation would be consistent with Mathieu and Zajac's (1990) contention that individuals with qualifications are less likely to become entrenched in the organisation, as a result of their potential job mobility.

Table 7.3.
Summary of Hierarchical Regression Analysis for Factors Explaining Organisational Commitment of the Nonsworn Police Employees.

Factor	Qualified (n = 89)		Unqualified (n = 442)	
	β	R^2_{cha}	β	R^2_{cha}
Step 1				
Tenure	.05	.001	-.13	.015**
Step 2				
Perceived organisational support	.25	.392***	.38	.403***
Organisational commitment norm (self)	.35	.119***	.32	.135***
Confirmed expectations	.19	.053**	.16	.026***
Role ambiguity	-.22	.029*	-.10	.007**
Communication: Quality	.18	.026*		
Investments			.10	.009**

Note. R^2 = .59 and R^2_{adj} = .57 [$F_{(5,83)}$ = 24.24, $p < .001$] for the Qualified sample; R^2 = .60 and R^2_{adj} = .59 [$F_{(6,435)}$ = 106.82, $p < .001$] for the Unqualified sample.
*$p < .05$, **$p < .01$, ***$p < .001$.

To determine whether differences in the absolute levels of the factors that formed the regression equation might explain differences in absolute levels of organisational commitment, a series of independent t-tests were conducted on these factors. Of the four factors common to the two equations, significant differences emerged only for confirmed expectations ($M_{Qualified}$ = 3.58, SD = 1.26, cf. $M_{Unqualified}$ = 4.02, SD = 1.41; t = 2.45, p = .01) and role ambiguity ($M_{Qualified}$ = 3.10, SD = 1.20, cf. $M_{Unqualified}$ = 2.82, SD = 1.12; t = 2.03, p = .04). The test for personal commitment norm approached significance ($M_{Qualified}$ = 5.24, SD = 1.65, cf. $M_{Unqualified}$ = 5.58, SD = 1.38; t = 1.92, p = .06), whereas the test for perceived organisational support did not show a difference between the two groups ($M_{Qualified}$ = 3.39,

SD = 1.26, cf. $M_{Unqualified}$ = 3.56, SD = 1.25; t = 1.09, p = .280). Although these results are not adequate evidence of a definitive relationship, they suggest that the higher levels of role ambiguity and lower levels of confirmed expectations reported by the qualified nonsworn employees may explain why their overall levels of commitment are lower than the commitment reported by the unqualified nonsworn employees.

4. Conclusion

The aim of this study was to determine whether the negative trend in commitment reported by Australian police officers is primarily a function of the police organisation or of the police occupation. Nonsworn employees in the police organisation provide a comparison data set with which to study this question.

To summarise the results of this study, commitment was not influenced by status associated with the nonsworn employees' position. In other words, whether an individual was a senior manager or a clerical assistant did not influence their commitment level. This finding is consistent with the results obtained in Chapter 4 with the police sample (i.e., rank was not important in the explanatory regression for organisational commitment).

On the other hand, the commitment levels of the unqualified nonsworn employees were significantly higher than those of both the qualified nonsworn employees and the police officers. On the basis of previous work, it was hypothesised that the levels of commitment reported by the unqualified nonsworn employees would be similar to those of the police employees, and that the qualified (professional) nonsworn employees would report either higher or lower levels of commitment. In view of the present findings, it appears that the push to professionalise policing has had an impact on the work-related attitudes of police officers. Their absolute commitment levels are more like qualified employees than unqualified employees. The fact that these two "professional" groups have lower levels of commitment than the "nonprofessional" group suggests that Mathieu and Zajac (1990) were correct when they proposed that professionals would have lower levels of commitment either because they held higher expectations about the

organisation (and which the organisation was unable to fulfil) or because they were likely to have a greater number of job options and, as a result, are less likely to become entrenched in (i.e., committed to) the organisation.

The results of the regressions looking at factors related to individual levels of commitment in the samples, indicated that the degree to which expectations about the organisation were confirmed explained significant amounts of the variation in the commitment of police employees. However, perception of job alternatives did not enter the regression equations and did not, apparently, help to explain individual differences in organisational commitment levels.[35] On this basis, it could be argued that Mathieu and Zajac (1990) were only partially correct, and that although confirmed expectations do influence the development of commitment in professional employees, the perception of job mobility does not. Although somewhat contrary to Mathieu and Zajac's understanding, this is consistent with Meyer, Allen, and Gellatly's (1990) contention that job alternatives impact on continuance commitment rather than affective commitment.

The third result of interest is that, within the limits of cross-sectional and correlational data, there is evidence that the commitment levels of unqualified nonsworn employees of the police organisation begin high and decrease with experience. This trend is similar to the trend found in the police data, and suggests that factors linked to the police organisation, rather than to the police role, are in some way responsible for this trend. On the other hand, the commitment levels of qualified nonsworn employees tend, although not significantly, to increase with tenure. This is more consistent with previous research and also suggests that some factors linked to their occupation (or possibly their qualifications), rather than to the organisation, may also be influencing the commitment levels of these police employees.

The results of the regression analyses do not illuminate any reason for the

---

[35] Furthermore, the availability of job alternatives is unlikely to be influential in the case of police officers, because there are no alternative organisations in which they may be employed as police officers. In view of this, the hypothesis that professionals hold expectations about the organisation which cannot be met by the organisation, is the more probable explanation for these employees.

differences in the trends. However, some suggestions could be advanced. First, as with the police recruits (see Chapter 6), it is possible that the trend in the unqualified employee sample reflects to some degree the difficulty of obtaining employment in a public service position without qualifications. These unqualified nonsworn employees may have been exposed to a highly competitive selection process. High levels of commitment may be a consequence of the process in two ways. First, only the individuals who are most committed to the organisation are likely to persevere throughout the process. Alternatively, commitment may be high as a response to actual selection (i.e., "the organisation has selected me as an employee, I must be committed to the organisation"). However, as experience with the organisation increases, levels of commitment decrease.

On the other hand, the qualified employees are less likely to find the selection process traumatic, as it is highly likely that they were hired for specific positions. As a consequence, their initial commitment levels may not be as high as the unqualified employees. The fact that their commitment tended (although not significantly) to increase with tenure may reflect an increase in specialisation as a result of their qualifications. Wallace (1995) found that specialisation within a group of professionals increased their task variety and, thereby, increased their commitment to their employing organisations. She concluded that "specialization is a desirable characteristic of professional work" (p. 248). This may also explain why the police trend, although at the same absolute levels as the professional nonsworn employee group, decreased with tenure. Specifically, if the police officers thought of themselves as professional, yet did not experience specialisation as a component of their experience with the organisation, their commitment levels would be expected to decrease.

An alternative explanation of the similarity of the trends reported by the police and unqualified samples can be proposed. Katz and Kahn (1978) state "that personal conviction and group support do interact, and most people over time bring their private beliefs into line with some of the social realities constituted by the opinions of others"

(p. 387). One of the critical elements in this attitude change is that people are able to identify the opinions of others. This is much more likely to happen in tight-knit social groups. In the present study, the police officers had high levels of social interaction with other police. Furthermore, it is possible that the unqualified nonsworn employees also had a close-knit social group, often including police officers. However, the qualified nonsworn employees were more of a minority and, given the professional nature of their roles, are less likely to have had strong social links with the other groups. Therefore, there are likely to be stronger norms in the police officer and unqualified nonsworn groups than in the qualified nonsworn group, and the attitudes of the former may have been more influenced by their experienced, and less committed, counterparts.

Overall, the results of this study provide few answers to the questions raised. Specifically, it appears that there is an interactive effect in which organisational and occupational factors influence the development of commitment in police employees. Furthermore, the results of this study indicate that factors other than those measured in the present study may be responsible for these differences. Within the confines of the factors measured in the present study, however, it seems that the organisational commitment of all of the employees of police organisations are influenced by their perceptions of organisational support, confirmed expectations, and role ambiguity. The next chapter reports a reanalysis of the results from Chapter 4 that further examines these relationships.

Chapter 8

Exploratory Structural Equation Modelling of the Factors Influencing Individual Levels of Organisational Commitment

1. Introduction

Within this thesis, a model of the development of affective organisational commitment has been outlined in which the antecedent factors are components of the individual's experience of different aspects of the organisation: formal characteristics, informal characteristics, and job (role) characteristics. Given that, prior to this study, no-one had designed and tested measures of "experience" with the organisation, experience of the formal organisation had to be operationalised using measures of different characteristics of leadership style (e.g., participatory decision-making) and structural constraints (e.g., information exchange systems). Similarly, experience of the informal organisation was operationalised using measures of different peer group and supervisor characteristics (e.g., peer cohesion and commitment norm). Finally, experience of the work itself was operationalised using measures of role ambiguity and role conflict.

The regressions conducted in Chapters 4, 6 and 7, as well as the qualitative data content analysis reported in Chapter 5, indicated that factors from each of these experience categories were related to individual levels of organisational commitment. This provided preliminary evidence that experiences of different aspects of the organisation are influential in the development of organisational commitment. However, the regression analyses did not allow an examination of the degree to which the observed (measured) factors measured the hypothetical (latent) constructs of "experience". Furthermore, the regressions did not allow an assessment of the relationships between the latent experience constructs and organisational commitment.

The problems of measuring latent factors and the relationships between them have been recognised in previous research and have encouraged the development of structural equation modelling and associated statistical analysis tools (Mueller, 1996). One of these tools has been incorporated into the LISREL computer program (Jöreskog &

Sörbom, 1993). LISREL allows the analysis of two components of a structural equation model: a measurement model and a structural-relations model. The measurement model component specifies how latent or hypothetical constructs are measured in terms of observed variables, and describes the measurement properties (reliabilities and validities) of the observed variables. Essentially, it tells the researcher how well the observed measures actually measure the attitude, feeling or motivation that is being studied. The structural-relations model component enables the researcher to specify causal relationships among latent variables and subsequently describes the causal effects among these variables. This component addresses the problems of inferring complex causal relationships among variables that are not directly observed (but are reflected in fallible indicators) and of assessing the strength of these relationships. In summary, LISREL is a statistical technique that enables the researcher to test theoretical structural equation models, describing relationships between observed and latent variables, and that can provide statistical support for causal inferences about these relationships.

The data collected for the present study were not experimental and therefore could not be used to prove that certain factors are responsible for the development of organisational commitment in police organisations. However, the nature of the major data set was suitable for an exploratory analysis to be conducted using LISREL, providing additional information about the relationships between commitment and the factors shown to be linked to individual levels of commitment.

There are essentially two steps in the use of structural equation modelling for the purpose of detecting potentially causal relationships. The first is to build one or more theoretically-based models, incorporating both observed and (if necessary) latent variables. The second is to apply an appropriate analytical tool to the data. The manner in which this was achieved, for the study of relationships between experience and organisational commitment, is described in the next section.

2. Model Development

Many authors are adamant that the development of multivariate models must be based firmly on substantive theory (see Mueller, 1996). The model of the development of affective organisational commitment, outlined in the present study, was firmly based on theory and previous empirical research (see Chapter 2). Furthermore, some of the results reported in this thesis provide preliminary evidence that experience of different aspects of the organisation influence the development of commitment.[36] However, as previously discussed, "experience" was not measured per se, but was operationalised using a range of different measures. In other words, for the present study "experience" was considered to be an underlying construct, measured as a conglomerate of various aspects of the individual's interaction with the organisation. Within structural equation modelling, this type of factor is known as a latent variable.[37] Path diagrams can be constructed that include latent variables, and that predict relationships between latent variables.

A number of different models could be tested within the longitudinal data set (see Chapter 4). First, there were measurement models, testing the degree to which the scales (i.e., the measures selected to operationalise each of the experience aspects) measured the latent variables, for each of the cross-sectional data collections (i.e., 1994, 1995 and 1996). Second, there were structural-relations models that posited the relationships between the latent variables and organisational commitment at each time of

---

[36] Marcoulides and Heck (1993) warn that "caution must be exercised in employing structural equation models to test substantive theories, as omitted variables and poor measurement of variables included are common sources of misspecification in a model and can produce misleading results" (p. 220). It is acknowledged that important variables linked previously to the development of affective organisational commitment have been left out of this study (e.g., job satisfaction, shown to mediate the relationships between commitment and its antecedents in newcomers to an organisation by Farkas and Tetrick [1989] and Mathieu [1991]). However, the theoretical approach adopted for this thesis concentrated on employees' experiences of different aspects of the organisation, and how the type of experience (i.e., of the organisation, of the work, of the work environment) impacts on the development of their organisational commitment. Although, future work may find other aspects of experience that should be included in this model, the model incorporates as many aspects of the employees' experience of the organisation as can be found in previous empirical research and theory.

[37] Jöreskog (1979) suggested that latent variables require more than one indicator (observed factor) to be measured in order to reduce measurement error. In the present study, each of the experience factors (formal, informal and role) was measured using more than one observed factor.

measurement. Finally, there was a structural-relations model that examined the relationships between the latent variables and organisational commitment over time (i.e., the longitudinal model).[38]

The need for three different measurement models was a result of the selection of measures for the study. As a result of preliminary analysis of the 1994 data, different measures were included in the data collections of 1995 and 1996. This is not an ideal situation for the longitudinal model, since the model changes for each year. However, as this study was designed primarily to assess the developmental function of organisational commitment, with the secondary aim of determining the greatest possible number of antecedents, the analysis of three different cross-sectional models may provide valuable information enabling future research to make decisions about the factors that should be included, and excluded, from models of the development of organisational commitment.

In general, the models to be tested in this analysis were consistent with the model outlined in Chapter 2 (see Table 4.15). However, the factors included in the Personal Characteristics category were divided into two groups, one of which was included in the modelling and the other that was not. Excluded from the experience models were demographic variables that are independent of experience of the organisation (e.g., age, gender, rank, posting and positional tenure). However, included in the analysis, and labelled Personal attitudes, were attitudes that may be linked to experience but which are independent of a specific aspect of the organisation (e.g., cynicism, self esteem and work ethic). Overall, therefore, the latent variables within each of the models to be tested

---

[38] Although LISREL could be used to test the measurement model for each observed variable (i.e., tests the relationships between scale items and the scale), this makes the number of equations that need to be solved enormous. Furthermore, this level of measurement model is not of interest in the examination of the relationships between the latent variables (see Meyer, Allen, & Gellatly, 1990). Hair, Anderson, Tatham, and Black (1995) stipulated that in this type of situation it is acceptable for the researcher to specify the reliabilities for the measurement model, assuming that the scales being used have been used and validated in previous studies. To fix the reliability for an indicator, the error term is set to 1.0 minus the known reliability index. Fixing the measurement error variances reduces the number of unknowns within the model and allows the remaining unknown coefficients to be calculated. In the present analysis, reliabilities had been calculated for each of the scales measuring the observed variables. These reliabilities (see Tables 4.2, 4.9.a and 4.9.b) were used to set the error variance of the observed variables.

were (i) Personal attitudes, (ii) Experience of formal organisational characteristics, (iii) Experience of informal organisational characteristics, and (iv) Experience of the role (i.e., the work itself).

The combined measurement and structural-relations models for data collections 1994, 1995 and 1996 are shown in Figures 8.1, 8.2 and 8.3 respectively.[39] (For simplicity, the error terms are not presented in the figures.) As can be seen in the figures, the measurement models consist of paths where each of the observed variables (for the most part measured using multi-item scales) was hypothesised to measure one of the latent variables. So, for example, perceived organisational support is linked to formal organisational experiences via a path. In the structural-relations models, the latent factors were hypothesised to impact on commitment. The latent Commitment factor was measured using the OCQ scores.

The longitudinal structural-relations model is shown in Figure 8.4. Although the analyses included both measurement and structural-relations models, only the structural-relations model is presented in Figure 8.4. (The measurement models are those presented previously in Figures 8.1, 8.2 and 8.3.) In the model, each of the latent factors assessed in 1994 are hypothesised to exert an influence on the same measures obtained subsequently. The influence of the latent factors in 1994 on the latent factors in 1996 was presumed to be mediated completely by the latent factors measured in 1995.

In summary, the theory outlined in Chapter 4 can be condensed into the models presented in Figures 8.1, 8.2 and 8.3. The following section addresses the analysis of the data set, demonstrating the fit of the data to the models.

---

[39] Models are presented as path diagrams, with standard notations. These notations include: observed factors enclosed in square boxes; latent factors enclosed in circles; one-way arrows indicate possible direct causal influences (e.g., an arrow from X to Y suggests that X leads to Y); and curved two-way arrows indicate relationships between two variables but do not infer causality. Following analysis, the coefficient associated with each arrow can be presented beside the arrow. When the coefficient is not included it is assumed to equal 1. For one-way arrows (direct causal paths), the coefficient is a standardised partial regression coefficient.

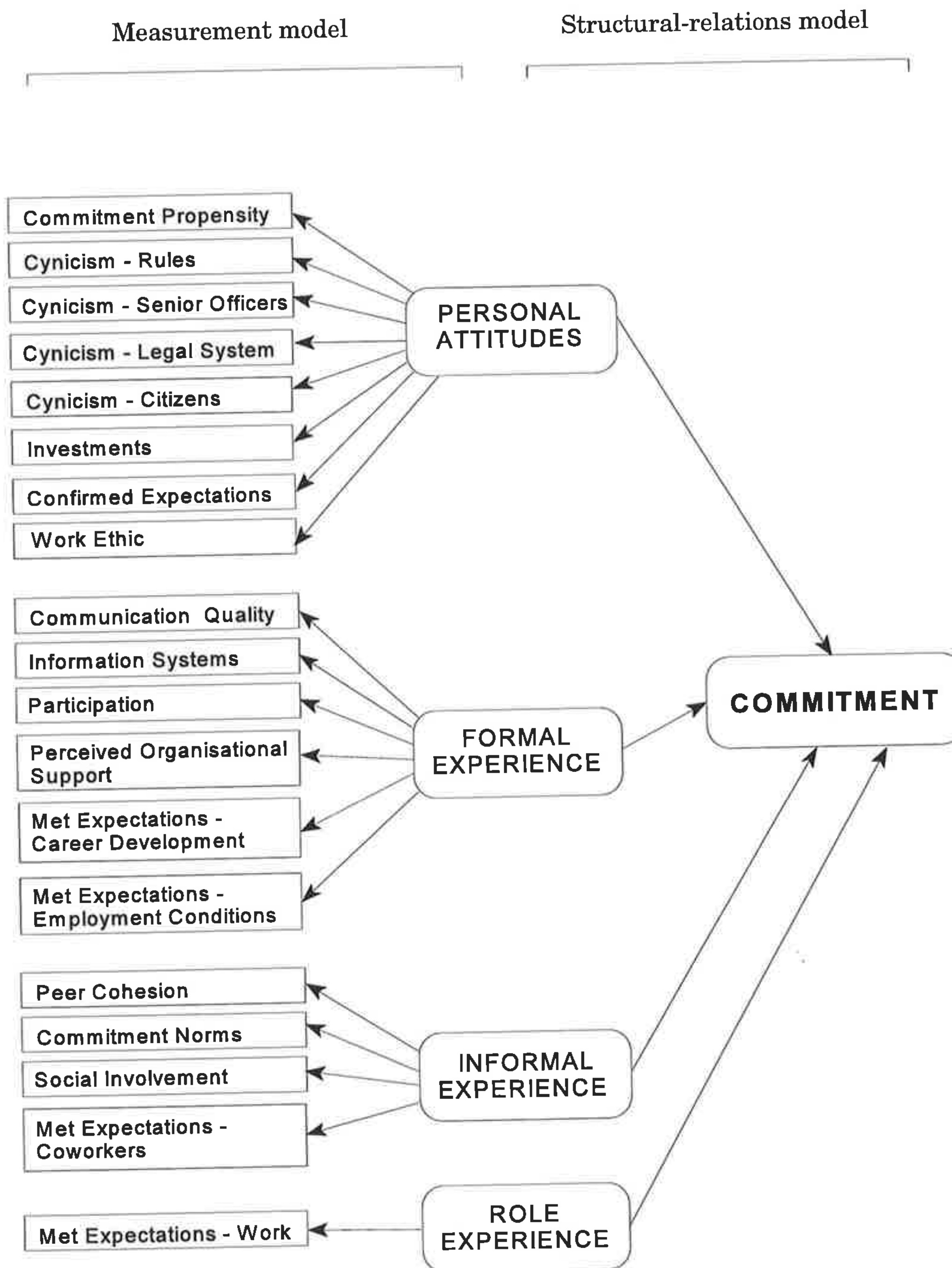


Figure 8.1. Measurement and structural-relations models: 1994. (The measurement model for Commitment [i.e., Commitment -> OCQ] is not presented here, but was included in the analysis.)

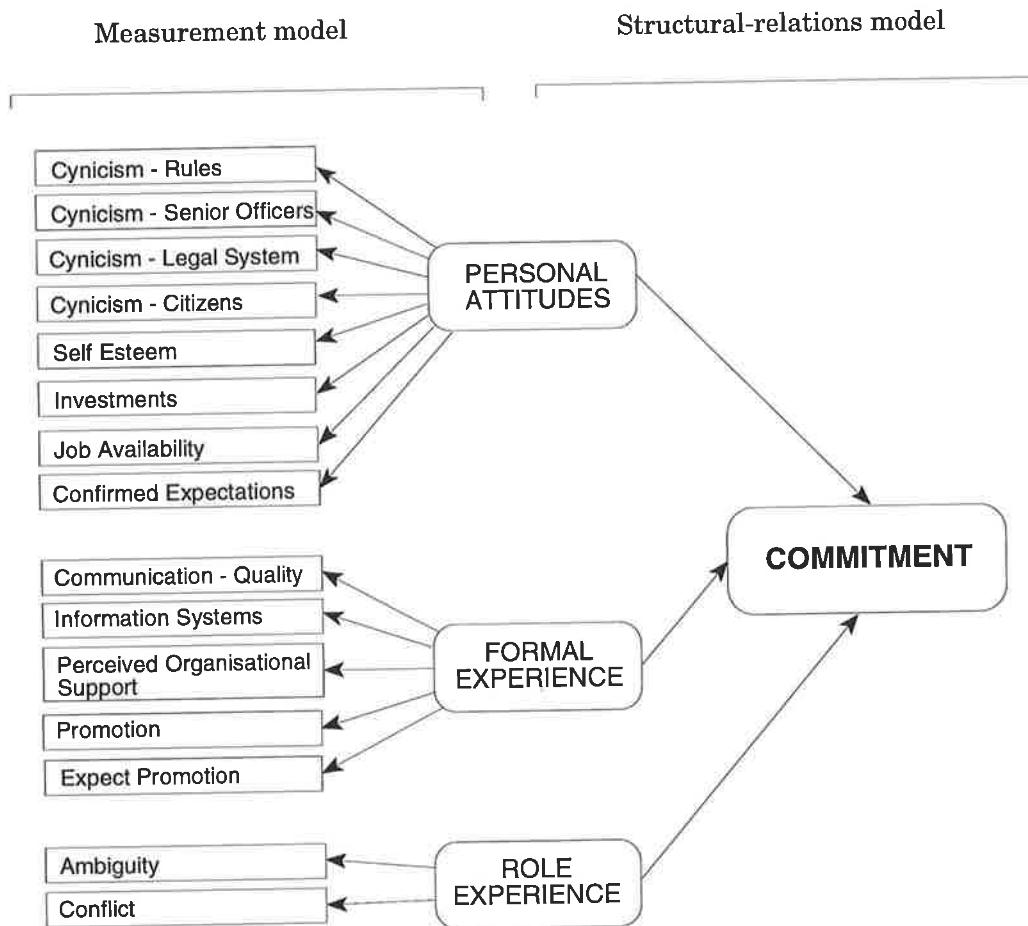


Figure 8.2. Measurement and structural-relations models: 1995. (The measurement model for Commitment [i.e., Commitment -> OCQ] is not presented here, but was included in the analysis.)

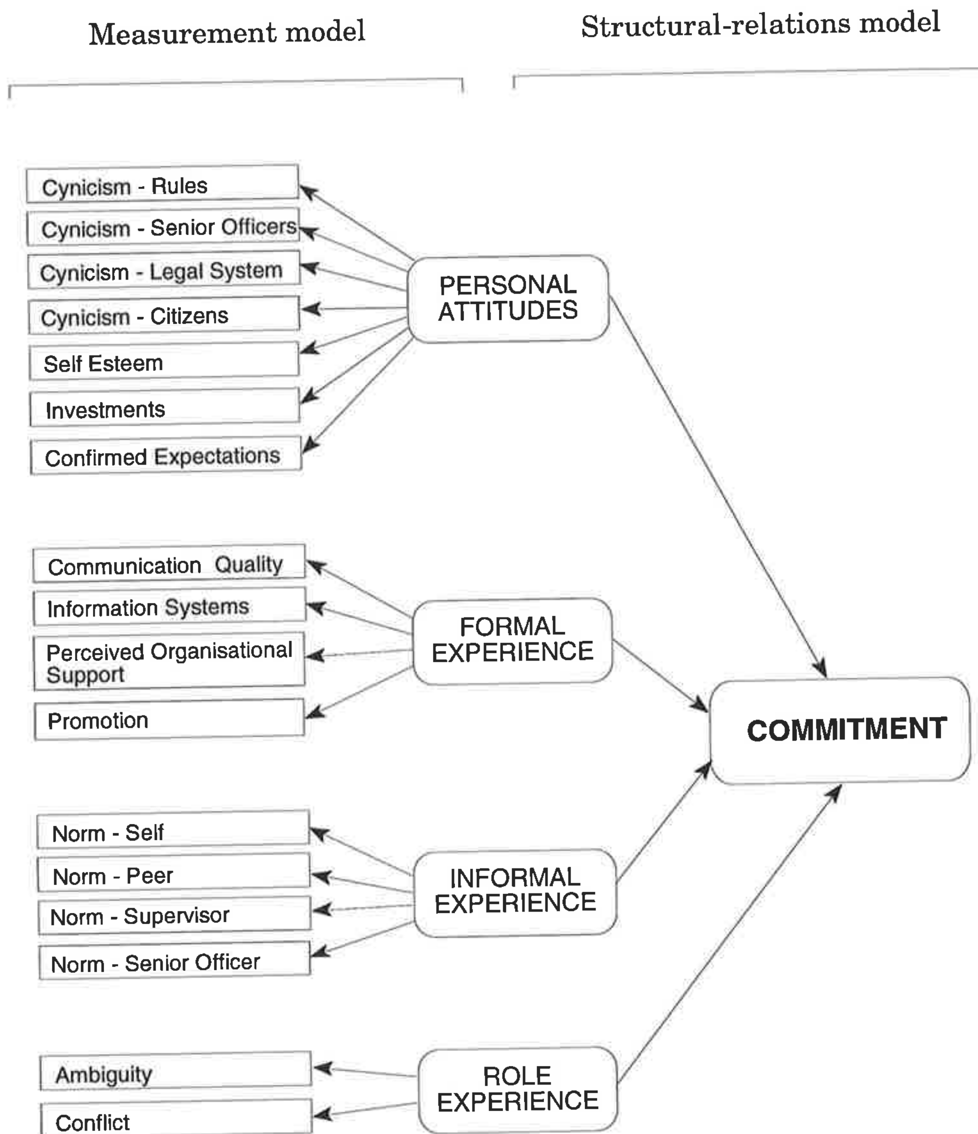


Figure 8.3. Measurement and structural-relations models: 1996. (The measurement model for Commitment [i.e., Commitment -> OCQ] is not presented here, but was included in the analysis.)

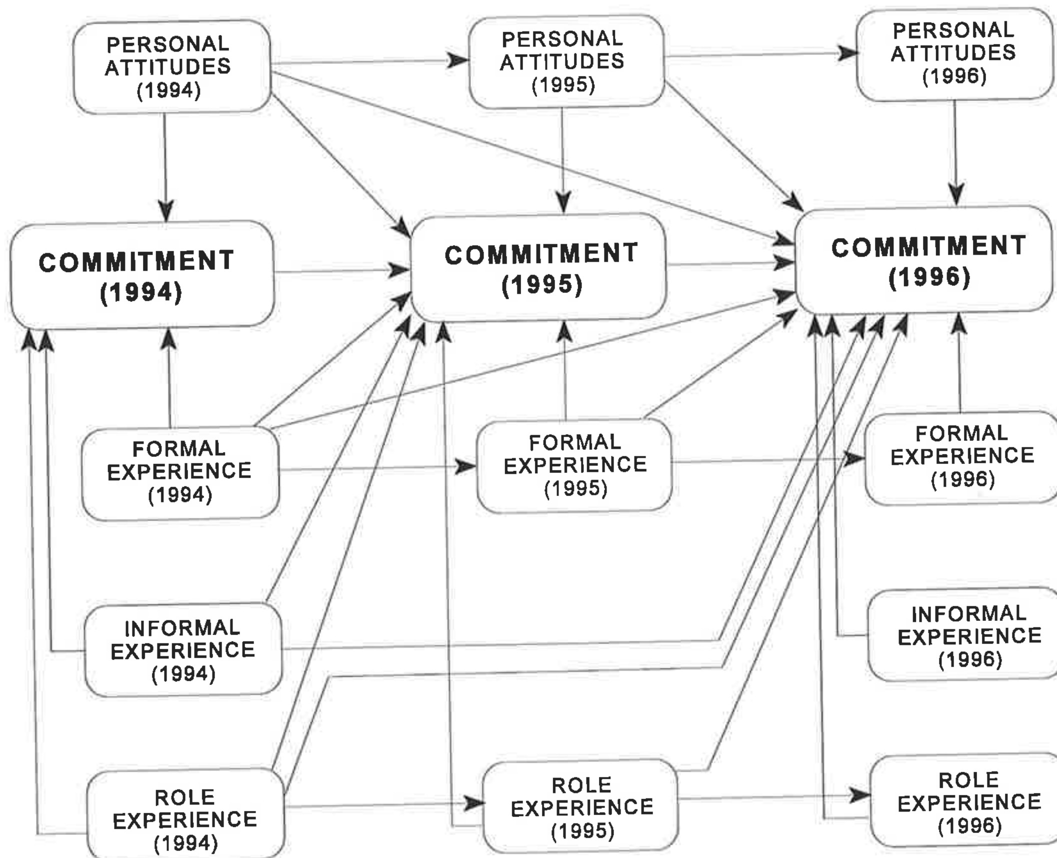


Figure 8.4. Longitudinal structural-relations model. (The associated measurement models are presented in Figures 8.1, 8.2 and 8.3.)

3. Analysis of the Models[40]

Both the measurement models and the structural-relations model among the resultant latent factors were examined through maximum likelihood parameter estimates obtained by applying LISREL to the appropriate correlation matrix.[41] Although LISREL permits simultaneous analysis of both a measurement model and the associated structural model, Anderson and Gerbing (1988) recommended using a two-step approach that ensures that the measurement models underpinning the structural-relations models are adequate. Following this advice, the analysis was conducted in three steps. The first step was an examination of the three measurement models, determining the relation of the observed (measured) variables to their respective latent constructs. Having determined the adequacy of the measurement models, the second step was to examine

---

[40] The data collected during January 1994, 1995 and 1996 were analysed using PRELIS. This program is a preprocessor for LISREL -- a program for multivariate data screening and summarisation (Jöreskog & Sörbom, 1986). PRELIS provides a range of tests of the assumptions of structural equation modelling (i.e., independent observations, random sampling, linearity of relationships between variables and multivariate normality for each variable). Underlying assumptions of independent and random sampling were ensured by the design of the data collection. Checking each of the observed variables for departure from normality and kurtosis indicated only minor instances. The output of PRELIS was a correlation matrix (including, where appropriate, product moment, polychoric and polyserial correlations) formatted for entry into LISREL. Product moment (Pearson) correlation coefficients are calculated, by the program, for the correlations between continuous variables. Polychoric correlation coefficients are calculated for the correlations between ordinal variables. Polyserial correlation coefficients are calculated for the correlations between one ordinal and one continuous variable. The recommended sample size for structural equation modelling is between 5 and 10 subjects for each parameter to be estimated (Mueller, 1996). The most complex of the models for the present study required that 88 parameters be estimated. Therefore, the minimum sample required was 440, with the actual sample equalling 479.

[41] With the examination of structural equation models, it is important that the appropriate data input matrix is used. Hair, Anderson, , and Black (1995) suggested that correlation matrices are acceptable when the researcher wants to make comparisons between the variables (i.e., wants to establish the patterns of relationships but not the causal paths), since coefficients in this type of matrix are standardised and can be, therefore, compared directly. Furthermore, Jöreskog and Sörbom (1986) stated that only correlation matrices can provide meaningful matrices when all or most of the variables in a study are ordinal, because ordinal variables do not have origins nor units of measurement. In the present study, correlation matrices were used for both practical and theoretical reasons. From a practical perspective, correlations allow the results to be more easily interpreted. From a theoretical perspective, the primary purpose of the analysis was to examine the patterns of relationships that existed among the constructs. Specifically, as previously discussed, it had been accepted that this model probably suffered from misspecification (as a result of omitted variables), a limitation that should restrict the conclusions to ones about the pattern of the relationships rather than about the predictive ability of the constructs (Hair et al., 1995). On this basis, it was clear that correlation matrices were the most appropriate for the analyses.

the structural-relations model at each of the three data collections. The final step was an analysis of the fit of the longitudinal data to the longitudinal structural-relations model.

(i) Analysis of the Measurement Models for 1994, 1995 and 1996

The analysis of each of the three measurement models was essentially a confirmatory factor analysis. However, the overall nature of the study is necessarily exploratory, since the measures selected for each of the latent factors were indicative and not exhaustive. Therefore, the parameter estimates for each of the measurement models were examined to determine whether the indicator was significantly linked to the posited latent factor (i.e., the parameter estimate is greater than twice its standard error; Anderson & Gerbing, 1988). In addition, relationships that showed large modification indices and large associated expected parameter change statistics were freed (i.e., allowed to be estimated).[23] If the changes to the model could be explained within the theory underpinning the model (rather than being a response to the statistical results alone), the models were then reanalysed and assessed for better data-model fit (see Anderson & Gerbing [1988] or Mueller [1996] for a discussion of the need for substantive explanation of respecification of measurement and structural-relations models).

Comparisons of the goodness-of-fit indices of the original and respecified models indicate which one of the models was better fit by the data. The indices of fit provided by LISREL include the Chi^2 statistic, the root-mean-square error of approximation (RMSEA), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), and the parsimonious normed fit index (PNFI).

These goodness-of-fit indices fall into three categories. First, the Chi^2 statistic, the GFI and the RMSEA are absolute fit indices. This means that they provide an indication of the degree to which the observed correlation matrix (i.e., the data) fits the overall

[23] Modification indices (MI) are estimates of the decrease in the Chi^2 goodness-of-fit measure if the associated parameter is freed to be estimated, and the expected parameter change statistics (EPC) are the estimated values of the (now free) parameter. Mueller (1996) outlines the appropriate circumstances under which a researcher may attempt to respecify their models using these estimates. Specifically, the researcher may free a parameter if the MI and its associated EPC are both large, and if the decision to free the parameter can be substantiated within the theory underpinning the model.

model. The Chi^2 statistic tests the null hypothesis that the observed matrix is equal to the estimated matrix. Therefore, the smaller the Chi^2 statistic, the closer the data is to fitting the proposed model perfectly. The GFI represents the proportion of the variance and covariance explained, so that the closer this value is to 1.00, the better the fit. However, it should be noted that there is not agreement about the size that constitutes an "acceptable" threshold value for the GFI. Finally, the RMSEA tests the null hypothesis of close fit (as opposed to the null hypothesis of perfect fit tested by the Chi^2 statistic; Browne & Cudeck, 1989). The confidence limits calculated for the RMSEA gauge how well the data fit the model. Browne and Cudeck (1989) provided the following guidelines: an RMSEA lower than .05 indicates a "very good" fit; .05 to .08 indicates a "fair to mediocre" fit; .08 to .10 indicates a "poor" fit; and a value of greater than .10 indicates a "very bad" fit.

The AGFI is a measure of the incremental fit of the model. This index compares the proposed model to a baseline (null) model[24], and determines the degree to which the proposed model is a better fit to the observed data. The AGFI adjusts the GFI for degrees of freedom used to estimate the free parameters. It is generally recommended that the AGFI should be above 0.90 if the model is considered to be an acceptable fit.

The final category of goodness-of-fit indices measure parsimonious fit, that is the goodness-of-fit of the model related to the number of estimated coefficients required to achieve this level of fit. Primarily, these measures are used to compare the fit of different models. The PNFI = $(df_{model}/df_{null}) \times ((Chi^2_{null} - Chi^2_{model})/ Chi^2_{null})$ (James, Mulaik, & Brett, 1982). Unlike the GFI and the AGFI, the PNFI begins to decrease as additional degrees of freedom are lost. Thus, in a binary comparison, the model with the higher PNFI represents a more efficient use of the data and therefore should be considered superior. When comparing models, differences of 0.06 - 0.09 are taken to indicate substantial differences between the fit of the two models.

---

[24] The baseline model is generally set to be a single latent construct that is perfectly measured by the indicators.

Overall, the goodness-of-fit indices for the measurement models may provide evidence that these models are appropriate. In other words, that the scales selected to measure the latent experience factors were acceptable measures. Respecification of these models to ensure the best fit for the data was acceptable, but must be based on substantive theory.

(ii) Analysis of the Structural-Relations Models for 1994, 1995 and 1996

Having established the measurement models that are best described by the data sets, the structural-relations models for each year were assessed (i.e., the structural-relations portion of the models presented in Figures 8.1, 8.2 and 8.3). At this point, the interest is in the degree to which the proposed model of "experience" is a better model than one in which the observed measures directly impact on organisational commitment. If the experience model is a better fit than the direct influence model, interest then lies in the parameter estimates between the latent constructs. Comparisons of the standard parameter estimates within the model should show which of the experience categories have the strongest impact on individual levels of organisational commitment.

(iii) Analysis of the Longitudinal Structural-Relations Model

Assuming that the results indicated adequate fit for the 1994, 1995 and 1996 models, the final step in the analysis would be to test the cross-lagged model presented in Figure 8.4. A comparison made between the cross-lagged model and a model in which no cross-lagged relationships were hypothesised (i.e., the relationships between experience factors and organisational commitment are posited to exist only simultaneously) would indicate which model was better described by the data. A better fit in the case of the cross-lagged model would suggest that commitment is effected by experience in a developmental manner.

4. Results and Discussion

(i) Measurement Models in 1994, 1995 and 1996

The fit indexes for the three measurement models are presented in Table 8.1 (a, b and c respectively). In each case, the fit indices are far from acceptable. Nonetheless, at

all three times of measurement, the measurement models including multiple experience latent factors were significantly better than the measurement models including a single latent variable. Therefore, a number of modifications were made for each of the multiple latent factors models on the basis of an examination of the parameter estimates and modification indices (and associated expected parameter change statistics). The respecifications are outlined for each time of measurement in turn.

Table 8.1.a

Goodness-of-Fit Tests for the 1994 Measurement and Structural-Relations Models.

Model	Chi^2	df	GFI	AGFI	RMSEA	PNFI	ΔChi^2
Measurement:							
1. Baseline (Single latent variable)	8730.24	170	0.45	0.39	0.27	-1.43	
2. Four latent variables (Fig 8.1)	5700.64	164	0.54	0.47	0.22	-0.06	3029.60
3. Respecified model (Fig 8.5)	1795.46	135	0.74	0.68	0.13	0.42	3905.18
Structural-Relations:							
1. No experience latent variables	5098.26	159	0.50	0.40	0.21	-0.26	
2. With experience latent variables (Fig 8.8)	1898.81	149	0.74	0.66	0.13	0.45	3199.45

Table 8.1.b

Goodness-of-Fit Tests for the 1995 Measurement and Structural-Relations Models.

Model	Chi^2	df	GFI	AGFI	RMSEA	PNFI	ΔChi^2
Measurement:							
1. Baseline (Single latent variable)	6983.59	88	0.41	0.30	0.33	-1.47	
2. Three latent variables (Fig 8.2)	5462.06	85	0.44	0.31	0.30	-0.92	1521.53
3. Respecified model (Fig 8.6)	1572.35	51	0.68	0.51	0.20	0.30	3889.71
Structural-Relations:							
1. No experience latent variables	2752.49	54	0.57	0.38	0.27	0.024	
2. With experience latent variables (Fig 8.9)	1686.96	60	0.68	0.51	0.20	0.36	1065.53

Note: GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, RMSEA = root-mean-square error of approximation, PNFI = parsimonious normed fit index.

Table 8.1.c

Goodness-of-Fit Tests for the 1996 Measurement and Structural-Relations Models.

Model	Chi^2	df	GFI	AGFI	RMSEA	PNFI	ΔChi^2
Measurement:							
1. Baseline (Single latent variable)	9754.62	131	0.39	0.28	0.32	-1.18	
2. Three latent variables (Fig. 8.3)	7383.67	125	0.41	0.28	0.29	-0.63	2370.95
3. Respecified model (Fig 8.7)	1987.71	84	0.69	0.55	0.18	0.41	5395.95
Structural-Relations:							
1. No experience latent variables	4909.98	105	0.52	0.37	0.25	-0.01	
2. With experience latent variables (Fig 8.10)	2146.18	95	0.68	0.55	0.17	0.44	2758.80

Note: GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, RMSEA = root-mean-square error of approximation, PNFI = parsimonious normed fit index.

(a) Measurement model, 1994. In the original 1994 model, the parameter estimate (PE) for one variable were less than twice the size of its standard error (SE); investments (PE = -0.03, SE = 0.04). Since the aim of the analysis was to determine the variables that best measured the latent experience factors, it was acceptable from a theoretical stand-point to remove these variables. An examination of the modification indices (MI), and their associated expected parameter change statistics (EPC), indicated that there was a strong relationship between the error variances of the subscales of the cynicism scale. This is not surprising, given that the subscales are purported to measure different aspects of the same construct (e.g., each of the four cynicism subscales measure a different aspect of cynicism), albeit that the subscales were found to be distinct variables in earlier factor analyses (see Chapter 4). Therefore, the error variances of the four cynicism subscales were intercorrelated (as suggested by Byrne, 1989), and the respecified model was analysed.

The results of this analysis are shown in Table 8.1.a. Once again, the fit indices suggest an inadequate fit overall. However, the difference in Chi^2 between the two models was significant, and the PNFI increased by 1.37 (i.e., more than 0.09). This indicates that the respecified model is a significantly better fit than the original model.

An examination of the PEs and MIs did not highlight any changes that could be made substantively. The standardised parameter estimates of the respecified model are shown in Figure 8.5.

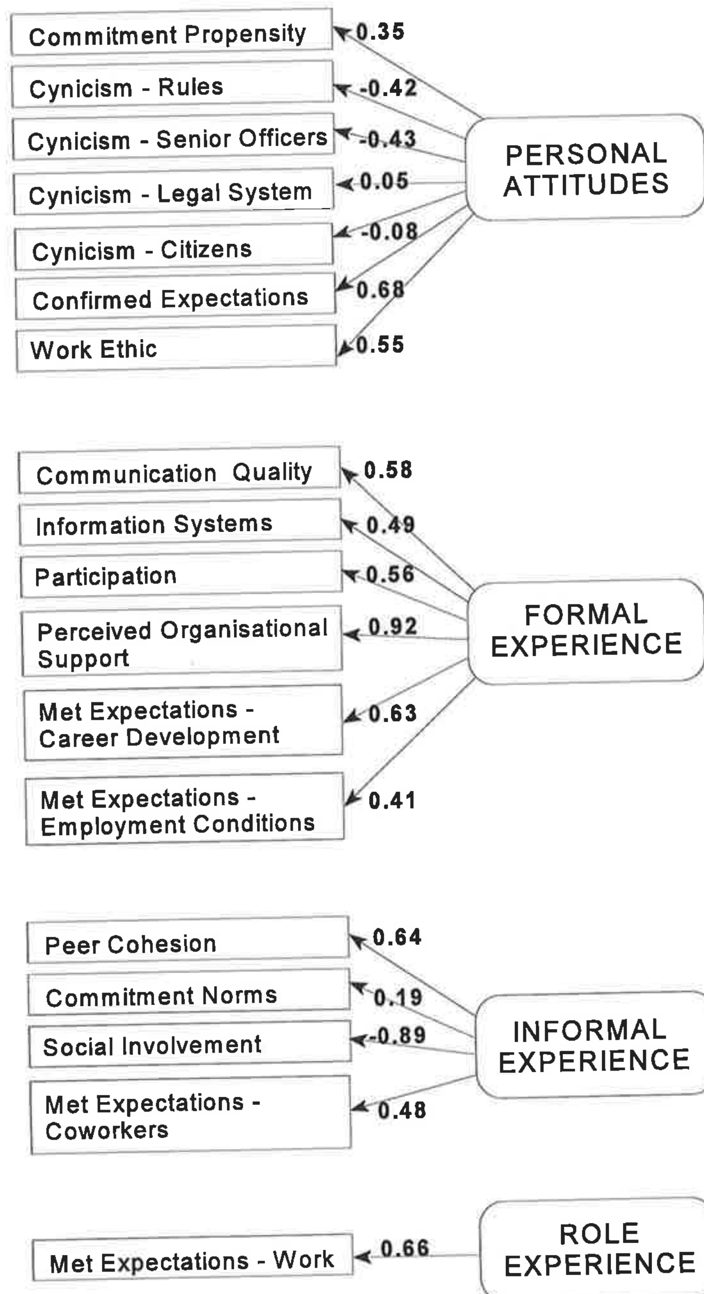


Figure 8.5. Respecified measurement model (1994) with standardised parameter estimates.

(b) Measurement model, 1995. The goodness-of-fit indices for the 1995 data are shown in Table 8.1.b. In the original 1995 model, the parameter estimate (PE) for only one of the variables was less than twice the size of its standard error (SE); job availability (PE = 0.01, SE = 0.04). As with the 1994 model, it was acceptable from a theoretical stand-point to remove this variable as it did not add to the latent variable. Also consistent with the 1994 results, an examination of the modification indices (MI), and their associated expected parameter change statistics (EPC), indicated that there was a strong relationship between the error variances of the subscales of the cynicism scales. In addition, the MIs (and associated EPCs) suggested that self esteem loaded significantly on all three factors. This tends to suggest that the self esteem scale measured something outside of the model, and did not add to the discrimination of the three latent variables. Overall, therefore, the error variances of the four cynicism subscales were intercorrelated, and both job availability and self esteem were removed from the analysis, and the respecified model was analysed. The resultant model was found to have a significantly better, albeit still poor, fit. Examination of the PEs found that all were significant. However, it appears that perceived organisational support cross-loaded onto the role experience latent variable. Although the model could be respecified, probably with an associated better fit for the data, the theory argues that the measures of the latent variables need to be keep distinct. Therefore, the measurement model was not respecified despite the poor fit. The standardised parameter estimates are shown in Figure 8.6.

(c) Measurement model, 1996. The goodness-of-fit indices for the 1996 data are shown in Table 8.1.c. In the original 1996 model, the parameter estimate (PE) for the investment measure was less than twice the size of its standard error (PE = -0.05, SE = 0.03). An examination of the modification indices (MI), and their associated expected parameter change statistics (EPC) indicated that there was a strong relationship between the error variances of the subscales of the cynicism scales and that self esteem loaded onto all three latent variables. Therefore, the error variances of the four cynicism

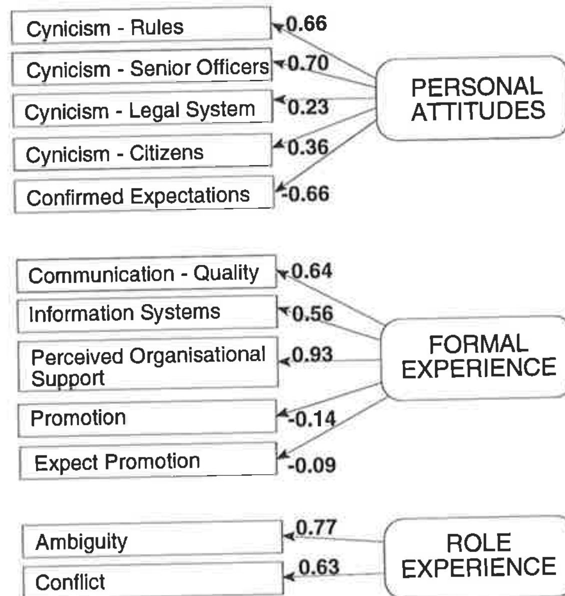


Figure 8.6. Respecified measurement model (1995) with standardised parameter estimates.

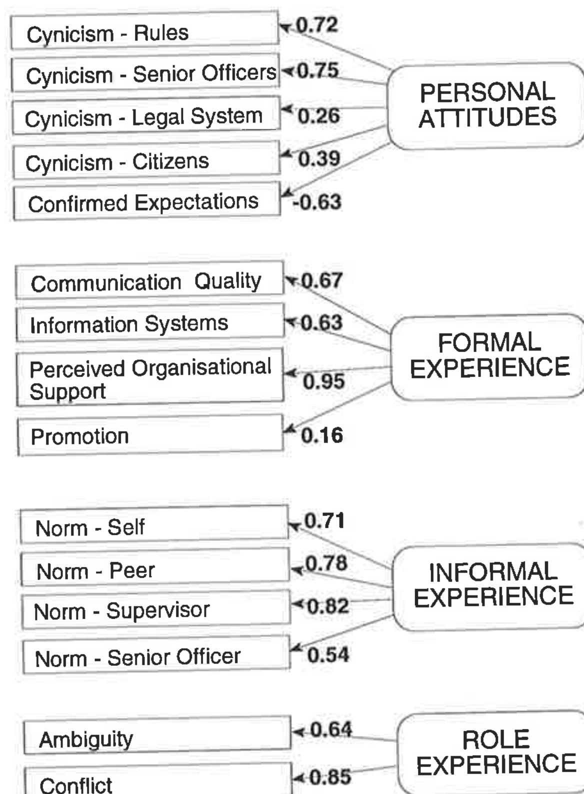


Figure 8.7. Respecified measurement model (1996) with standardised parameter estimates.

subscales were intercorrelated and self esteem was removed, and the respecified model was analysed. Once again, the respecified model showed a significant improvement in fit, but it was still poor overall. In addition, there was a significant degree of cross-loading (in this case especially for confirmed expectations). Overall, however, additional respecification of the models would be difficult to support theoretically. The standardised parameter estimates are shown in Figure 8.7.

(d) Summary of results and discussion. Overall, the data collected in 1994, 1995, and 1996 did not fit the three models particularly well.[25] However, the final models had substantially better fits than the original model in each of the three cases, and could not be improved in other than an ad hoc manner. Furthermore, the results highlighted a number of factors that should not have been included in the overall experience models (in particular, self esteem). Therefore, the structural-relations models were analysed using the final respecified models rather than the original. However, the results suggest that interpretation of the structural-relations models should be approached with caution. The inadequacy of the fit for each of the three measurement models implies that further exploration of potential measures for each of the latent experience factors may be a fruitful avenue for future research.

(ii) Structural-Relations Models in 1994, 1995 and 1996[26]

(a) Structural-relations model, 1994. The goodness-of-fit indices (Table 8.1.a) all show a significant improvement in the fit of the model incorporating multiple latent

---

[25] To some degree, the lack of fit may be linked to the number of cases and variables included in the analysis. First, the goodness-of-fit indices, and particularly the Chi^2 statistics, are susceptible to sample size (Marsh, Balla, & McDonald, 1988). In particular, large samples make it more likely that the model will differ from the "perfect fit" model (Bentler & Bonnett, 1980). Using large numbers of variables would appear to be important given the need to minimise the number of unmeasured factors in any model. However, with each additional variable, the associated addition in the number of parameters to be estimated increases. Therefore, the goodness-of-fit is likely to be reduced. In the present example, there is a large sample and numerous variables, so the fit could not be expected to be perfect.

[26] Anderson and Gerbing (1988) stated that "the pattern coefficients from the measurement model should change only trivially, if at all, when the measurement submodel and alternate structural models are simultaneously estimated" (p. 418). The parameter estimates for the measurement models within the simultaneous analysis were examined to ensure that this was true for the present study. Only minor differences were observed and, consequently, only the structural portion of the models are reported.

experience factors over the model where all of the observed variables loaded directly on commitment. For example, the Chi[2] difference between the two models was 3199.45 (p < .001), indicating a significant improvement as a result of incorporating multiple latent factors. However, as could be expected given the inadequate fit of the underlying measurement model, the overall fit was not good even for the final model (i.e., GFI = 0.74, AGFI = 0.68, RMSEA = 0.13, and PNFI = 0.45). Despite this poor fit, the standardised parameter estimates (Figure 8.8) may provide some insight into the relationships between commitment and the latent experience factors. The strongest relationship involved personal attitudes (PE = -0.62, SE = 0.14) indicating that there was a strong, negative relationship between the individual officer's negative affect (i.e., cynical outlook and feeling of unconfirmed expectations) and affective commitment. The only other significant parameter estimate indicated a positive relationship between commitment and formal experiences (PE = .26, SE = 0.09).

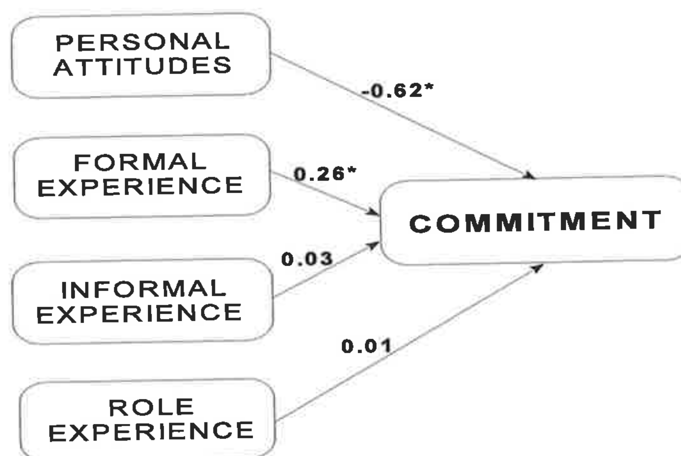


Figure 8.8. Structural-relations model (1994) with standardised parameter estimates. (* indicates a significant parameter estimate.)

(b) Structural-relations model, 1995. The goodness-of-fit indices (Table 8.1.b) all show a significant improvement in the fit of the model incorporating multiple latent experience factors over the model where all of the observed variables loaded directly on commitment. For example, the Chi^2 difference between the two models was 1065.53 ($p < .001$), indicating a significant improvement as a result of incorporating multiple latent factors. Each of the other fit indices also showed significant improvements for the second model over the first. However, as could be expected given the inadequate fit of the underlying measurement model, the overall fit was not good even for the final model (i.e., GFI = 0.68, AGFI = 0.51, RMSEA = 0.20, and PNFI = 0.36). Despite this poor fit, it is interesting to examine the standardised parameter estimates (Figure 8.9), to examine the relationships between commitment and the latent experience factors. As with the 1994 structural-relations model, the strongest relationship involved personal attitudes (PE = -0.71, SE = 0.17), indicating that there was a strong, negative relationship between the individual officer's negative affect (i.e., cynicism and feelings of unconfirmed expectations) and affective commitment. In this model, the relationship between the formal latent experience variable and commitment was significant (PE = 0.17, SE = 0.11), arguing that officers who had better experiences of formal aspects of the organisation had higher levels of organisational commitment. On the other hand, the relationship between role experiences and organisational commitment was nonsignificant (PE = 0.04, SE = 0.10).

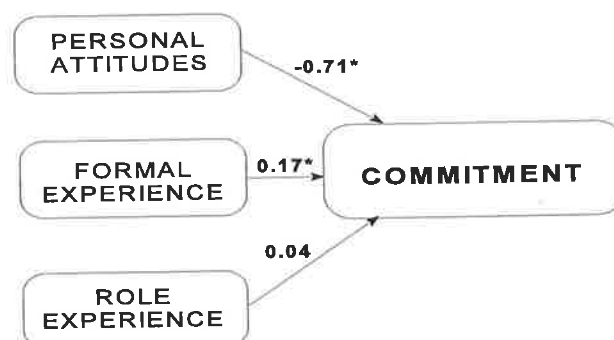


Figure 8.9. Structural-relations model (1995) with standardised parameter estimates. (* indicates a significant parameter estimate.)

(c) Structural-relations model, 1996. The goodness-of-fit indices (Table 8.1.c) all show a significant improvement in the fit of the model incorporating multiple latent experience factors over the model where all of the observed variables loaded directly on commitment. In this case, the Chi^2 difference between the two models was 2758.80 ($p < .001$), indicating a significant improvement as a result of incorporating multiple latent factors. Furthermore, all other goodness-of-fit indices showed significant improvements for the second model over the first. However, the overall fit was not good even for the final model (i.e., GFI = 0.68, AGFI = 0.55, RMSEA = 0.17, and PNFI = 0.44). As with the previous models, the standardised parameter estimates (Figure 8.10) show a strong relationship between personal attitudes and commitment (PE = -0.67, SE = 0.19). In this case, the relationship between informal experiences and organisational commitment (PE = 0.31, SE = 0.05) and between role experiences and organisational commitment (PE = 0.13, SE = 0.10) were significant, but the relationship between formal experiences and organisational commitment (PE = 0.07, SE = 0.13) was not significant.

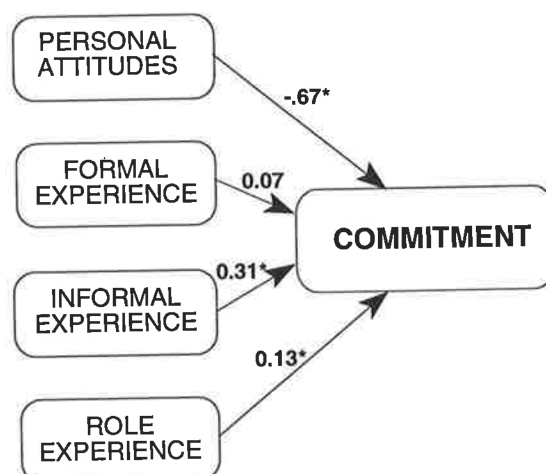


Figure 8.10. Structural-relations model (1996) with standardised parameter estimates.
(* indicates a significant parameter estimate.)

(d) Summary of results and discussion. In combination, the results of the measurement models and the structural-relations models suggest that the measures selected for the operationalisation of the latent variables were not particularly discriminatory measures of the latent variables. However, they were better measures of multiple latent variables than of a single latent variable. Furthermore, although not strong, the results indicate that relationships did exist between the latent variables and organisational commitment as hypothesised. These relationships could not be compared across the three times of measurement because of the differences in observed measures at each time. However, it appears that the most consistent relationship is between personal attitudes (operationalised by cynicism and confirmed expectations) and commitment. Overall, these results provide only weak support for the experience model, particularly because the personal attitudes factor is, in the end, not really an experience factor. Future research may find it useful to use this model as a basis for studies of antecedents of organisational commitment, albeit with the need to identify better measures of the latent experience variables.

Given the inadequacy of the measurement models underpinning each of the three times of measurement, and because the differences in operationalisation make it difficult to compare the three models, the longitudinal model was not tested. However, the relationship between personal attitudes and commitment was of considerable interest. First, the measures were collected at each of the three times of measurement. Furthermore, the relationship seems to support Niederhoffer's (1967) theory that experiences of the police organisation and police work act to change a police officer's attitude from one of commitment to one of cynicism. In view of this, a longitudinal, nonrecursive model of relationships between commitment and cynicism was developed and tested (see Figure 8.11).

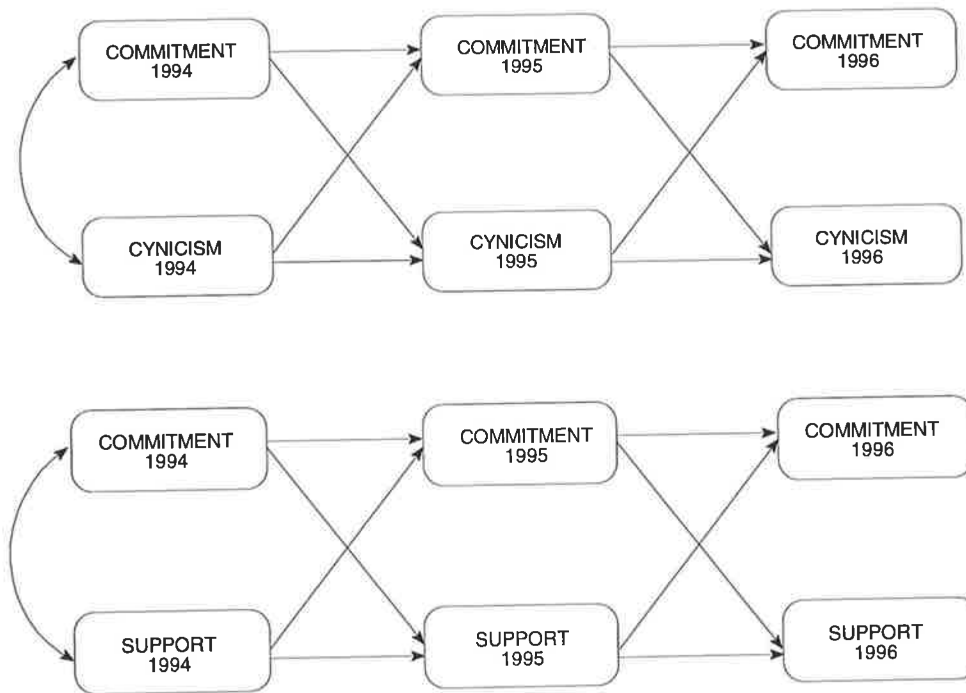


Figure 8.11. Structural-relations models: Cynicism - Commitment and Perceived organisational support - Commitment.

Another longitudinal, nonrecursive model that could be tested using the present data set involved perceived organisational support and organisational commitment. The results of the regressions reported in Chapter 4 indicated that there was a strong, persistent (across time and samples) relationship between perceived organisational support and organisational commitment. This is consistent with Eisenberger et al.'s (1986) contention that a causal relationship existed between perceived organisational support and organisational commitment as a result of the development of a psychological contract between the individual and the organisation. As with cynicism, measures of perceived organisational commitment were collected at each of the three times of measurement. Therefore, a model of the relationships between this factor and commitment was tested (see Figure 8.11).

(iii) Longitudinal Structural-Relations Models

The standardised parameter estimates (structural model only) for the time-lagged models are shown in Figure 8.12. As with the previous models in this study, the fit of the data to the models was poor for both models. For the cynicism - commitment model the $Chi^2 = 4766.36$ (df = 99), GFI = 0.45, AGFI = 0.33, RMSEA = 0.26, and PNFI = 0.15. For

the perceived organisational support-commitment model the $Chi^2 = 505.61$, (df = 6), GFI = 0.81, AGFI = 0.35, RMSEA = 0.34, PNFI = 0.33. Parameters reflecting the stability of the commitment, cynicism and perceived organisational support constructs over time were quite high (between .62 and .83).

However, the patterns of the time-lagged relationships are of more interest. Within the cynicism-commitment model, significant, negative paths were found from cynicism to commitment, but not in the opposite direction. This suggests that cynicism does influence individual levels of commitment over time. However, commitment does not impact on individual levels of cynicism over time. This is not consistent with Niederhoffer's (1967) argument that cynicism and commitment are opposite ends of a single continuum (i.e., that commitment becomes cynicism with increased experience of policing). Had this been the case, the pattern of standardised estimates would have been reversed (i.e., there would have been significant time-lagged paths from commitment to cynicism).

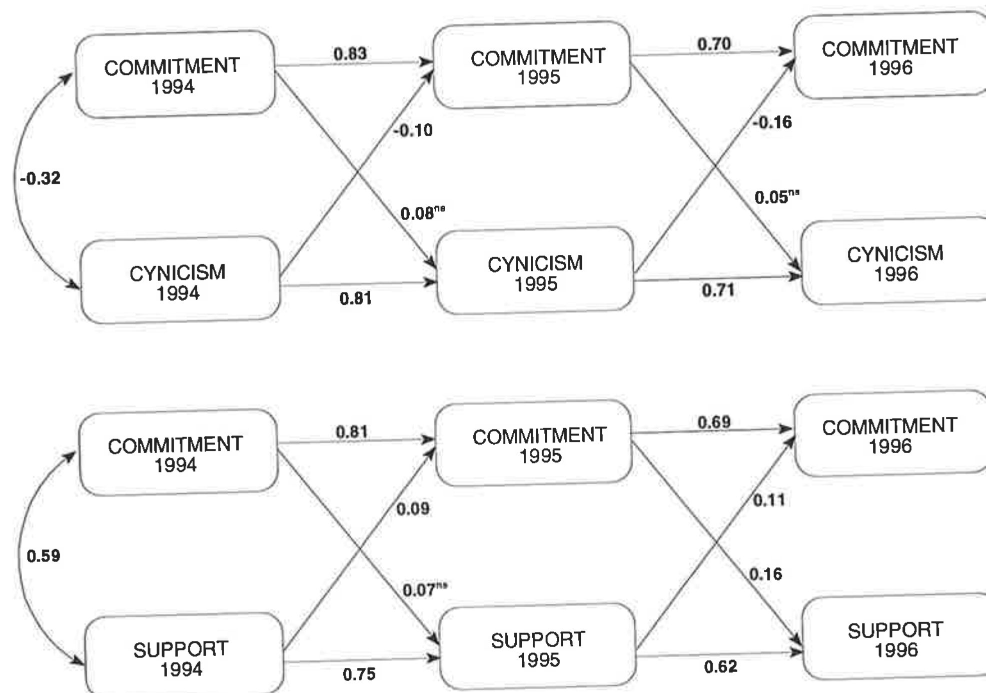


Figure 8.12. Cynicism and Perceived organisational support structural-relations models with standardised parameter estimates.

Note: ns = not significant

On the other hand, there were positive, significant (albeit weak) time-lagged links from commitment to perceived organisational support and from perceived organisational support to commitment. This is consistent with Eisenberger et al.'s (1986) contention that the link between commitment and perceived support is a reciprocal relationship. In other words, the results of the present analysis provide some support for the theory that commitment develops as part of the development of a psychological contract between the individual employee and the organisation.

5. Conclusion

The aim of this exploratory structural equation analysis was to test further the model of "experience" antecedents on which the previous studies in this thesis were based. These previous studies provide preliminary evidence for the model. However, a series of structural equation modelling analyses was conducted to enhance this evidence. Several issues mitigated against using the structural equation modelling as the primary data analysis technique in this thesis. First, the major aim of the study was to demonstrate a developmental function for affective organisational commitment. The collection of data associated with the antecedents of this developmental trend was exploratory, particularly in view of the different theoretical direction taken for the selection of these factors. Thus, rather than collecting comparable data across the three times of measurement, some factors were included (and excluded) on the basis of preliminary analysis of the 1994 data set. Therefore, a full longitudinal model could not be tested. Furthermore, the scales selected as measures of the different aspects of "experience" (i.e., formal organisation, informal organisation, and role) were chosen on the basis of prior relationships with affective organisational commitment. At no stage was the list of factors considered to be exhaustive, and the measurement model analysis conducted in this chapter has highlighted the fact that the selected measures were not necessarily the best measures of the latent experience factors.

Nonetheless, the measurement models incorporating the latent factors were better

fitted by the data than models excluding the latent factors. This argues that, to some degree at least, the measures did gauge underlying experience constructs. Future research, examining the measurement of "experience", should be conducted to identify measures that discriminate between the formal, informal and role experience factors. The need for better measurement lies in the results of the structural-relations models, analysis of which provided additional (albeit weak) evidence that each of the "experience" factors were linked to individual levels of affective organisational commitment. If the latent factors had been better measured, it is highly likely that the structural-relations models would have, in turn, shown more of a relationship between the experience factors and affective organisational commitment.

Two analyses that showed interesting patterns of results were the structural-relations analyses of the commitment-cynicism model (i.e., Niederhoffer, 1967) and the commitment-organisational support model (i.e., Eisenberger et al., 1986). The results indicated that there were reciprocal relationships between commitment and perceived organisational support, whereas cynicism was only an antecedent of commitment. On one hand, this suggests that individuals who have positive experiences of organisational support react by becoming committed to the organisation and, subsequently, viewing the organisation in a more positive light. On the other hand, a cynical attitude resulted in lower levels of organisational commitment over time, but lower levels of commitment did not cause the individual to have a more cynical outlook. This is consistent with Eisenberger et al.'s (1986) contention that a psychological contract develops between the individual employee and the employing organisation. Other results within the present thesis, namely those of the qualitative data analysis reported in chapter 5, combined with these empirical results, provide substantial support for the psychological contract view of the development of organisational commitment, and highlight the importance of positive experiences of all aspects of the organisation to this development.

Chapter 9

Conclusion. The Development of Affective Organisational Commitment: The Nature of the Developmental Function and its Relationship to Personal and Organisational Factors

1. Summary of Results

The studies described in the previous chapters of this thesis have illustrated a trend in the development of affective organisational commitment in police officers whereby the commitment of newcomers begins very high, but decreases rapidly in response to exposure to the "real world" of policing. This decrease continues, but at a much slower rate, with increasing tenure. The trend was found to be the same for police officers in two countries, as well as for a second occupational group of police employees. Furthermore, these studies have demonstrated that the decrease in commitment is linked to various experiences of the organisation. For newcomers, experience of academy training serves to maintain high levels of organisational commitment, whereas factors associated with the initial period of field work cause dramatic decreases in organisational commitment. For more experienced police employees, the factors responsible for individual differences in absolute levels of organisational commitment include the perception that the individual is valued and supported by the organisation, the belief that expectations have not been confirmed by actual experiences with the organisation (particularly in relation to career development), and the degree to which the individual feels that they have made nontransferable investments in the organisation. These relationships were found to hold for three different occupational groups within the police organisation, and for police officers from two countries. However, some other factors were also linked to organisational commitment, and these were different for different occupational groupings of the police employees.

Survey 1 provided cross-sectional evidence for the developmental trend in police organisations in New South Wales and in New Zealand. Importantly, factor and reliability analyses of the data indicated that the OCQ was, within limits, a reasonable

measure of global, unidimensional affective organisational commitment. Furthermore, a range of other analyses indicated that commitment levels did not lead to a response bias that would confound the developmental trend. Finally, the results of partial correlations between organisational commitment and age and tenure indicated that the relationship between organisational commitment and age was a result of the high intercorrelation between age and tenure. In other words, in an organisation where age and tenure are strongly correlated, tenure, rather than age, is the important maturation factor underlying the developmental trend. In regard to the developmental trend, the cross-sectional data for the Australian sample indicated that levels of commitment are relatively high (approximately 5.0 on a 7-point scale) across the first three years of tenure. However, these levels of commitment decrease with increasing tenure, to levels of approximately 4.0 at 17 years of experience. A similar trend was found for the New Zealand sample, but at higher overall levels (i.e., the initial levels were approximately 5.5, decreasing to approximately 4.5).

Survey 1 also provided the data necessary to conduct a preliminary examination of the factors related to individual levels of organisational commitment. The results indicated that commitment was linked to a number of different experiences of the organisation. These were the same in the samples from both Australia and New Zealand, and included experience of the degree to which the organisation values and supports the individual, the degree to which experiences (particularly in relation to career development) are consistent with expectations, and the degree to which the individual felt that they had made nontransferable investments in the organisation. Lower absolute levels of commitment in Australia compared with New Zealand may be explained partially by differences in the organisational culture found in the two countries. Specifically, there are higher levels of individualism (as opposed to collectivism) and greater power distances (i.e., distances between workers and managers with regard to decision making procedures and communication) in Australian organisations, factors that have been linked to lower levels of commitment (Randall, 1993). Overall, the cross-

sectional study provided preliminary evidence for a developmental trend in affective organisational commitment, but this result required validation through a cross-sequential data collection and analysis.

Surveys 2 and 3 provided the cross-sequential data necessary to differentiate tenure (developmental) changes from the influence of cohort and environmental (time of measurement) changes in commitment levels for the Australian sample. The results from series of 2 (Cohort) by 2 (Tenure) analyses of variance verified the existence of a developmental trend, and indicated that the developmental differences were not an artifact of cohort differences arising out of differences in life-histories. The result was somewhat confounded by the presence of a time of measurement effect, which may be explained partially by the effects of the implementation of the Royal Commission into the New South Wales Police Service.

These surveys also provided additional evidence for the experiences that were linked to individual differences in levels of organisational commitment. Although the evidence suggested that the factors were stable (i.e., the same as those in the preliminary analysis), the degree to which individuals reported experiencing role ambiguity was another factor identified in the cross-sequential data. Furthermore, an examination of the influence of promotion on changes in individual levels of organisational commitment suggested that the actual experience of promotion was less important than the perception of equity with regard to promotional systems. These results were validated through content analysis of a series of open-ended questions asking about ways in which the police organisation could improve organisational commitment, support and investments. Within this analysis, the senior officers (i.e., those with greater than 15 years of service) tended to have a broader view of the organisation. Specifically, these officers were more likely than their junior counterparts to identify organisational issues that impacted on police officers' levels of organisational commitment. This seemed to be a function of their experience within the organisation, adding strength to the contention of this thesis that experiences are critical to the development of commitment.

In the longitudinal study of pre-entry and early organisational factors, the developmental function was extended. The results suggested that police recruits entered the police organisation with extremely high levels of commitment (approximately 6.0 on a scale with a maximum score of 7.0). These levels did not change as a result of the collective, cohesive and organisationally-sanctioned training experienced during time at the academy. However, a significant decrease (to approximately 5.0) occurred across a nine week period of field training, during which the recruits were exposed to "real" police work and culture. This period could be described as individualised socialisation, characterised by random experiences of police work and the police culture, often not organisationally-sanctioned, but resulting from exposure to different experienced police officers. Although most of the actual experiences that comprised field training were not recorded in the data set, the decrease in commitment was linked to un-met expectations about, and experience of, the significance of the job in the broader context of the community and the performance feedback inherent in the work itself. Furthermore, recruits who spent a greater proportion of the field training period in country settings reported smaller decreases in commitment than those assigned to metropolitan stations for a greater proportion of the training period.

A cross-sectional comparison between police officers, qualified nonsworn police employees and unqualified nonsworn police employees was conducted to assess the influence of occupational group on the development of organisational commitment. Within the constraints of cross-sectional data, there was evidence that occupational group influenced the developmental trend. Specifically, the unqualified nonsworn employees reported a trend similar to that of the police officers, albeit at a higher absolute level (cf. the New Zealand police officers). On the other hand, the developmental trend of the qualified nonsworn employees tended to increase with increasing tenure, but was comparable in terms of absolute levels to the police sample. Overall, the major factors linked to individual levels of commitment were the same across the three groups (i.e., perceived organisational support, confirmed expectations, and role ambiguity)

although minor differences that might be responsible for the differences in the trends were highlighted. Specifically, unlike the police and the unqualified nonsworn results, nontransferable investments were not, but the value and quality of the communication systems were, linked to individual differences in commitment for the qualified sample.

An exploratory LISREL analysis of the longitudinal data from Surveys 1, 2 and 3 was conducted to assess the validity of a model of the antecedents. This model was essentially a framework that utilised the concept that tenure is an index of experiences of the organisation (i.e., life-span developmental theory) to arrange the myriad of hypothetical antecedents examined previously in the literature. Affective organisational commitment was hypothesised to result from positive experiences of formal and informal organisational characteristics and of the work itself, as well as from a range of personal characteristics. The results of the analyses were inconclusive, with the data collected not fitting well the hypothetical model. This highlights a major problem with the use of structural equation modelling with complex psychological concepts. Specifically, in order to specify an acceptable model, the researcher must identify as many of the factors that impact on the construct under examination (i.e., to reduce the problem of interference from unmeasured variables). However, as the number of measured variables increases, the fit of the model generally decreases. Furthermore, the results of structural equation modelling are influenced significantly by improperly measured factors. Despite this problem with the present model analysis, the results of the analysis provided preliminary evidence that the framework of theoretical antecedents, based on the concept of experience, may be a useful way in which to structure future examinations of the antecedents.

In sum, the results of the studies reported in this thesis have provided evidence on three basic issues: the nature of the developmental function which relates affective organisational commitment to tenure; the relationship between the development of affective organisational commitment and various experiences of the organisation; and the influence of occupational grouping on the development of affective organisational

commitment.

2. The Developmental Trend in Organisational Commitment

Based on life-span developmental theory and methodology, the studies in this thesis were able to distinguish between the influences of tenure (development), cohort and time of measurement. The major finding of this thesis was a robust developmental trend in the affective organisational commitment of police officers. This result was obtained despite some confounding by the influence of an unmeasured variable, hypothesised to be the introduction of a Royal Commission examining corruption in the NSW Police Service.

It could be argued that the developmental trend is unique to officers of the New South Wales Police Service. However, the absolute levels of commitment reported by the experienced officers in the New South Wales sample were comparable with the results obtained by researchers measuring organisational commitment (using the OCQ) in other police departments in Australia (e.g., Victoria, James & Hendry, 1991; Western Australia, Savery et al., 1991; and South Australia, Wilson, 1991). Consequently, it could be argued that the developmental trend is unique to police officers in Australia. In view of this, it is interesting to note that a similar, albeit cross-sectional, result was obtained for police officers employed by the New Zealand police department. This suggests that the trend can be generalised to police officers in other countries. Furthermore, a similar trend was found for a group of nonsworn employees (i.e., individuals who were not police officers, but were employed by the police organisation). On the basis of these results, the trend would appear to be relatively robust. However, the trend is not consistent with the expectations in the literature.

Specifically, the theory suggests that affective commitment should increase with tenure, either because the employee has decided that they like the organisation and want to stay or because the employee recognises that the costs of leaving the organisation would outweigh the benefits. However, recent studies have argued that these responses are actually linked to different forms of organisational commitment (Allen & Meyer,

1990b; Becker, 1992; Dunham et al., 1994; Meyer & Allen, 1991; Popper & Lipshitz, 1992; Wiener, 1982). Allen and Meyer (1990b) theorised that affective commitment develops because people want to stay with the organisation, whereas normative commitment develops because people have been led to believe that the organisation expects their loyalty and continuance commitment develops because people believe that the costs of leaving would be too high. Empirical studies suggest that continuance commitment is a distinct construct, whereas normative commitment is strongly related to affective commitment (e.g., Allen & Meyer, 1990b).

Without preempting the discussion of the factors antecedent to commitment, the finding in the present study may reflect the fact that police officers in Australia and New Zealand do not have the option to change organisations and remain law enforcement officers. The officers may stay in their employing occupation because they enjoy their work (see Wilson, 1991, for evidence of high levels of job satisfaction), despite the fact that they are not committed to the organisational goals. In other words, these officers may have developed high levels of continuance commitment at the same time that they developed low levels of affective commitment.

Alternatively, the cross-sectional evidence suggests that the police role is partially responsible in the developmental trend (i.e., the trend is "police specific"). In other words, the officer may be committed to their work (occupation), but not to their employing organisation. As they are unable to change to another organisation and remain in the occupation, they may report high levels of occupational commitment despite having low levels of commitment to the organisation. Consistent with this distinction, Koslowsky (1990) found that job commitment differed from organisational commitment for operational police officers. She argued that these differed because the goals of the police organisation were not congruent with the goals of operational police work. The discrepancy between the goals of senior police managers and operational police officers has been well documented (e.g., Ruess-Ianni & Ianni, 1983). Although it is important that police officers are committed to their work, it is possible that this commitment may

lead to resistance to organisational changes in the work and work environment and also to the use of unethical methods to achieve the perceived goals of the operational police occupation.

Future work may address these issues, extending the study of the development of commitment to include measures of both continuance and occupational commitment in organisations with higher levels of turnover and with employees who feel that they have a greater number of job alternatives. Furthermore, future work may add to the theoretical literature regarding the development of commitment by establishing whether affective and normative commitment are so reciprocally related that they develop along the same lines.

To conclude, the results of the studies in this thesis provide strong evidence that the developmental function of affective commitment follows a decreasing trend from high levels immediately post-entry to significantly lower levels up to 20 years after entry into the organisation. Furthermore, although the trend in the development of affective organisational commitment appeared to be fairly robust, the absolute levels in commitment differed across the samples. Specifically, the Australian police appeared to have very low levels of commitment when compared with New Zealand police and unqualified nonsworn Australian police employees. The studies reported in this thesis help to identify the factors that may be responsible for these differences. This is the second issue for which this thesis provided evidence: the relationships between individual levels of affective organisational commitment and various experiences of the organisation.

3. Experience and the Development of Organisational Commitment

The existence of a developmental trend for commitment suggests that commitment matures as a result of increasing tenure. Based on life-span theory, it has been argued that something underlying "tenure" is responsible for the highlighted decrease. The results of the studies in this thesis demonstrate that several different factors are linked consistently to individual differences in levels of organisational

commitment, and, therefore, linked theoretically to the developmental trend. These factors include personal characteristics (i.e., investments and a belief in the equity of promotional systems), formal organisational factors (i.e., perceived organisational support), informal organisational factors (i.e., commitment norms), and role characteristics (i.e., role ambiguity). In general, these factors are linked to commitment after the individual has gained some first-hand knowledge of the organisation. However, some factors are also linked to commitment levels immediately on entry to the organisation.

(i) Socialisation: The Influence of Training and Field Experience

The results of the study of police recruits suggest that exposure to the formal, organisationally-sanctioned environment of the police academy does not effect the commitment levels of recruits. On the other hand, during the period of field training there seems to be a very powerful socialisation effect. Van Maanen and Schein (1979) reported that the strength of socialisation lies in the form of the process. Their theory suggests that one of the strongest forms of socialisation occurs when the "newcomer" (to organisation or role) is subjected to collective, formal, defined, serial, divestiture socialisation. Effectively this means that the individual undergoes a period of rigid, formal training in a group of individuals similar to themselves, and within which cohesion is emphasised. The individual is encouraged to think and act to the norm (as set by the group). In the present study, this form of socialisation, which characterises the police academy experience, did not influence the recruits' levels of organisational commitment; other than to maintain the original, high levels.

On the contrary, the form of socialisation that most influenced the recruits' attitudes toward the organisation, and possibly to other aspects of police work, was individual, informal, variable, random, divestitive and disjunctive. In other words, the socialisation tactics used by the field training officers responsible for supervising the recruits, providing experiences that are dictated by each individual supervisor, had a strong, negative influence on the commitment of the recruits. The developmental trend

reported in this thesis shows that experienced police officers in Australia have low levels of commitment. Given that experienced officers often fulfil the role of recruit supervisor, it could be argued that the decrease in the newcomers' attitudes reflects a desire to conform to the perceived norms of the peers and immediate supervisor.

Although this result is consistent with other studies of changes in police recruits' attitudes toward the organisation and the work (Bennett, 1984; Stradling et al., 1993), there has not yet been a study designed to described exactly the socialisation tactics experienced by police recruits. In other words, in all discussions of police socialisation to date, the nature of the socialisation experiences are based on conjecture and anecdotal evidence (see Van Maanen, 1975, for a practical example). An empirical study of the socialisation tactics of the police organisation, from the recruits' point of view, would provide a more solid foundation for the findings of all of these studies. Furthermore, it would be interesting to test the manner in which newcomers' attitudes change in response to exposure to experienced organisational members, and test whether the newcomers' attitudes become more like the attitudes of their immediate peer group. To extend this study, it would be interesting to test the degree to which, and the manner in which, experienced organisational members consciously, or unconsciously, manipulate the experiences and attitudes of newcomers (cf. Treadwell & Harrison, 1994).

This manipulation of experiences is important in the manner in which it impacts on the relationship between expectations and experiences (i.e., reality shock). Although support for the notion that experiences are more important than expectations or the discrepancy between the two is strengthening (e.g., Irving & Meyer, 1994), there is still substantial empirical evidence that met-expectations (reality shock) are critical in the development of work-related attitudes (Dean et al., 1988; Farkas & Tetrick, 1989; Lee, 1988; Meyer et al., 1991; Porter & Steers, 1973; Rosin & Korabik, 1991; Wanous et al., 1992). The results of the present thesis indicate that the way in which the police recruits' organisational commitment developed was influenced by unmet-expectations relating to task significance (i.e., the degree to which the work is important in the broader

community). To some extent, this may have been related to the socialisation experiences, because the recruits who spent a greater proportion of field training time in rural situations felt that their expectations for task significance had been fulfilled. Once again, this argues that a more extensive study of the nature of socialisation experiences should be conducted.

However, the process of gaining knowledge of the organisation, the work and the culture is not restricted to newcomers. Experience of different aspects of the organisation has been shown in the studies of this thesis to be critical to the development of affective organisational commitment throughout a police officer's career.

(ii) Tenure: The Influence of Continuing Experience of the Organisation

Apart from the existence of a developmental function, an important finding of this thesis is that experience of different facets of the organisation influence this development. In other words, experiences gained as a result of increasing tenure cause changes in the way in which employees view the organisation. The strongest relationships were for perceived organisational support, confirmed expectations and perceived equity in promotional systems. In addition, the degree to which nontransferable investments had been made by the individual influenced their commitment. These relationships were first demonstrated using existing quantitative measures, and validated using content analysis of responses to open-ended questions.

The finding that perceived organisational support was the factor most strongly linked to commitment is consistent with the understanding that organisational commitment taps a global attitude directed at the organisation. House and Rizzo (1971) found that respondents to measures of organisational concepts referred to top management when asked questions about "the organisation". Other studies have confirmed that members of top management are the reference for measures of organisational commitment (Gregersen, 1993; Reichers, 1986). This suggests that the specific experiences falling under the banner of "organisational support" are the direct result of management policies and procedures.

However, both the perceived organisational support and the confirmed expectations measures were general, and did not establish the exact nature of experiences that the individual felt demonstrated support or the nature of the expectations that needed to be confirmed. Robinson et al. (1994) argued that employees believe that the organisation owes them something in return for loyalty and performance. These obligations include rewards that are both transactional (e.g., opportunities for advancement, high pay and merit pay) and relational (e.g., training, job security and personal development). Other rewards have been the subject of a substantial body of empirical research in the managerial literature. These include participation in decision-making (Dunphy & Stace, 1993; Marcoulides & Heck, 1993; Martelli et al., 1989) and recognition through formal communication systems (Callan, 1993; Mowday et al., 1974). It is interesting to note that many of these factors were highlighted by the police officers when asked to identify ways in which the organisation could improve commitment and demonstrate support for its employees.

To some degree, participation in decision-making and communication may influence the development of commitment by reducing role ambiguity (i.e, lack of guidelines providing information about the outcomes of work behaviours). The results of the major study of this thesis indicated that high levels of ambiguity were related to low levels of commitment, a result that replicated the findings from a number of previous studies (Dubinsky & Mattson, 1979; Glisson & Durick, 1988; Mathieu, 1988). Although these results argue that there is a direct link between commitment and role ambiguity, it could be hypothesised that the provision of guidelines about performance rewards may enhance employees' perceptions of fairness in the provision of recognition.

This experience of fairness or equity in reward systems may be one of the critical issues for the development of organisational commitment. The link between organisational commitment and equity in promotional systems is consistent with previous studies (cf. Furnham & Drakeley, 1993; Marsden et al., 1993; Schwarzwald et al., 1992; Wilson & Spence Laschinger, 1994; Wright, 1990). Although it appears that

promotional systems are important in the police environment (since promotion is one of the few extrinsic rewards available to police officers, and rank is an important status symbol), it may be that the present study tapped only this one aspect. In other words, equity in other organisational procedures and processes may equally be critical to the development of organisational commitment. For example, another aspect that has been considered in previous studies, and found to be linked to the development of organisational commitment, is equity in compensation (i.e., salary and merit-based bonuses, Cohen, 1994; Folger & Konovsky, 1989). However, the qualitative data analyis identified a number of processes and procedures that, while having been examined in regard to the direct relationship between them and commitment, have not been examined within a perceived equity framework. These include participation in decision-making, career development opportunities, formal recognition of performance (e.g., non-monetary rewards such as awards and medals) and informal recognition of performance (e.g., positive feedback from supervisors). It should be noted that the issue of equity may be particularly important to the Australian employees. Australians tend to score at higher levels than people from other countries on the individualism subscale of Hofstede's Value Survey (Hofstede, 1980; 1983), indicating that Australians in general value personal reward and equity more highly. Future studies in other countries may find that equity is not as important to the development of commitment as it has been shown to be in the present study.

One additional aspect of the equity-commitment relationship that requires attention is the moderating effect of peer and supervisor attitudes. Specifically, research has demonstrated that employees' interpretations of organisational features, events and processes are influenced by their interactions with supervisors and peers (Kozlowski & Doherty, 1989). Although this influence is perhaps strongest for newcomers (see previous discussion of socialisation), the influence of supervisor and peers on the development of work attitudes has been well-documented (e.g., Becker & Billings, 1993; Buchanan, 1974; George & Brief, 1992; Leiter & Maslach, 1988; Ostroff & Kozlowski, 1992; Sims &

Szilagyi, 1975). Martocchio (1994) argued that coworkers express attitudes about organisational features, events and processes, providing a context in which group members interpret these aspects of the organisation. It is highly likely that this context will include an equity component. In other words, group members are likely to express opinions that provide cues to other members about the beliefs of the group (i.e., norms) regarding the equity of these features, events and processes.

The studies in this thesis did attempt to assess the influence of perceived norms (of peers, supervisors and senior officers) on the commitment levels of the experienced officers. However, the examination was restricted to single item measures in Survey 3 only. Furthermore, these measures did not enter the regression after the influence of perceived organisational support, confirmed expectations, investments and role ambiguity had been accounted for. However, the previous discussion of communication and participation, as well as the findings in the recruit study, argue that the experience of norms (either overtly or covertly expressed by other people) should impact on organisational commitment. In police organisations, where the norm for commitment is low in experienced officers, the culture seems to ensure that attitudes of low commitment will be maintained. On this basis, it may be important to establish the exact influence of perceived norms, as well as the manner in which these are expressed or communicated through the organisation, on the development of organisational commitment.

In addition to organisational support, confirmation of expectations and equity, the importance of nontransferable investments in the development of organisational commitment has been highlighted in this thesis. Although this thesis has demonstrated that affective organisational commitment was related to perceived investments, others have argued that investments should be more strongly related to continuance commitment (Allen & Meyer, 1990b). The relationship between affective and continuance commitment was discussed in the previous section of this chapter. However, the finding that investments are linked to affective commitment suggests that they should at least be considered in the framework of antecedents. Furthermore, as with perceived

organisational support, attention should be directed toward the nature of the specific investments that each individual feels have been made and are nontransferable.

To summarise, the concept that tenure is a construct of all of the experiences that an individual has within an organisation, and that the experiences (as opposed to tenure, per se) cause changes in affective organisational commitment, may provide a worthwhile framework within which to examine the antecedents of commitment. Further work is needed to determine the exact nature of the experiences that are critical within this framework (particularly those which result in a feeling of perceived organisational support or which confirm important expectations or which result in nontransferable investments), as well as the relationship between equity in these experiences and the development of organisational commitment.

(iii) Psychological contracts and the Development of Organisational Commitment

The results discussed above can be summarised under the concept of psychological contracts (Robinson et al., 1994). An employee who feels that the organisation owes them something for their loyalty will respond with loyalty and commitment. If the organisation fails to deliver (i.e., to provide some form of reward or recognition or positive experience), the contract is violated and the employee reacts affectively. Knoop (1994) reported a positive correlation between personal pride and organisational commitment, suggesting that commitment results when the organisation provides an environment that enhances the individual's feeling of dignity, worth and self respect (cf. Sheridan, 1992). To some degree, this is consistent with the theory of person-organisation fit, which argues that individuals select organisations on the basis that specific organisations provide environments that will fulfil their individual needs (Turban & Keon, 1993), and that adjustment to the work and the organisation results from coherency between personal preferences, beliefs and values and experience of the organisation (O'Reilly, Chatman & Caldwell, 1991; Ostroff, 1993). Furthermore, Zeffane (1994) found that the commitment levels of employees in private organisations was significantly higher than those of

employees in public organisations. He argued that this was consistent with the idea that public sector employees felt that management considered them to be commodities rather than resources. Essentially, these findings suggest that positive experiences provided by the organisation influence the relationship between the organisation and the individual, leading to high levels of commitment.

Consistent with this contention, Williams and Hazer (1986) theorised that commitment is not a social exchange process (i.e., where the individual responds to the experience of rewards or recognition with commitment to the organisation), but a process of evaluation of experiences. Specifically, where the individual evaluates the costs and benefits of belonging to the organisation in terms of whether their experience of the organisation fulfils their needs and desires -- the degree to which they are satisfied -- and, in response to this evaluation, determines the degree of personal attachment to the organisation. Affective attachment results when the individual determines from their experience that the organisation had fulfilled their needs and desires.

Allen and Meyer (1990b) have argued that the strongest evidence for antecedents of affective organisational commitment is for the work experience group of factors, most notably those experiences that fulfil employees' psychological needs to feel comfortable within the organisation and competent in the work role. The present study extends this finding, and argues that experiences must also fulfil the employees' feeling that the organisation values them, is concerned about their well-being and recognises their contribution. Furthermore, the results of the present thesis suggest that the organisation must continue to provide positive experiences to the employee at all stages of tenure, particularly given that longer-serving employees are more likely to identify problems with the organisation and communicate their attitudes to less experienced employees.

4. Occupational Grouping and the Development of Organisational Commitment

The final major issue for which the studies of the present thesis have provided evidence, is the influence of occupational grouping on the developmental function for organisational commitment. Specifically, the major developmental trend reported by the

police officers was consistent across country and for one group of nonsworn police employees (i.e., the unqualified group). This suggests that the developmental trend, despite being contrary to the expectations of the literature, was extremely stable. Furthermore, it suggested that experience of the police organisation, independent of actual role or occupation of the individual, was responsible for the developmental trend.

On the other hand, the trend reported by a third group of police employees (i.e., those who hold tertiary qualifications at or above the level of Bachelor's degree) was consistent with the theory (e.g., Mowday et al., 1982) and with the findings of other studies (e.g., Allen & Meyer, 1993; Bateman & Strasser, 1984; Curry et al., 1986; Gregersen, 1993). Specifically, the cross-sectional data provided preliminary evidence of a moderate increase in commitment with increasing tenure. It is interesting to note that the studies cited (i.e., those that reported positive relationships between organisational commitment and tenure) all utilised samples of hospital employees, primarily professionals and generally with degree qualifications. For example, Gregersen (1993) reported that 64% of his sample held university degrees. Therefore, it is possible that the difference in the trend reported by the police officers (and unqualified nonsworn employees) and the qualified nonsworn employees (both in the present study and in previously reported studies) may be a result of the educational level of the respondents.

Alternatively, it is possible that the difference is a reflection of the manner in which occupation influences the developmental function. As discussed in the introduction to Chapter 7, the dual labor market theory suggests that the development of commitment may be different for different occupations (Thompson & Terpening, 1983). Specifically, commitment should increase with tenure for employees in primary occupations (i.e., those characterised by high individual growth and advancement potential, good salary levels and greater expectations for autonomy and responsibility). Given that the samples used in the empirical studies have generally been employed in professions that may be considered primary occupations, it would appear that there is preliminary evidence for the theory. However, to test the theory adequately, further studies designed specifically

* It should be noted that any difference in the developmental trends of organisational and occupational commitment may be stronger in a police organisation than in other organisations due to a lack of salient job alternatives or inter-organisational mobility for police officers. Replication of this study, including the measurement of occupational commitment, in other police organisations and in non-police organisations may provide some useful insights into the confounding of organisational and occupational commitment.

to examine the development of affective organisational commitment in a range of occupations would be required. These studies should be conducted with different occupational groups within an organisation, to reduce the confounding influence of different organisational experiences.

Some authors have suggested that commitment to the individual's "profession" or "career" (Carson & Bedeian, 1994; Morrow & Goetz, 1988; Sheldon, 1971; Shore et al., 1990; Wallace, 1995) or occupation (Vandenberg & Scarpello, 1994) may interfere with commitment to the organisation (Marsden et al., 1993; Reichers, 1985). If this is the case, it could be argued that commitment of the qualified nonsworn employees in the present study was to their occupations rather than to their organisation. Although this study does not provide empirical evidence for or against this contention, two things mitigate against the conclusion. First, empirical studies have shown that occupational and organisational commitment can coexist and are not inter-dependent (Meyer et al., 1993; Witt, 1993). Second, as discussed previously, the police officers in Australia and New Zealand who report low levels of organisational commitment tend to be very committed to their work (i.e., to their occupation). This suggests, albeit without empirical evidence, that low levels of organisational commitment and high levels of occupational commitment coexist in the present sample. In view of this, it could be argued that the development of affective organisational commitment follows a developmental function that is different from the developmental function of other forms of commitment (e.g., occupational commitment). Future research examining the developmental trends of a range of commitments (e.g., organisational versus occupational, or affective versus continuance), may provide some valuable insight into the nature of the development of organisational commitment.*

5. Conclusion

The studies reported in this thesis provide solid evidence that a developmental function exists for affective organisational commitment. Developmental maturation in this form of commitment occurs with increasing tenure, where tenure can be conceived as

an index of experiences of all aspects of the organisation. Perhaps the most critical experiences with regard to the development of high levels of organisational commitment are those that provide the employee with a personal demonstration that the organisation supports and values them as an individual. The form that these incidents will take will be dependent on individual differences in personal characteristics and needs. Furthermore, the experiences influence in different ways the development of affective commitment of individuals within different occupational groups, within and between organisations. Managers of organisations, as well as researchers examining the nomological network of factors surrounding organisational commitment, must be aware of the potential confounding of these issues.

Perhaps the most pivotal period of an individual's career with respect to the development of affective organisational commitment, is immediately after entry into the "real" world of the organisation. In the present study, this was the period during which the recruits were first exposed to the police culture and police work. The nature of informal socialisation and the norms of peers and supervisors should be further examined to highlight the exact nature of the relationship between these aspects of the informal organisational culture and the early development of organisational commitment.

To conclude, this study has provided justification for the results of previous empirical studies that have been based on the assumption that affective organisational commitment develops in a predictable manner, by providing evidence of a developmental function, independent of cohort and environmental effects. However, this study should be replicated in other organisations and with a wider range of occupational groups to determine the extent to which the developmental function described for police officers in Australia can be generalised to other samples of employees.

List of Appendices

		Page
Appendix 4.1.	Ethics form and scales used in this study (items and response formats).	231
Appendix 4.2.	Reworked Commitment Propensity scale.	237
Appendix 4.3.	Factor scores for measures with more than two items using the full data set (samples 1 and 2) from Survey 1 (n = 1038).	238
Appendix 4.4.	Comparison of rank between respondents and nonrespondents within cohorts (i.e., looking for bias).	242
Appendix 4.5.	Calculation of nonrespondents' average response required to change the respondents' average response.	242
Appendix 4.6.	Summary of analysis of variance: Country (2) by Cohort (10).	243
Appendix 4.7.	Gender differences in organisational commitment.	243
Appendix 4.8.	Rank and posting (duties) frequencies.	244
Appendix 4.9.	Factor scores for measures with more than two items from Surveys 2 (n = 558) and 3 (n = 539).	245
Appendix 4.10.	Summary of analyses of variance comparing respondents to one, two and three surveys.	249
Appendix 4.11.	Summary of one-way analysis of variance (Cohort) for organisational commitment in 1995.	249
Appendix 4.12.	Summary of one-way analysis of variance (Cohort) for organisational commitment in 1996.	250
Appendix 4.13.	Summary of repeated measures analyses of variance of organisational commitment in groups varying by tenure and cohort (i.e., testing the matrices of the developmental model).	251
Appendix 4.14.	Summary of a repeated measures analysis of variance comparing commitment levels of four promotional groups.	253
Appendix 6.1.	Summary of a repeated measures analysis of variance comparing commitment levels of recruits across time.	253

List of Appendices. continued

		Page
Appendix 6.2.	Scattergrams showing the relationships between change in organisational commitment (T3 to T4) and (un)met-expectations.	254
Appendix 6.3.	Correlations between organisational commitment and the subscales of commitment propensity.	256
Appendix 6.4.	Summary of a repeated measures analysis of variance assessing changes in recruits' levels of task significance.	256
Appendix 6.5.	Summary of t-tests comparing South Australian and New South Wales probationary officers on all comparable measures.	257
Appendix 7.1.	Factor scores for measures with more than two items from the Nonsworn Survey (n = 855).	258
Appendix 7.2.	Summary of an analysis of variance comparing commitment levels of different nonsworn employee groups.	260
Appendix 7.3.	Summary of an analysis of variance comparing commitment levels of police employee groups across tenure.	260
Appendix 7.4.	Summary of an analysis of variance comparing commitment levels of police employee groups across tenure.	261

Appendix 4.1.
Ethics form and scales used in this study (items and response formats).

CONSENT FORM

(To be used to obtain informed consent of persons participating in research projects)

Participant's name: ....
Assigned Code Number: ....
Project: *The Development of Organisational Commitment*
Name of responsible investigator: *Ms Karen Beck*
Name of project supervisor: *Dr Carlene Wilson*

Please read and sign this declaration.

1. I consent to participate in the above project. details of the project, including tests or procedures have been explained to me.

2. I authorise the investigator to use with me these tests or procedures.

3. I acknowledge that:
   a) I have been informed that I am free to withdraw from the project at any time.
   b) The project is for the purpose of research and / or teaching and not for treatment.
   c) I have been informed that the confidentiality of the information I provide will be safeguarded.
   d) I have been told that there are no known adverse effects of the tests or procedures.

Signed: .... Date: ....
(Participant)

Note. This consent form was printed on National Police Research Unit letterhead.

Measures included in the survey showing response scales.

OCQ

1	2	3	4	5	6	7
Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.
2. I talk up this organisation to my friends a as a great organisation to work for.
3. I feel very little loyalty to the this organisation.
4. I would accept almost any type of job assignment in order to keep working for this organisation.
5. I find that my values and the organisation's values are very similar.
6. I am proud to tell others that I am part of this organisation.
7. I could just as well be working for a different organisation as long as the type of work was similar.
8. This organisational really inspires the very best in me in the way of job performance.
9. It would take very little change in my present circumstances to cause me to leave this organisation.
10. I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.
11. There's not too much to be gained by sticking with this organisation indefinitely.
12. Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees.
13. I really care about the fate of this organisation.
14. For me this is the best of all possible organisations for which to work.
15. Deciding to work for this organisation was a definite mistake on my part.

Communication: Quality

1	2	3	4	5
Strongly disagree	Mildly disagree	Neither agree nor	Mildly agree	Strongly agree

"Overall, formal communication in the service ..."

1. Provides adequate information about what I should do in particular situations (that is, policy).
2. Provides adequate information about how I should do things (that is, procedure).
3. Provides adequate information about legislative changes affecting police.
4. Provides sufficient explanation as to why changes have occurred.
5. Consists of too many publications.
6. Is timely - the information is delivered when it is needed.
7. Is generally relevant to me.
8. Is not repetitive - items are not repeated in different communication sources.
9. Is satisfactory.

Communication: Information exchange.

1	2	3	4	5
Strongly disagree	Mildly disagree	Neither agree nor	Mildly agree	Strongly agree

1. I am able to communicate suggestions for change to my immediate supervisor.
2. Having to communicate through "normal channels" restricts my ability to communicate suggestions for changes.
3. Communication ideas would be improved if I was able to access ranks higher than my immediate supervisor.
4. Formal meetings at my level are held on a regular basis.
5. I generally attend formal meetings at my level.
6. Formal meetings at my level generally provide me with a good deal of useful information.

Protestant Work ethic

1	2	3	4	5	6	7
Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree

1. Most people spend too much time in unprofitable amusements.
2. Our society would have fewer problems if people had less leisure time.
3. Money acquired easily (e.g., through gambling or speculation) is usually unwisely spent.
4. There are few satisfactions equal to the realisation that one has done the best at a job.
5. The most difficult things at work usually turn out to be the most rewarding.
6. Most people who don't succeed in life are just plain lazy.
7. The self-made person is more likely to be ethical than the person born to wealth.
8. I often feel I would be more successful if I sacrificed certain pleasures.
9. People should have more leisure time to spend in relaxation.
10. Any person who is able and willing to work hard has a good chance of succeeding.
11. People who fail at a job have usually not tried hard enough.
12. Life would have very little meaning if we never had to suffer.
13. Hard work offers little guarantee of success.
14. The credit card is a ticket to careless spending.
15. Life would be more meaningful if we had more leisure time.
16. The person who can approach an unpleasant task with enthusiasm is the person who gets ahead.
17. If one works hard enough one is likely to make good life for oneself.
18. I feel uneasy when there is little work for me to do.
19. A distaste for hard work usually reflects a weakness of character.

Perceived organisational support.

1	2	3	4	5	6	7
Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree

1. The organisation values my contribution to its well-being.
2. If the organisation could hire someone to replace me at a lower salary it would do so.
3. The organisation fails to appreciate any extra effort from me.
4. The organisation strongly considers my goals and values.
5. The organisation would ignore any complaint from me.
6. The organisation disregards my best interests when it makes decisions which affect me.
7. Help is available from the organisation when I have a problem.
8. The organisation really cares about my well-being.
9. Even is I did the best job possible, the organisation would fail to notice.
10. The organisation is willing to help me when I need a special favour.
11. The organisation cares about my general satisfaction at work.
12. If given the opportunity, the organisation would take advantage of me.
13. The organisation shows very little concern for me.
14. The organisation cares about my opinions.
15. The organisation takes pride in my accomplishments at work.
16. The organisation tries to make my job as interesting as possible.

Cynicism

1. The rules that we're supposed to follow here never seem very clear.
2. The rules and regulations are not clear enough that I know what I can and cannot do on my job.
3. Many of the laws that we are supposed to enforce don't seem to make much sense.
4. The instructions I'm given on how to do my work are often vague and contradictory.
5. The major problem here is that the officials who are in charge don't really understand what the average officer has to face each day.
6. The people in charge here are mostly looking out for themselves and don't really care about what happens to the rest of us.
7. Promotions here are based on whom you know rather than on what you know.
8. The people in charge here never seem to respect the officers who do the real work.
9. New changes and reforms are weakening the traditional authority of the police officer.
10. The courts have given offenders so may rights that it is practically impossible to maintain law and order.
11. The police should have the right to listen to and record telephone conversations is they believe that they need to do so.
12. When a person is arrested, he should be held in jail until his case come to trial if the police and the prosecutor believe this is necessary.
13. Many citizens have a bad attitude toward police officers.
14. When testifying in court, the police officer is often treated as criminal when asked to take the witness stand.
15. Citizens in recent years seem to have a more defiant attitudes than ever before.
16. In the past few years, the respect shown to officers by citizens has decreased.

Met-expectations.

Looking back over your career so far, indicate the extent to which your expectations in the areas listed have been met by placing the appropriate number from 1 to 3 in the blank next to each item.

1 = has not met my expectations,
2 = has met my expectation,
3 = has exceeded my expectations.

1. Salary.
2. Career advancement.
3. Opportunities to develop new skills.
4. Status / prestige.
5. Influence in the organisation.
6. Stress.
7. Hours required.
8. Quality of supervision.
9. Compatibility of colleagues.
10. Type of work expected of me.
11. Physical conditions.
12. Benefits and perks.

Self Esteem

Please circle the response which best applies to you.

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

1. On the whole, I think I am satisfied with myself.
2. At times I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people
5. I feel that I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at east on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

Role Ambiguity

Below are a series of statements about operational aspects of jobs. Please indicate, by writing the appropriate number from the following scale in the blank next to the statement, whether you think they are true or false of your own job.

1	2	3	4	5	6	7
Very False	Mostly False	Somewhat False	Neither True nor False	Somewhat True	Mostly True	Very True

1. I feel certain about how much authority I have.
2. Clear, planned goals and objectives exist for my job.
3. I know that I have divided my time properly.
4. I know what my responsibilities are.
5. I know exactly what is expected of me.
6. Things that have to be done are clearly explained.

Role Conflict

1. I have to do things that should be done differently.
2. I received assignments without the the staffing support to complete them.
3. I seem to have to buck a rule or policy in order to carry out an assignment.
4. I work with two or more groups who operate quite differently.
5. I receive incompatible requests from two or more people.
6. I do things that are apt to be accepted by one persona nd not accepted by others.
7. I receive assignments without adequate resources and materials to execute them.
8. I work on unnecessary things.

Investment

The next questions relate to the things which you feel you have invested during the time you have been employed. Investments may include such things as retirement/pension programmes, specific or non-portable training, friendships, spousal employment, community ties, and home ownership. Please indicate your response to each question by circling the appropriate number on the associated scale.

1. In general, how much have you invested in this job?

1	2	3	4	5	6	7	8	9
Nothing				*A little*				*A great deal*

2. All things considered, to what extent are there activities/events/persons/objects associated with your job that you would lose if you were to leave?

1	2	3	4	5	6	7	8	9
None				*A few*				*A great many*

3. How do you think that your investment in your job compares with what most people have invested in their jobs?

1	2	3	4	5	6	7	8	9
I've invested less than most people				*About the same as most people*				*I've invested more than most people*

Appendix 4.2.
Reworked Commitment Propensity scale.

Measures	Item
Commitment Propensity.	
1.	I always carefully weigh costs and benefits when making decisions which affect my life.
2.	I often make quick decisions which have a lot of implications for my life.
3.	I am a somewhat impulsive person.
4.	I am comfortable making major decisions according to 'gut' feel.
5.	A never make major decisions quickly.
6.	How much time did you spend around police officers while you were growing up?
7.	Do you have a family member who is / was in the police service.
8.	I had a strong desire to be a police officer.
9.	I thought I would enjoy participating in police ceremonies (such as marching and parades).
10.	I regretted my decision to go to the police academy.
11.	I felt very committed to a police career.
12.	I was interested in a police career but, if it didn't work out, I would probably have been just as happy doing something else.
13.	A police career was really the only career I could imagine for myself.
14.	I couldn't imagine staying with the police service until retirement.
15.	I saw the police service as my life's work.
16.	Based on my ability and the amount of work I do, I thought I would get high grades.
17.	I expected to do well at the Academy.
18.	I really had not failed at too many things I had tried to do.
19.	I was never really sure I could do something I had never tried to do.
20.	I had always been able to do well in anything I had tried.
21.	I expected to accomplish whatever I set out to do.
22.	Anything I tried I could usually do.
23.	I had a good idea about what the academy would be like.
24.	I thought I had a pretty good idea about what the police service would be like.
25.	I turned down other job offers or a place in tertiary education to join the police service.
26.	I did nor pursue alternative opportunities outside of the police service.
27.	The police service was really the only organisation that accepted me.
28.	The police service was only one alternative form among many opportunities.
29.	The police service was my only choice of occupation.
30.	When I chose the police service, I had many other opportunities.
31.	How much would you say you knew about what it meant to be a police recruit?
32.	How confident did you feel that someday the people you knew would look up to you?
33.	How confident were you that your success in the future job or career was assured?
34.	In general, how confident did you feel about your abilities?

Appendix 4.3.

Factor scores for measures with more than two items using the full data set (samples 1 and 2) from Survey 1 (n = 1038).

Measures[a] Item	Factor loadings		
OCQ			
1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.	.55	.21	-.00
2. I talk up this organisation to my friends a as a great organisation to work for.	.67	.28	.17
3. I feel very little loyalty to the this organisation.	.42	-.18	.51
4. I would accept almost any type of job assignment in order to keep working for this organisation.	.25	.64	-.14
5. I find that my values and the organisation's values are very similar.	.43	.52	-.08
6. I am proud to tell others that I am part of this organisation.	.70	.25	.15
7. I could just as well be working for a different organisation as long as the type of work was similar.	-.03	.02	.74
8. This organisational really inspires the very best in me in the way of job performance.	.57	.44	.05
9. It would take very little change in my present circumstances to cause me to leave this organisation.	.37	.35	.51
10. I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.	.64	.23	.23
11. There's not too much to be gained by sticking with this organisation indefinitely.	.30	.47	.46
12. Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees.	-.01	.69	.32
13. I really care about the fate of this organisation.	.71	-.04	.02
14. For me this is the best of all possible organisations for which to work.	.62	.40	.24
15. Deciding to work for this organisation was a definite mistake on my part.	.61	.13	.37
Communication: Quality ("Overall, formal communication in the service ...")			
1. Provides adequate information about what I should do in particular situations (that is, policy).	.84	-.03	
2. Provides adequate information about how I should do things (that is, procedure).	.85	-.08	
3. Provides adequate information about legislative changes affecting police.	.71	.28	
4. Provides sufficient explanation as to why changes have occurred.	.55	.42	
5. Consists of too many publications.	-.10	.58	
6. Is timely - the information is delivered when it is needed.	.39	.55	
7. Is generally relevant to me.	.31	.54	
8. Is not repetitive - items are not repeated in different communication sources.	.04	.71	
9. Is satisfactory.	.62	.48	
Communication: Information exchange.			
1. I am able to communicate suggestions for change to my immediate supervisor.	.20	.54	
2. Having to communicate through "normal channels" restricts my ability to communicate suggestions for changes.	.01	.83	
3. Communication ideas would be improved if I was able to access ranks higher than my immediate supervisor.	-.01	.80	
4. Formal meetings at my level are held on a regular basis.	.67	.15	
5. I generally attend formal meetings at my level.	.81	-.08	
6. Formal meetings at my level generally provide me with a good deal of useful information.	.79	.14	

[a] Social involvement and investment scales provided single factor results, thus rotated solution are not available.

Measures	Item	Factor Loadings				
Protestant Work ethic						
1.	Most people spend too much time in unprofitable amusements.	.47	-.10	.06	.23	.17
2.	Our society would have fewer problems if people had less leisure time.	.47	-.18	-.07	.14	.47
3.	Money acquired easily (e.g., through gambling or speculation) is usually unwisely spent.	.63	.01	.24	-.26	.08
4.	There are few satisfactions equal to the realisation that one has done the best at a job.	.13	.06	.76	-.03	.06
5.	The most difficult things at work usually turn out to be the most rewarding.	.11	.13	.69	.11	-.04
6.	Most people who don't succeed in life are just plain lazy.	.48	.22	-.10	.46	-.09
7.	The self-made person is more likely to be ethical than the person born to wealth.	.56	.11	.00	.13	-.30
8.	I often feel I would be more successful if I sacrificed certain pleasures.	.51	.21	-.06	.07	-.02
9.	People should have more leisure time to spend in relaxation.	-.06	-.04	.02	.12	.77
10.	Any person who is able and willing to work hard has a good chance of succeeding.	.15	.70	.05	.05	-.01
11.	People who fail at a job have usually not tried hard enough.	.37	.30	-.13	.50	-.05
12.	Life would have very little meaning if we never had to suffer.	.44	.25	.23	.05	.06
13.	Hard work offers little guarantee of success.	-.07	.67	-.05	-.03	.13
14.	The credit card is a ticket to careless spending.	.49	-.06	.18	.10	-.16
15.	Life would be more meaningful if we had more leisure time.	.06	-.13	-.06	.11	-.68
16.	The person who can approach an unpleasant task with enthusiasm is the person who gets ahead.	.13	.52	.34	.20	-.16
17.	If one works hard enough one is likely to make good life for oneself.	.10	.65	.26	.27	-.06
18.	I feel uneasy when there is little work for me to do.	-.08	.04	.50	.47	.11
19.	A distaste for hard work usually reflects a weakness of character.	.10	.09	.23	.72	.05
Perceived organisational support.						
1.	The organisation values my contribution to its well-being.	.61	.35			
2.	If the organisation could hire someone to replace me at a lower salary it would do so.	.06	.72			
3.	The organisation fails to appreciate any extra effort from me.	.22	.75			
4.	The organisation strongly considers my goals and values.	.48	.51			
5.	The organisation would ignore any complaint from me.	.31	.55			
6.	The organisation disregards my best interests when it makes decisions which affect me.	.34	.58			
7.	Help is available from the organisation when I have a problem.	.67	.02			
8.	The organisation really cares about my well-being.	.73	.35			
9.	Even is I did the best job possible, the organisation would fail to notice.	.47	.58			
10.	The organisation is willing to help me when I need a special favour.	.67	.18			
11.	The organisation cares about my general satisfaction at work.	.75	.34			
12.	If given the opportunity, the organisation would take advantage of me.	.27	.69			
13.	The organisation shows very little concern for me.	.59	.56			
14.	The organisation cares about my opinions.	.64	.46			
15.	The organisation takes pride in my accomplishments at work.	.63	.38			
16.	The organisation tries to make my job as interesting as possible.	.58	.41			

Measure	Item	Factor loadings			
Cynicism					
1.	The rules that we're supposed to follow here never seem very clear.	.52	.12	.03	.56
2.	The rules and regulations are not clear enough that I know what I can and cannot do on my job.	.19	.03	.04	.75
3.	Many of the laws that we are supposed to enforce don't seem to make much sense.	.07	.15	.13	.71
4.	The instructions I'm given on how to do my work are often vague and contradictory.	.58	.08	-.11	.44
5.	The major problem here is that the officials who are in charge don't really understand what the average officer has to face each day.	.65	.20	.24	.03
6.	The people in charge here are mostly looking out for themselves and don't really care about what happens to the rest of us.	.78	.14	.02	.12
7.	Promotions here are based on whom you know rather than on what you know.	.59	.24	-.02	.14
8.	The people in charge here never seem to respect the officers who do the real work.	.79	.01	.06	.14
9.	New changes and reforms are weakening the traditional authority of the police officer.	.40	.30	.40	-.26
10.	The courts have given offenders so may rights that it is practically impossible to maintain law and order.	.24	.23	.61	.17
11.	The police should have the right to listen to and record telephone conversations is they believe that they need to do so.	-.01	.12	.75	.03
12.	When a person is arrested, he should be held in jail until his case come to trial if the police and the prosecutor believe this is necessary.	-.05	.06	.76	.07
13.	Many citizens have a bad attitude toward police officers.	.08	.76	-.04	.17
14.	When testifying in court, the police officer is often treated as criminal when asked to take the witness stand.	.10	.59	.20	.34
15.	Citizens in recent years seem to have a more defiant attitudes than ever before.	.19	.74	.23	.00
16.	In the past few years, the respect shown to officers by citizens has decreased.	.22	.77	.20	-.04
Met-expectations.					
1.	Salary.	.40	.05	.49	-.14
2.	Career advancement.	.70	-.01	.10	.03
3.	Opportunities to develop new skills.	.57	-.07	.14	.20
4.	Status / prestige.	.62	-.07	.17	.11
5.	Influence in the organisation.	.72	.07	-.05	.04
6.	Stress.	.09	.75	.03	.23
7.	Hours required.	-.07	.76	.13	-.04
8.	Quality of supervision.	.22	.09	-.14	.74
9.	Compatibility of colleagues.	.05	-.01	.16	.62
10.	Type of work expected of me.	.12	-.52	.20	.36
11.	Physical conditions.	-.12	-.14	.65	.36
12.	Benefits and perks.	.28	.15	.71	-.02

Measures	Item	Factor loadings									
Commitment Propensity.											
1.	I always carefully weigh costs and benefits when making decisions which affect my life.	.09	-.19	-.02	.23	.49	.06	.23	-.06	-.15	.11
2.	I often make quick decisions which have a lot of implications for my life.	.04	.03	.01	-.00	.78	.01	-.10	-.01	.02	-.02
3.	I am a somewhat impulsive person.	.03	.09	.05	-.07	.74	-.03	-.08	.01	.12	.00
4.	I am comfortable making major decisions according to 'gut' feel.	-.14	.16	-.01	-.19	.49	-.06	-.13	.33	.17	-.06
5.	A never make major decisions quickly.	-.10	-.06	-.01	.11	.62	-.04	.05	-.06	-.12	-.03
6.	How much time did you spend around police officers while you were growing up?	-.01	.09	.18	.05	.00	.08	.00	-.05	-.01	.81
7.	Do you have a family member who is / was in the police service.	.00	-.04	-.07	-.00	.01	.03	.01	-.06	-.03	-.84
8.	I had a strong desire to be a police officer.	.02	.22	.10	.75	.00	.01	.01	.05	-.09	-.01
9.	I thought I would enjoy participating in police ceremonies (such as marching and parades).	.03	.04	.03	.66	-.04	-.07	.14	.16	-.01	.08
10.	I regretted my decision to go to the police academy.	.15	.24	.08	.52	.11	.07	-.01	-.17	.17	-.03
11.	I felt very committed to a police career.	.05	.39	.06	.62	.06	.08	.02	.13	-.04	-.00
12.	I was interested in a police career but, if it didn't work out, I would probably have been just as happy doing something else.	.03	.63	.04	.32	.02	-.03	-.08	.11	-.17	.04
13.	A police career was really the only career I could imagine for myself.	-.05	.59	.12	.33	-.02	-.09	.01	.13	-.40	.04
14.	I couldn't imagine staying with the police service until retirement.	.02	.77	-.02	.06	.01	-.08	.17	-.06	.04	.05
15.	I saw the police service as my life's work.	-.04	.71	.07	.29	-.00	.03	.15	.12	-.18	.07
16.	Based on my ability and the amount of work I do, I thought I would get high grades.	.20	.11	.06	.14	-.02	.12	.12	.78	-.06	.01
17.	I expected to do well at the Academy.	.38	.07	.15	.13	-.00	.14	.16	.71	-.02	.03
18.	I really had not failed at too many things I had tried to do.	.64	-.07	.02	.09	-.07	.09	.09	.35	-.02	-.00
19.	I was never really sure I could do something I had never tried to do.	.58	.24	.10	-.11	.06	.14	-.02	-.09	.12	-.08
20.	I had always been able to do well in anything I had tried.	.83	-.06	.01	.05	-.03	.05	.09	.09	-.02	.02
21.	I expected to accomplish whatever I set out to do.	.77	-.01	.05	.11	.03	.10	.12	.13	-.09	.02
22.	Anything I tried I could usually do.	.90	-.07	.05	.06	-.02	.07	.12	.06	-.05	.01
23.	I had a good idea about what the academy would be like.	.11	.03	.85	.03	.02	.07	.05	.05	-.01	.07
24.	I thought I had a pretty good idea about what the police service would be like.	.06	.04	.81	.12	-.02	.05	.06	.05	-.08	.08
25.	I turned down other job offers or a place in tertiary education to join the police service.	.07	.03	.04	-.02	-.08	.70	.03	.10	-.11	.06
26.	I did nor pursue alternative opportunities outside of the police service.	-.06	-.09	.01	.00	-.03	-.04	-.05	.02	.75	.08
27.	The police service was really the only organisation that accepted me.	.16	.03	.03	.15	.06	.43	-.02	-.06	.41	-.09
28.	The police service was only one alternative form among many opportunities.	.10	-.12	.01	-.02	-.00	.74	.01	.07	.08	-.01
29.	The police service was my only choice of occupation.	-.00	-.33	-.09	-.09	.01	.19	.05	-.05	.65	-.04
30.	When I chose the police service, I had many other opportunities.	.13	-.03	.09	.02	.01	.77	.09	.03	.12	.02
31.	How much would you say you knew about what it meant to be a police recruit?	.04	.05	.79	.07	.04	.03	.21	.05	.04	.12
32.	How confident did you feel that someday the people you knew would look up to you?	.07	.06	.11	.12	-.04	.05	.80	.07	-.03	.04
33.	How confident were you that your success in the future job or career was assured?	.30	.15	.18	.01	-.03	.03	.71	.20	-.02	-.06
34.	In general, how confident did you feel about your abilities?	.52	.14	.14	.02	-.06	.11	.57	.01	.05	-.03

Appendix 4.4.
Comparison of rank between respondents and nonrespondents within cohorts (i.e., looking for bias).

Cohort	Chi^2	(df)
1. 1993	1.19	(1)
2. 1992	12.66**	(2)
3. 1991	8.65	(3)
4. 1990	4.72	(2)
5. 1989	0.62	(2)
6. 1988	1.90	(2)
7. 1987	1.40	(2)
8. 1979	3.16	(4)
9. 1978	3.16	(3)
10. 1077	0.13	(1)

Note. The significant difference in cohort 2, is explained by the fact that seven officers who were ranked senior constable all failed to respond. It is highly likely, however, that these officers were rejoinees (i.e., in order for them to be this rank after two years of service, they must have been recognised for prior service). On this basis, these officers would have been excluded from the analyses anyway.

** $p < .01$

Appendix 4.5.
Calculation of nonrespondents' average response required to change the respondents' average response.

Formula:

$$ARnr = \frac{TnARs - RnARr}{NRn}$$

where: ARnr = average response level for the OCQ of nonrespondents
Tn = total number of sample
ARs = average OCQ score used for inferring conclusions
Rn = number of respondents
ARr = average OCQ score of the respondents
NRn = number of nonrespondents

Cohort	Tn	ARs	Rn	ARr	NRn	ARnr	SDr
1	120	4.56	65	5.12	55	3.90	0.85
2	120	4.56	60	4.94	60	4.18	0.88
3	120	4.56	67	4.76	53	4.31	0.95
4	120	4.56	62	4.66	58	4.45	1.06
5	120	4.56	74	4.52	46	4.62	1.00
6	120	4.56	73	4.63	47	4.45	0.95
7	120	4.56	77	4.60	43	4.49	0.99
8	120	4.56	78	4.23	42	5.17	0.93
9	120	4.56	83	4.21	37	5.35	1.10
10	120	4.56	71	3.97	49	5.41	1.23

Note. SDr is the standard deviation for the OCQ scores of the respondents within each cohort.

Appendix 4.6.
Summary of analysis of variance: Country (2) by Cohort (10).

Dependent variable: Organisational commitment (1994).
Independent factors: Country (Australia v New Zealand).
Cohort (1977, 1978, 1979, 1987, 1988, 1989, 1990, 1991, 1992, 1993).

Source	SS	df	MS	F
Country (C)	33.35	1	33.35	37.28**
Cohort (CH)	91.85	9	10.21	11.41**
C x CH	11.96	9	1.33	1.49
Explained	137.16	19	7.22	8.06**
Residual	911.72	1019	0.90	
Total	1048.88	1038		

** $p < .001$

Significant Post hoc (Scheffe) tests.

Contrast			M (SD)
1. Country:	Australia		4.56 (1.05)
	v	New Zealand	4.94 (0.86)
2. Cohort	1993		5.22 (0.81)
	v	1977	4.20 (1.15)
	v	1978	4.47 (1.02)
	v	1979	4.37 (0.92)
	v	1988	4.64 (0.93)
	1992		5.17 (0.86)
	v	1977	4.20 (1.15)
	v	1978	4.47 (1.02)
	v	1979	4.37 (0.92)
	1991		4.78 (0.89)
	v	1977	4.20 (1.15)

Appendix 4.7.
Gender differences in organisational commitment.

Cohort	N_{male}	N_{female}	X_{male}	(SD)	X_{female}	(SD)	t
1. 1993	56	28	5.17	(0.86)	5.29	(0.73)	0.63
2. 1992	72	24	5.26	(0.89)	4.90	(0.73)	1.80
3. 1991	81	17	4.81	(0.90)	4.65	(0.85)	0.66
4. 1990	69	17	4.70	(1.05)	4.61	(0.99)	0.29
5. 1989	91	21	4.89	(0.93)	4.10	(1.11)	3.30**
6. 1988	91	15	4.65	(0.96)	4.53	0.78)	0.46
7. 1987	100	9	4.79	(0.97)	4.28	(0.79)	1.52
8. 1979	107	10	4.38	(0.92)	4.27	(0.94)	0.36
9. 1978	115	4	4.47	(1.02)	4.57	(1.02)	0.18
10. 1977	97	5	4.15	(1.13)	5.39	(0.89)	2.42

* $p < .01$, ** $p < .001$

Appendix 4.8.
Rank and posting (duties) frequencies.

	Frequency (n)	(%)
Rank		
Probationary Officer	65	6.3
Constable	486	46.8
Constable First Class	148	14.2
Senior Constable	205	19.7
Detective (New Zealand only)	17	1.6
Sergeant	101	9.7
Senior Sergeant	13	1.3
Commissioned Officer	2	.2
Missing	1	.2
Total	1038	100
Posting		
Patrol / general duties	630	60.6
Detective / criminal investigation	139	13.4
Task force / special squad	36	3.5
Physical specialists [e.g., rescue, water police, airwing, canine squad]	49	4.7
Community policing	34	3.3
Administration [including policy research and internal investigation]	82	7.9
Specialists [e.g., training, technical services, and prosecution]	54	5.2
Missing	14	1.4
Total	1038	100

Appendix 4.9.

Factor scores for measures with more than two items from Surveys 2 (n = 558) and 3 (n = 539).

Survey 2 Measures	Item	Factor loadings	
OCQ			
	1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.	**.67**	-.18
	2. I talk up this organisation to my friends a as a great organisation to work for.	**.79**	.17
	3. I feel very little loyalty to the this organisation.	.42	**.36**
	4. I would accept almost any type of job assignment in order to keep working for this organisation.	**.47**	.13
	5. I find that my values and the organisation's values are very similar.	**.71**	-.06
	6. I am proud to tell others that I am part of this organisation.	**.73**	.23
	7. I could just as well be working for a different organisation as long as the type of work was similar.	-.10	**.84**
	8. This organisational really inspires the very best in me in the way of job performance.	**.72**	.09
	9. It would take very little change in my present circumstances to cause me to leave this organisation.	**.53**	.46
	10. I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.	**.73**	.32
	11. There's not too much to be gained by sticking with this organisation indefinitely.	**.62**	.36
	12. Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees.	**.46**	.13
	13. I really care about the fate of this organisation.	**.60**	.09
	14. For me this is the best of all possible organisations for which to work.	**.70**	.35
	15. Deciding to work for this organisation was a definite mistake on my part.	**.70**	.34
Communication: Quality ("Overall, formal communication in the service ...")			
	1. Provides adequate information about what I should do in particular situations (that is, policy).	**.83**	-.05
	2. Provides adequate information about how I should do things (that is, procedure).	**.84**	-.05
	3. Provides adequate information about legislative changes affecting police.	**.77**	.10
	4. Provides sufficient explanation as to why changes have occurred.	**.56**	.34
	5. Consists of too many publications.	.01	**.66**
	6. Is timely - the information is delivered when it is needed.	.45	**.52**
	7. Is generally relevant to me.	**.43**	.32
	8. Is not repetitive - items are not repeated in different communication sources.	.02	**.79**
	9. Is satisfactory.	**.66**	.45
Communication: Information exchange.			
	1. I am able to communicate suggestions for change to my immediate supervisor.	.29	**.48**
	2. Having to communicate through "normal channels" restricts my ability to communicate suggestions for changes.	.10	**.78**
	3. Communication ideas would be improved if I was able to access ranks higher than my immediate supervisor.	-.04	**.80**
	4. Formal meetings at my level are held on a regular basis.	**.63**	.37
	5. I generally attend formal meetings at my level.	**.82**	-.11
	6. Formal meetings at my level generally provide me with a good deal of useful information.	**.80**	.16

Measures	Item	Factor loadings	
Perceived organisational support.			
1.	The organisation values my contribution to its well-being.	.65	.28
2.	If the organisation could hire someone to replace me at a lower salary it would do so.	.05	.77
3.	The organisation fails to appreciate any extra effort from me.	.26	.77
4.	The organisation strongly considers my goals and values.	.62	.34
5.	The organisation would ignore any complaint from me.	.43	.40
6.	The organisation disregards my best interests when it makes decisions which affect me.	.27	.62
7.	Help is available from the organisation when I have a problem.	.63	.10
8.	The organisation really cares about my well-being.	.70	.31
9.	Even is I did the best job possible, the organisation would fail to notice.	.46	.58
10.	The organisation is willing to help me when I need a special favour.	.65	.13
11.	The organisation cares about my general satisfaction at work.	.73	.29
12.	If given the opportunity, the organisation would take advantage of me.	.46	.57
13.	The organisation shows very little concern for me.	.55	.55
14.	The organisation cares about my opinions.	.72	.31
15.	The organisation takes pride in my accomplishments at work.	.68	.28
16.	The organisation tries to make my job as interesting as possible.	.64	.29
Self Esteem			
1.	On the whole, I think I am satisfied with myself.	.57	.42
2.	At times I think I am no good at all.	.76	.15
3.	I feel that I have a number of good qualities.	.14	.87
4.	I am able to do things as well as most other people.	.13	.84
5.	I feel that I do not have much to be proud of.	.58	.29
6.	I certainly feel useless at times.	.79	-.04
7.	I feel that I'm a person of worth, at east on an equal plane with others.	.31	.75
8.	I wish I could have more respect for myself.	.71	.33
9.	All in all, I am inclined to feel that I am a failure.	.57	.41
10.	I take a positive attitude toward myself.	.56	.60
Role Conflict			
1.	I have to do things that should be done differently.	.59	.24
2.	I received assignments without the the staffing support to complete them.	.80	.10
3.	I seem to have to buck a rule or policy in order to carry out an assignment.	.73	.24
4.	I work with two or more groups who operate quite differently.	.13	.81
5.	I receive incompatible requests from two or more people.	.32	.80
6.	I do things that are apt to be accepted by one persona nd not accepted by others.	.28	.76
7.	I receive assignments without adequate resources and materials to execute them.	.74	.27
8.	I work on unnecessary things.	.66	.22

Survey 3 Measures	Item	Factor loading		
OCQ				
1.	I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.	.72	.04	-.05
2.	I talk up this organisation to my friends a as a great organisation to work for.	.70	.36	.14
3.	I feel very little loyalty to the this organisation.	.43	.09	.43
4.	I would accept almost any type of job assignment in order to keep working for this organisation.	.49	.23	-.04
5.	I find that my values and the organisation's values are very similar.	.40	.57	-.06
6.	I am proud to tell others that I am part of this organisation.	.68	.31	.21
7.	I could just as well be working for a different organisation as long as the type of work was similar.	-.03	.04	.83
8.	This organisational really inspires the very best in me in the way of job performance.	.61	.41	.10
9.	It would take very little change in my present circumstances to cause me to leave this organisation.	.27	.48	.51
10.	I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.	.62	.38	.39
11.	There's not too much to be gained by sticking with this organisation indefinitely.	.25	.63	.39
12.	Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees.	.05	.84	.10
13.	I really care about the fate of this organisation.	.71	-.04	.25
14.	For me this is the best of all possible organisations for which to work.	.65	.36	.39
15.	Deciding to work for this organisation was a definite mistake on my part.	.62	.26	.39
Communication: Quality ("Overall, formal communication in the service ...")				
1.	Provides adequate information about what I should do in particular situations (that is, policy).	.79	.03	
2.	Provides adequate information about how I should do things (that is, procedure).	.83	.04	
3.	Provides adequate information about legislative changes affecting police.	.78	.12	
4.	Provides sufficient explanation as to why changes have occurred.	.67	.20	
5.	Consists of too many publications.	-.06	.70	
6.	Is timely - the information is delivered when it is needed.	.53	.47	
7.	Is generally relevant to me.	.37	.42	
8.	Is not repetitive - items are not repeated in different communication sources.	.15	.74	
9.	Is satisfactory.	.66	.46	
Communication: Information exchange.				
1.	I am able to communicate suggestions for change to my immediate supervisor.	.41	.46	
2.	Having to communicate through "normal channels" restricts my ability to communicate suggestions for changes.	.12	.84	
3.	Communication ideas would be improved if I was able to access ranks higher than my immediate supervisor.	-.03	.84	
4.	Formal meetings at my level are held on a regular basis.	.55	.36	
5.	I generally attend formal meetings at my level.	.82	-.14	
6.	Formal meetings at my level generally provide me with a good deal of useful information.	.80	.14	

Measures	Item	Factor loadings	
Perceived organisational support.			
1.	The organisation values my contribution to its well-being.	.62	.39
2.	If the organisation could hire someone to replace me at a lower salary it would do so.	.16	.70
3.	The organisation fails to appreciate any extra effort from me.	.25	.75
4.	The organisation strongly considers my goals and values.	.51	.48
5.	The organisation would ignore any complaint from me.	.19	.62
6.	The organisation disregards my best interests when it makes decisions which affect me.	.30	.62
7.	Help is available from the organisation when I have a problem.	.60	.25
8.	The organisation really cares about my well-being.	.65	.48
9.	Even is I did the best job possible, the organisation would fail to notice.	.34	.63
10.	The organisation is willing to help me when I need a special favour.	.72	.20
11.	The organisation cares about my general satisfaction at work.	.78	.34
12.	If given the opportunity, the organisation would take advantage of me.	.39	.58
13.	The organisation shows very little concern for me.	.50	.60
14.	The organisation cares about my opinions.	.70	.38
15.	The organisation takes pride in my accomplishments at work.	.76	.18
16.	The organisation tries to make my job as interesting as possible.	.71	.27
Self Esteem			
1.	On the whole, I think I am satisfied with myself.	.53	.51
2.	At times I think I am no good at all.	.76	.24
3.	I feel that I have a number of good qualities.	.16	.88
4.	I am able to do things as well as most other people.	.18	.87
5.	I feel that I do not have much to be proud of.	.50	.34
6.	I certainly feel useless at times.	.79	-.05
7.	I feel that I'm a person of worth, at east on an equal plane with others.	.23	.79
8.	I wish I could have more respect for myself.	.77	.21
9.	All in all, I am inclined to feel that I am a failure.	.69	.39
10.	I take a positive attitude toward myself.	.61	.53
Role Conflict			
1.	I have to do things that should be done differently.	.54	.26
2.	I received assignments without the the staffing support to complete them.	.81	.10
3.	I seem to have to buck a rule or policy in order to carry out an assignment.	.74	.24
4.	I work with two or more groups who operate quite differently.	.11	.77
5.	I receive incompatible requests from two or more people.	.34	.78
6.	I do things that are apt to be accepted by one persona nd not accepted by others.	.25	.76
7.	I receive assignments without adequate resources and materials to execute them.	.77	.18
8.	I work on unnecessary things.	.67	.27

Appendix 4.10.
Summary of analyses of variance comparing respondents to one, two and three surveys.

Measures	M (SD) 1994/5/6[a]	1994/5 or 6	1994	$F_{(df)}$	p
1. **Organisational commitment**	4.58 (1.06)	4.56 (1.09)	4.43 (0.94)	0.82	.44
2. Understanding of goals	3.66 (1.09)	3.60 (1.10)	3.47 (1.13)	1.25	.29
Personal Characteristics					
3. Protestant Work ethic	4.41 (0.63)	4.46 (0.56)	4.34 (0.62)	1.12	.33
4. Cynicism: Rules and regulations	3.70 (1.22)	3.52 (1.30)	3.61 (1.32)	1.17	.31
5. Senior officers	5.04 (1.33)	4.92 (1.40)	4.91 (1.45)	1.33	.27
6. Legal system	5.19 (1.25)	5.29 (1.17)	5.01 (1.26)	1.41	.25
7. Citizens	5.40 (1.13)	5.35 (1.18)	5.35 (1.17)	0.15	.86
8. Investments	6.59 (1.19)	6.61 (1.11)	6.21 (1.28)	1.35	.01
Leader (Formal) Organisational Climate					
9. Communication: Quality	3.06 (0.67)	3.10 (0.63)	3.06 (0.60)	0.17	.85
10. Information exchange	3.13 (0.63)	3.20 (0.72)	3.09 (0.68)	0.85	.43
11. Participation in decision-making	3.07 (1.33)	3.33 (1.58)	3.21 (1.25)	2.09	.12
12. Perceived organisational support	3.40 (1.05)	3.41 (1.13)	3.50 (1.10)	0.34	.71
Work group (Informal) Organisational Climate					
13. Peer cohesion	4.90 (1.47)	4.95 (1.51)	4.86 (1.57)	0.11	.89
14. Commitment norm	5.18 (1.10)	5.05 (1.19)	4.98 (1.06)	1.74	.18
15. Social involvement	1.73 (0.44)	1.78 (0.42)	1.73 (0.45)	0.76	.47
Met-expectations					
16. Confirmed expectations	3.70 (1.44)	3.79 (1.39)	3.69 (1.24)	0.94	.39
17. Specific: Career development	1.68 (0.39)	1.66 (0.38)	1.67 (0.37)	0.04	.96
18. Employment conditions	1.67 (0.36)	1.67 (0.37)	1.68 (0.36)	0.00	1.0
19. Working conditions	1.76 (0.40)	1.78 (0.38)	1.78 (0.39)	0.38	.69
20. Work group	1.86 (0.46)	1.95 (0.43)	1.89 (0.45)	2.07	.13

[a] n = 479; n = 139; n = 92.

Appendix 4.11.
Summary of oneway analysis of variance (Cohort) for organisational commitment in 1995.
Dependent variable: Organisational commitment (1995)
Independent factors: Cohort (1977, 1978, 1979, 1987, 1988, 1989, 1990, 1991, 1992, 1993).

Source	SS	df	MS	F
Cohort	22.70	9	2.52	2.15*
Within Groups	641.58	546	1.18	
Total	664.28	555		

* $p < .05$.

Note. None of the Post hoc (Scheffe) tests were significant.

Appendix 4.12.
Summary of oneway analysis of variance (Cohort) for organisational commitment in 1996.

Dependent variable: Organisational commitment (1996)
Independent factors: Cohort (1977, 1978, 1979, 1987, 1988, 1989, 1990, 1991, 1992, 1993).

Source	SS	df	MS	F
Cohort	8.73	9	0.97	0.73
Within Groups	623.84	469	1.33	
Total	632.57	478		

Note. None of the Post hoc (Scheffe) tests were significant.

Appendix 4.13.
Summary of repeated measures analyses of variance of organisational commitment in groups varying by tenure and cohort (i.e., testing the matrices of the developmental model).

a. 2 and 3 years of service; cohorts 1 and 2.

Source	df	SS	MS	F
Cohort	1	5.59	5.59	3.56
Within + Residual	78	122.38	1.57	
Tenure	1	7.06	7.06	19.69***
Tenure x Cohort	1	1.38	1.38	3.84*
Within + Residual	78	27.96	0.36	

b. 3 and 4 years of service; cohorts 2 and 3.

Source	df	SS	MS	F
Cohort	1	5.08	5.08	2.87
Within + Residual	81	143.40	1.77	
Tenure	1	0.87	0.87	3.68
Tenure x Cohort	1	1.56	1.56	6.62**
Within + Residual	81	19.10	0.24	

c. 4 and 5 years of service; cohorts 3 and 4.

Source	df	SS	MS	F
Cohort	1	1.02	1.02	0.49
Within + Residual	84	175.67	2.09	
Tenure	1	6.63	6.63	21.24***
Tenure x Cohort	1	0.84	0.84	2.68
Within + Residual	84	26.21	0.31	

d. 5 and 6 years of service; cohorts 4 and 5.

Source	df	SS	MS	F
Cohort	1	11.56	11.56	5.56*
Within + Residual	85	176.60	2.08	
Tenure	1	2.28	2.28	7.56**
Tenure x Cohort	1	0.35	0.35	1.16
Within + Residual	85	25.63	0.30	

e. 6 and 7 years of service; cohorts 5 and 6.

Source	df	SS	MS	F
Cohort	1	0.96	0.96	0.51
Within + Residual	96	181.24	1.89	
Tenure	1	7.01	7.01	16.75***
Tenure x Cohort	1	0.47	0.47	1.12
Within + Residual	96	40.18	0.42	

Appendix 4.13: continued.

f. 7 and 8 years of service; cohorts 6 and 7.

Source	df	SS	MS	F
Cohort	1	7.65	7.65	4.35*
Within + Residual	99	174.24	1.76	
Tenure	1	7.02	7.02	23.83***
Tenure x Cohort	1	0.01	0.01	0.02
Within + Residual	99	29.16	0.29	

g. 16 and 17 years of service; cohorts 8 and 9.

Source	df	SS	MS	F
Cohort	1	0.88	0.88	0.42
Within + Residual	114	240.46	2.11	
Tenure	1	2.02	2.02	5.14*
Tenure x Cohort	1	0.05	0.05	0.12
Within + Residual	114	44.85	0.39	

h. 17 and 18 years of service; cohorts 9 and 10.

Source	df	SS	MS	F
Cohort	1	0.69	0.69	0.24
Within + Residual	104	294.85	2.84	
Tenure	1	1.89	1.89	5.88*
Tenure x Cohort	1	0.01	0.01	0.02
Within + Residual	104	33.32	0.32	

Appendix 4.14.
Summary of a repeated measures analysis of variance comparing commitment levels of four promotional groups.

Repeated measure: Organisational commitment 1995
Organisational commitment 1996
Between groups: Promotion group (1 = expect and get promotion; 2 = not expect but get promotion; 3 = not expect and don't get promotion; 4 = expect but don't get promotion)
Covariate: Years of service (tenure)

Source	df	SS	MS	F
Between subjects				
Regression (Yrs serv)	1	0.70	0.70	0.33
Promotion group	3	45.02	15.01	7.22**
Within + residual	479	995.53	2.08	
Within subjects				
Time	1	9.94	9.94	29.18**
Promotion group x Time	3	0.73	0.24	0.71
Within + residual	480	163.53	0.34	

Planned comparisons.

Parameter	Comparison groups	t
1	1 & 2	-1.36
2	(1 + 2) & 3	-3.77**
3	(1 + 2 + 3) & 4	1.44

** $p < .001$.

Appendix 6.1.
Summary of a repeated measures analysis of variance comparing commitment levels of recruits across time.

Repeated measure: Early Academy Training Organisational commitment (EA)
Late Academy Training Organisational commitment (LA)
Post-Field Training Organisational commitment (PF)
Post-Probationary Organisational commitment (PP)

Source	df	SS	MS	F
Within subjects				
Time	3	3.24	0.24	4.53**
Within + residual	30	7.15	0.24	

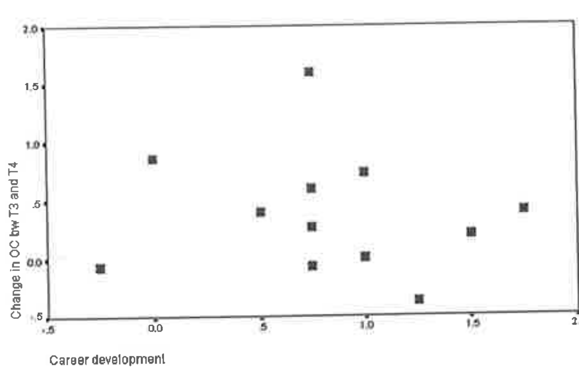
Post-hoc contrasts (related t-tests).

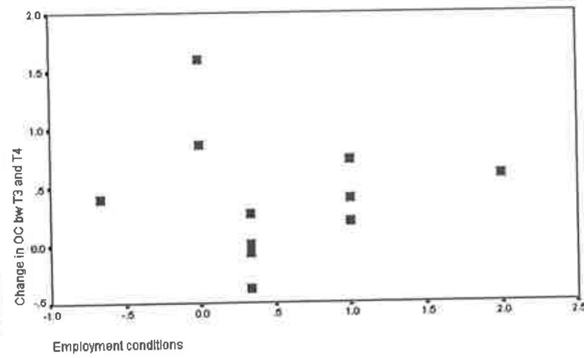
Parameter	Comparison groups	t
1	EA & LA	.41
2	LA & PF	2.56*
3	PF & PP	1.17
4	EA & PF	1.98
5	EA & PP	2.69*
6	LA & PP	2.31*

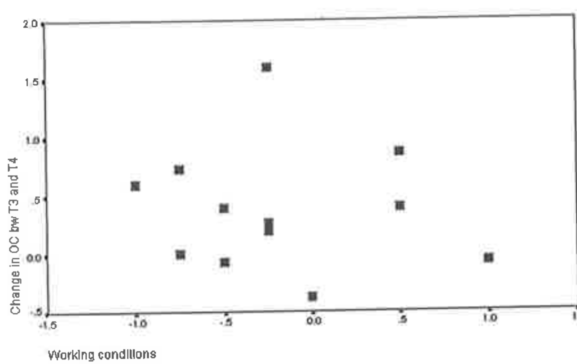
* $p < .05$, ** $p < .01$.

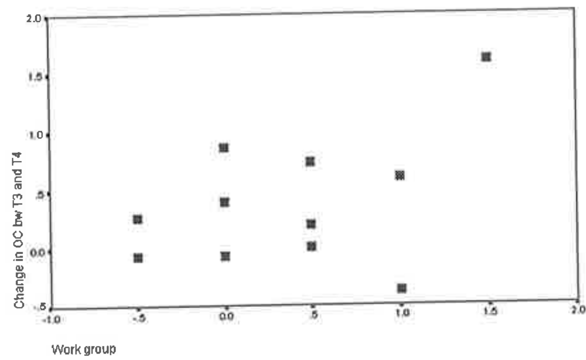
Appendix 6.2.

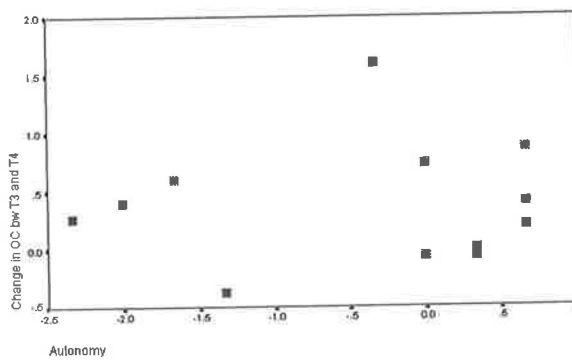
Scattergrams showing the relationships between change in organisational commitment (T3 to T4) and (un)met-expectations.

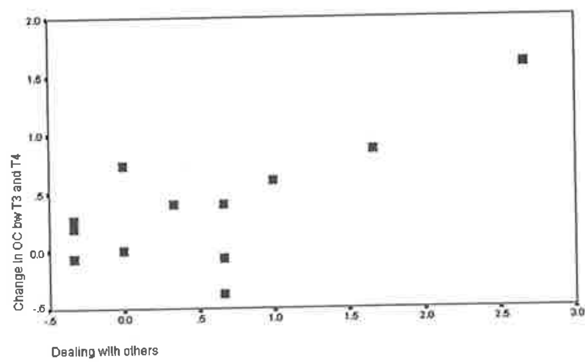


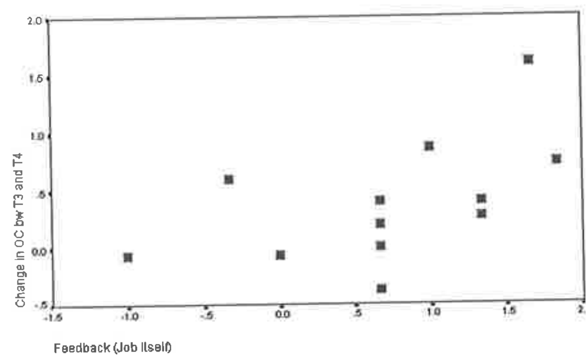


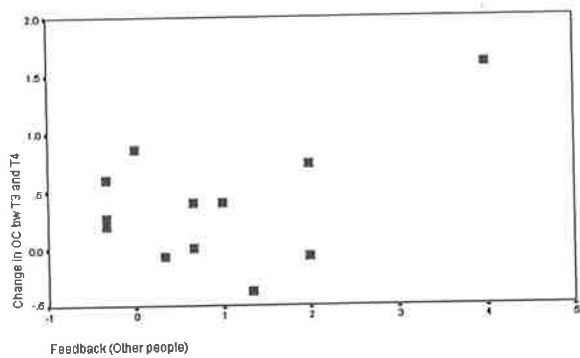




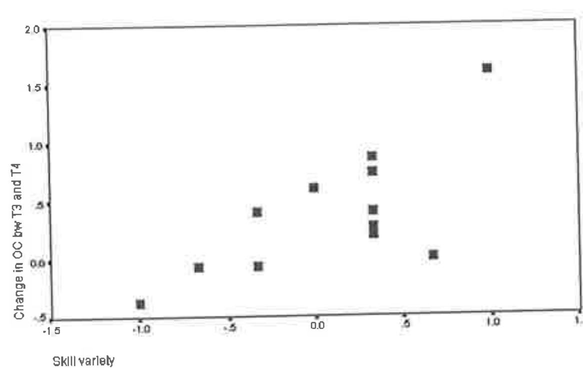


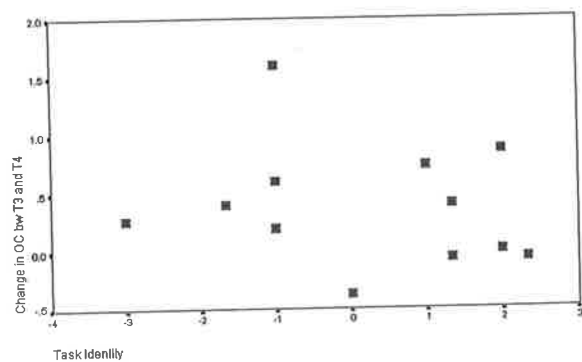


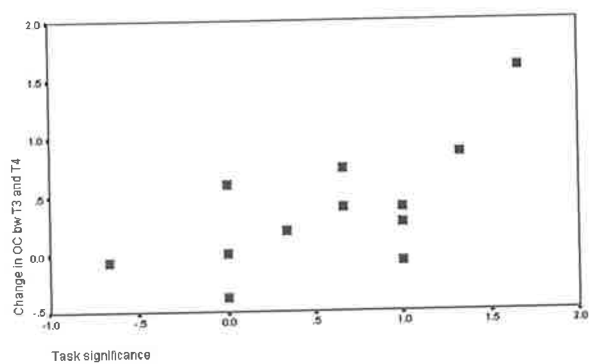




Appendix 6.2. (continued).







Appendix 6.3.
Correlations between organisational commitment and the subscales of commitment propensity.

Measure	X	(SD)	r			
			OC(T2)	OC(T3)	OC(T4)	OC(T5)
Commitment Propensity	.1176	(0.34)	.59**	.44	.14	.40
Subscale:						
Desire for a police career	.0045	(0.81)	.55*	.03	-.19	.23
Expectations about police career	.0000	(0.72)	.39	.39	.03	-.03
Familiarity with policing	.0000	(0.41)	.35	.46	.14	.21
Sacrifice associated with decision to join	.0000	(0.66)	-.14	.03	.48	.40
Self confidence	.0000	(0.77)	.44	.45	.32	.46
Self efficacy	.8214	(0.57)	.14	.19	-.11	.17
Volition associated with decision to join	-.0026	(0.47)	.42	.16	-.19	-.05

* $p < .05$, ** $p < .01$.

Appendix 6.4.
Summary of a repeated measures analysis of variance assessing changes in recruits' levels of task significance.

Repeated measure: Expectation of Task significance (T1)
Experience of Task significance (T4)
Experience of Task significance (T5)

Source	df	SS	MS	F
Time	2	3.21	1.61	7.55**
Within + residual	26	5.53	0.21	

Post-hoc contrasts (related sample t-tests)

Parameter	Groups	t
1	1 & 2	3.23*
2	1 & 3	3.75*
3	2 & 3	0.37

* $p < .01$, ** $p < .001$.

Appendix 6.5.

Summary of t-tests comparing South Australian and New South Wales probationary officers on all comparable measures.

Measure		$M_{South\ Australia}$		$M_{New\ South\ Wales}$		t
Age		25.20	4.19	24.03	4.01	1.17
Age at recruitment		23.25	4.19	22.55	3.96	0.68
Understanding of organisational goals		4.00	0.76	3.41	0.99	2.18*
Cynicism:	Rules and regulations	2.35	1.07	3.40	1.05	3.49***
	Senior officers	4.35	1.39	4.12	1.14	0.67
	Legal system	4.84	1.13	4.98	1.10	0.44
	Citizens	4.65	1.17	5.25	1.04	1.96*
Investments		6.44	1.04	6.34	1.18	0.33
Communication:	Quality	3.38	0.44	3.37	0.51	0.06
	Information exchange	3.11	0.69	3.13	0.57	0.10
Perceived organisational support		4.06	1.03	3.99	0.83	0.25
Participation in decision-making		3.53	1.03	3.33	1.20	0.61
Commitment norms		5.07	1.52	5.28	1.05	0.64
Peer cohesion		5.33	1.46	4.89	1.37	1.11
Confirmed expectations		4.80	1.52	4.37	1.32	1.11
Specific expectations:	Career development	1.73	0.31	1.84	0.28	1.31
	Employment conditions	1.76	0.37	1.77	0.29	0.15
	Work conditions	1.82	0.33	1.85	0.39	0.22
	Work group	2.00	0.33	2.05	0.49	0.40

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix 7.1.

Factor scores for measures with more than two items from the Nonsworn Survey (n = 855) .

Measures	Item	Factor loading		
OCQ				
1.	I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful.	.77	-.09	-.01
2.	I talk up this organisation to my friends a as a great organisation to work for.	.65	.35	.27
3.	I feel very little loyalty to the this organisation.	.34	.60	-.32
4.	I would accept almost any type of job assignment in order to keep working for this organisation.	.16	.02	.80
5.	I find that my values and the organisation's values are very similar.	.61	.32	.21
6.	I am proud to tell others that I am part of this organisation.	.62	.42	.32
7.	I could just as well be working for a different organisation as long as the type of work was similar.	.11	.34	.41
8.	This organisational really inspires the very best in me in the way of job performance.	.46	.43	.41
9.	It would take very little change in my present circumstances to cause me to leave this organisation.	.13	.69	.23
10.	I am extremely glad that I chose this organisation to work for, over others I was considering at the time I joined.	.48	.44	.38
11.	There's not too much to be gained by sticking with this organisation indefinitely.	.12	.69	.32
12.	Often, I find it difficult to agree with this organisation's policies on important matters relating to its employees.	.08	.62	.05
13.	I really care about the fate of this organisation.	.75	.18	.12
14.	For me this is the best of all possible organisations for which to work.	.44	.48	.51
15.	Deciding to work for this organisation was a definite mistake on my part.	.42	.61	.23
Communication: Quality ("Overall, formal communication in the service ...")				
1.	Provides adequate information about what I should do in particular situations (that is, policy).	.84	-.10	
2.	Provides adequate information about how I should do things (that is, procedure).	-.82	.13	
3.	Provides adequate information about legislative changes affecting police.	-.82	.03	
4.	Provides sufficient explanation as to why changes have occurred.	.80	.15	
5.	Consists of too many publications.	-.14	.71	
6.	Is timely - the information is delivered when it is needed.	.65	.30	
7.	Is generally relevant to me.	.49	.31	
8.	Is not repetitive - items are not repeated in different communication sources.	.22	.70	
9.	Is satisfactory.	.77	.26	
Communication: Information exchange.				
1.	I am able to communicate suggestions for change to my immediate supervisor.	.46	.51	
2.	Having to communicate through "normal channels" restricts my ability to communicate suggestions for changes.	.02	.84	
3.	Communication ideas would be improved if I was able to access ranks higher than my immediate supervisor.	.04	.86	
4.	Formal meetings at my level are held on a regular basis.	.74	.23	
5.	I generally attend formal meetings at my level.	.81	-.18	
6.	Formal meetings at my level generally provide me with a good deal of useful information.	.82	.13	

Measures	Item	Factor loadings	
Perceived organisational support.			
1.	The organisation values my contribution to its well-being.	.56	.48
2.	If the organisation could hire someone to replace me at a lower salary it would do so.	.13	.63
3.	The organisation fails to appreciate any extra effort from me.	.26	.74
4.	The organisation strongly considers my goals and values.	.47	.48
5.	The organisation would ignore any complaint from me.	.40	.51
6.	The organisation disregards my best interests when it makes decisions which affect me.	.35	.60
7.	Help is available from the organisation when I have a problem.	.71	.15
8.	The organisation really cares about my well-being.	.77	.28
9.	Even is I did the best job possible, the organisation would fail to notice.	.25	.73
10.	The organisation is willing to help me when I need a special favour.	.73	.16
11.	The organisation cares about my general satisfaction at work.	.78	.33
12.	If given the opportunity, the organisation would take advantage of me.	.25	.74
13.	The organisation shows very little concern for me.	.35	.68
14.	The organisation cares about my opinions.	.62	.46
15.	The organisation takes pride in my accomplishments at work.	.67	.41
16.	The organisation tries to make my job as interesting as possible.	.67	.37
Self Esteem			
1.	On the whole, I think I am satisfied with myself.	.62	.26
2.	At times I think I am no good at all.	.76	.18
3.	I feel that I have a number of good qualities.	.13	.86
4.	I am able to do things as well as most other people.	.13	.87
5.	I feel that I do not have much to be proud of.	.61	.20
6.	I certainly feel useless at times.	.77	-.03
7.	I feel that I'm a person of worth, at east on an equal plane with others.	.34	.71
8.	I wish I could have more respect for myself.	.73	.20
9.	All in all, I am inclined to feel that I am a failure.	.70	.30
10.	I take a positive attitude toward myself.	.57	.50

Appendix 7.2.

Summary of an analysis of variance comparing commitment levels of different nonsworn employee groups.

Dependent measure: Organisational commitment 1996

Between group factors: Status of position (High = middle or senior management or specialist; Low = clerical, administrative or maintenance). Qualifications (Unqualified = None; Low-level = certificate or diploma; Qualified = Bachelor or post-graduate degree).

Source	df	SS	MS	F
	Between subjects			
Qualifications (Q)	2	13.44	6.72	4.96**
Status (S)	1	4.50	4.50	3.32
Q x S	2	2.46	1.23	0.91
Within + residual	597	808.66	1.35	

Significant Post hoc (Scheffe) tests:

Contrast			M (SD)
1.	Qualified		4.08 (1.18)
	v	Unqualified	4.45 (1.20)
	v	Low-level	4.56 (1.12)

** $p < .001$.

Appendix 7.3.

Summary of an analysis of variance comparing commitment levels of police employee groups across tenure.

Dependent measure: Organisational commitment 1996

Between group factors: Employee sample (Unqualified nonsworn = nonsworn emloyees with no or low level qualifications; Qualified nonsworn = nonsworn employees with Bachelor or post-graduate degree; Police = Sworn police officers). Cohort (1 = 3 years experience; 2 = 4 years; 3 = 5 years; 4 = 6 years; 5 = 7 years; 6 = 8 years; 7 = 9 years).

Source	df	SS	MS	F
	Between subjects			
Employee sample (ES)	2	23.73	11.86	9.11**
Cohort (C)	6	1.05	0.18	0.14
ES x C	12	14.24	1.19	0.91
Within + residual	648	857.01	1.32	

Significant Post hoc (Scheffe) tests:

Contrast			M (SD)
1.	Unqualified		4.51 (1.12)
	v	Police	4.04 (1.15)

** $p < .001$.

Appendix 7.4.

Summary of an analysis of variance comparing commitment levels of police employee groups across tenure.

Dependent measure: Organisational commitment 1996

Between group factors: Employee sample (Unqualified nonsworn = nonsworn emloyees with no or low level qualifications; Qualified nonsworn = nonsworn employees with Bachelor or post-graduate degree; Police = Sworn police officers).
Tenure group (1 = 1 to 3 years experience; 2 = 4 to 9 years; 3 = 14 to 25 years).

Source	df	SS	MS	F
Between subjects				
Employee sample (ES)	2	63.16	31.58	23.99**
Tenure group (TG)	2	15.13	7.56	5.74**
ES x TG	8	14.56	3.64	2.77*
Within + residual	999	1397.61	1.40	

Post hoc tests (Oneway ANOVAs).

Group	df	SS	MS	F	Post hoc (Scheffe)
1. 1-3 years	2	44.57	22.28	17.01**	Unqual > (Qual = Police)
2. 4-9 years	2	17.31	8.66	6.72**	Unqual > Police
3. 14-25 years	2	15.83	7.92	5.74*	Unqual > Police
1. Unqualified	2	17.30	8.65	6.77**	(1-3) > [(4-9) = (14-25)]
2. Qualified	2	2.34	1.17	0.80	
3. Police	2	3.44	1.72	1.30	

** $p < .001$, * $p < .05$

References

Abelson, M. A. (1987). Examination of avoidable and unavoidable turnover. Journal of Applied Psychology, 72, 382-386.

Aldag, R. J., & Brief, A. P. (1977). Relationships between leader behavior variability indices and subordinate responses. Personnel Psychology, 30, 419-426.

Allen, N. J., & Meyer, J. P. (1990a). Organizational socialization tactics: A longitudinal analysis of links to newcomers' commitment and role orientation. Academy of Management Journal, 33, 847-858.

Allen, N. J. & Meyer, J. P. (1990b). 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. (1993). Organizational commitment: Evidence of career stage effects? Journal of Business Research, 26, 49-61.

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

Anderson, S. E., & Williams, L. J. (1992). Assumptions about unmeasured variables with studies of reciprocal relationships: The case of employee attitudes. Journal of Applied Psychology, 77, 638-650.

Angle, H. L., & Perry, J. L. (1981). An empirical assessment of organizational commitment and organizational effectiveness. Administrative Science Quarterly, 26, 1-13.

Anson, R. H., Mann, J. D., & Sherman, D. (1986). Niederhoffer's cynicism scale: Reliability and beyond. Journal of Criminal Justice, 14, 295-305.

Baltes, P. B. (1968). Longitudinal and cross-sectional sequences in the study of age and generation effects. Human Development, 11, 145-171.

Baltes, P. B., & Schaie, K. W. (1979). Epilogue: On life span developmental research paradigms: Retrospects and prospects. In P.B. Baltes & K.W. Schaie (Eds.), Life-span developmental psychology: Personality and socialization (pp. 365-395). New York: Academic Press.

Barling, J., Wade, B., & Fullagar, C. (1990). Predicting employee commitment to company and union: Divergent models. Journal of Occupational Psychology, 63, 49-61.

Bateman, T. S., & Strasser, S. (1984). A longitudinal analysis of the antecedents of organizational commitment. Academy of Management Journal, 27, 95-112.

Becker, H. S. (1960). Notes on the concept of commitment. The American Journal of Sociology, 66, 32-40.

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

Becker, T. E., & Billings, R. S. (1993). Profile of commitment: An empirical test. Journal of Organizational Behavior, 14, 177-190.

Becker, T. E., Randall, D. M., & Riegel, C. D. (1995). The multidimensional view of commitment and the theory of reasoned action: A comparative evaluation. Journal of Management, 21, 617-638.

Bennett, R. R. (1984). Becoming blue: A longitudinal study of police recruit occupational socialization. Journal of Police Science and Administration, 12, 47-58.

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

Brooke, P. P., Russell, D. W., & Price, J. L. (1988). Discriminant validation of measures of job satisfaction, job involvement and organizational commitment. Journal of Applied Psychology, 73, 139-145.

Browne, M. W., & Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. Multivariate Behavioral Research, 24, 445-455.

Bryant, F. B., & Yarnold, P. R. (1995). Principal-components analysis and exploratory and confirmatory factor analysis. In L. G. Grimm & P. R. Yarnold (Eds.), Reading and understanding multivariate statistics (pp. 99-136). Washington: American Psychological Association.

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

Burke, R. J. (1989). Examining the career plateau: Some preliminary findings. Canadian Police College Journal, 13, 77-86.

Byrne, B. M. (1989). A primer of LISREL: Basic applications and programming for confirmatory factor analytic models. New York: Springer-Verlag.

Carson, K. D., & Bedeian, A. G. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. Journal of Vocational Behavior, 44, 237-262.

Cohen, A. (1991). Career stage as a moderator of the relationships between organizational commitment and its outcomes: A meta-analysis. Journal of Occupational Psychology, 64, 253-268.

Cohen, A. (1992). Antecedents of organizational commitment across occupational groups: A meta-analysis. Journal of Organizational Psychology, 13, 539-558.

Cohen, A. (1993). Age and tenure in relation to organizational commitment: A meta-analysis. Basic and Applied Psychology, 14, 143-159.

Cohen, A. (1994). Rewards and organizational commitment across structural characteristics: A meta-analysis. Journal of Business and Psychology, 9, 137-157.

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

Cohen, A., & Gattiker, U. E. (1994). Rewards and organizational commitment across structural characteristics: A meta-analysis. Journal of Business and Psychology, 9, 137-157.

Cohen, J. (1969). Statistical power analysis for the behavioral sciences. New York: Academic Press.

Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). The experience of work: A compendium and review of 249 measures and their use. London: Academic Press.

Cook, T. D., & Campbell, D. T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Boston: Houghton Mifflin.

Cooke, D. K. (1994). Measuring career stage. Human Resource Management Review, 4, 383-398.

Crampton, S. M., & Wagner, J. A. (1994). Percept-percept inflation in micro-organizational research: An investigation of prevalence and effect. Journal of Applied Psychology, 79, 67-76.

Cross, D. (1973). The Worker Opinion Survey: A measure of shop-floor satisfaction. Occupational Psychology, 47, 193-208.

Curry, J. P., Wakefield, D. S., Price, J. L., & Mueller, C. W. (1986). On the causal ordering of job satisfaction and organizational commitment. Academy of Management Journal, 29, 847-858.

Dean, R. A., Ferris, K. R., & Konstans, C. (1988). Occupational reality shock and organizational commitment: Evidence from the accounting profession. Accounting, Organizations and Society, 13, 235-250.

Drago, R., Kriegler, R., Tulsi, N., & Wooden, M. (1988). The BCA/NILS Industrial Relations Survey: An overview of the employee study (Working Paper Series No. 100). Adelaide, South Australia: National Institute of Labour Studies.

Dubinsky, A. J., & Mattson, B. E. (1979). Consequences of role conflict and ambiguity experienced by retail salespeople. Journal of Retailing, 55, 70-86.

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

Dunphy, D., & Stace, D. (1993). The strategic management of corporate change. Human Relations, 46, 905-920.

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

Ellis, R. T. (1991). Perceptions, attitudes and beliefs of police recruits. Canadian Police College Journal, 15, 95-117.

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.

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

Franken, R. E. (1988). Human motivation. (2nd ed.). Pacific Grove, CA: Brooks/Cole.

Fuller, C. (1974). Effects of anonymity on return rate and response bias in a mail survey. Journal of Applied Psychology, 59, 292-296.

Furnham, A., & Drakeley, R. J. (1993). Work locus of control and perceived organizational climate. European Work and Organizational Psychologist, 3, 1-9.

Gellatly, I. R. (1995). Individual and group determinants of employee absenteeism: Test of a causal model. Journal of Organizational Behavior, 16, 469-485.

George, J. M., & Brief, A. P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship. Psychological Bulletin, 112, 310-329.

Glisson, C., & Durick, M. (1988). Predictors of job satisfaction and organizational commitment in human service organizations. Administrative Science Quarterly, 33, 61-81.

Goldstein, H. (1990). Problem-oriented policing. New York: McGraw Hill.

Gregersen, H. B. (1993). Multiple commitments at work and extra-role behavior during three stages of organizational tenure. Journal of Business Research, 26, 31-47.

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

Hackman, J. R., & Oldham, G. R. (1975). Work redesign. Reading, MA: Addison-Wesley.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). Multivariate data analysis with readings (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Harris, S. G. (1994). Organizational culture and individual sensemaking: A schema-based perspective. Organization Science, 5, 309-321.

Harris, S. G., Hirschfield, R. R., Feild, H. S., & Mossholder, K. W. (1993). Psychological attachment: Relationships with job characteristics, attitudes and preferences for newcomer development. Group and Organization Management, 18, 459-481.

Hart, P. M., Wearing, A. J., & Headey, B. (1994). Perceived quality of life, personality, and work experiences: Construct validation of the police daily hassles and uplifts scales. Criminal Justice and Behavior, 21, 283-311.

Havighurst, R. J. (1964). Youth in exploration and man emergent. In H. Barrow (Ed.), Man in a world at work. Boston: Houghton Mifflin.

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

Hofstede, G. (1983). The cultural relativity of organizational practices and theories. Journal of International Business Studies, 14, 75-89.

Holsti, O. R. (1969). Content analysis for the social sciences and humanities. Reading, MA: Addison-Wesley.

Hom, P. W., Katerberg, R., & Hulin, C. L. (1979). Comparative examination of three approaches to the prediction of turnover. Journal of Applied Psychology, 64, 280-290.

House, R. J., & Rizzo, J. R. (1971). Toward the measurement of organizational practices: Scale development and validation. Journal of Applied Psychology, 56, 388-396.

Hrebiniak, L. G., & Alutto, J. A. (1972). Personal and role-related factors in the development of organizational commitment. Administrative Science Quarterly, 17, 555-573.

Hunt, R. G., & McCadden, K. S. (1985). A survey of work attitudes of police officers: Commitment and satisfaction. Police Studies, 8, 17-25.

Iaffaldano, M. T., & Muchinsky, P. M. (1985). Job satisfaction and job performance: A meta-analysis. Psychological Bulletin, 97, 251-273.

Irving, P. G., & Meyer, J. P. (1994). Reexamination of the met-expectation hypothesis: A longitudinal analysis. Journal of Applied Psychology, 79, 937-949.

James, L. R., Muliak, S. A., & Brett, J. M. (1982). Causal analysis: Assumptions, models and data. Beverly Hills, CA: Sage.

James, L. R., & McIntyre, M. D. (1996). Perceptions of organizational climate. In K. R. Murphy (Ed.), Individual differences and behavior in organizations (Series: Frontiers of industrial and organizational psychology) (pp. 416-450). San Francisco: Jossey-Bass.

James, S., & Hendry, B. (1991). The money or the job: The decision to leave policing. Australia and New Zealand Journal of Criminology, 24(3), 169-189.

Jermier, J. M., & Berkes, L. J. (1979). Leader behavior in a police command bureaucracy: A closer look at the quasi-miltary model. Administrative Science Quarterly, 24, 1-23.

Johns, G. (1991). Substantive and methodological constraints on behavior and attitudes in organizational research. Organizational Behavior and Human Decision Processes, 49, 80-104.

Johnston, G. P., & Snizek, W. E. (1991). Combining head and heart in complex organizations: A test of Etzioni's dual compliance structure hypothesis. Human Relations, 44, 1255-1272.

Jöreskog, K. G. (1979). Statistical estimation of structural models in longitudinal-developmental investigations. In J. R. Nesselroade & P. B. Baltes (Eds.), Longitudinal research in the study of behavior and development (pp. 303-351). New York: Academic Press.

Jöreskog, K. G., & Sörbom, D (1986). Prelis: A program for multivariate data screening and data summarization - A preprocessor for LISREL (2nd ed.). Unversity of Uppsala, Uppsala, Sweden.

Jöreskog, K. G., & Sörbom, D. (1989). Lisrel 7: A guide to the program and applications (2nd ed.). Chicago, IL: SPSS.

Jöreskog, K. G., & Sörbom, D (1993). Lisrel 8: Structural equation modelling with the SIMPLIS command language. Hillsdale, NJ: Lawrence Erlbaum.

Katz, D., & Kahn, R. L. (1978). The social psychology of organization (2nd ed.). New York: Wiley.

Katzell, R. A., & Austin, J. T. (1992). From then to now: The development of industrial-organizational psychology in the United States. Journal of Applied Psychology, 77, 803-835.

Kessen, W. (1960). Research design in the study of developmental problems. In, P. Mussen (Ed.), Handbook of research methods in child development (pp. 36-70). New York: John Wiley.

Kidron, A. (1976). Individual differences, job characteristics and commitment to the organization. Unpublished doctoral dissertation, The Ohio State University, OH.

Kidron, A. (1978). Work values and organizational commitment. Academy of Management Journal, 21, 239-247.

Kinicki, A. J., & Vecchio, R. P. (1994). Influences on the quality of supervisor-subordinate relations: The role of time-pressure, organizational commitment and locus of control. Journal of Organizational Behavior, 15, 75-82.

Kirchmeyer, C. (1995). Demographic similarity to the work group: A longitudinal study of managers at the early career stage. Journal of Organizational Behavior, 16, 67-83.

Knoop, R. (1994). Organizational commitment and individual values. Perceptual and Motor Skills, 78, 200-202.

Koslowsky, M. (1990). Staff/line distinctions in job and organizational commitment. Journal of Occupational Psychology, 63, 167-173.

Kozlowski, S. W. J., & Doherty, M. L. (1989). Integration of climate and leadership: Examination of a neglected issue. Journal of Applied Psychology, 74, 546-553.

Langworthy, R. H. (1987). Comment: Have we measured the concept(s) of police cynicism using Niederhoffer's cynicism index? Justice Quarterly, 4, 277-280.

Lee, T. W. (1988). How job dissatisfaction leads to employee turnover. Journal of Business and Psychology, 2, 263-271.

Lee, T. W., Ashford, S. J., Walsh, J. P., & Mowday, R. T. (1992). Commitment propensity, organizational commitment and voluntary turnover: A longitudinal study of organizational entry processes. Journal of Management, 18, 15-32.

Lee, T. W., & Johnson, D. R. (1991). The effects of work schedule and employment status on the organizational commitment and job satisfaction of full versus part time employees. Journal of Vocational Behavior, 38, 208-224.

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. Journal of Organizational Behavior, 9, 297-308.

Levinson, D. J. (1978). The seasons of a man's life. New York: Knopf.

Levinson, D. J. (1986). A conception of adult development. American Psychologist, 41, 3-13.

Lewin, K. (1951). Field theory in the social sciences. New York: Harper.

Locke, E. A. (1976). Nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology. Chicago: Rand McNally.

Major, D. A., Kozlowski, S. W. J., Chao, G. T., & Gardner, P. D. (1995). A longitudinal investigation of newcomer expectation, early socialization outcomes, and the moderating effects of role development factors. Journal of Applied Psychology, 80, 418-431.

Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. Organization Science, 4, 209-225.

Marsden, P. V., Kalleberg, A. L., & Cook, C. R. (1993). Gender differences in organizational commitment: Influences of work positions and family roles. Work and Occupations, 20, 368-390.

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

Martelli, T. A., Waters, L. K., & Martelli, J. (1989). The police stress survey: Reliability and relation to job satisfaction and organizational commitment. Psychological Reports, 64, 267-273.

Martocchio, J. J. (1994). The effects of absence culture on individual absence. Human Relations, 47, 243-262.

Mathieu, J. E. (1988). A causal model of organizational commitment in a military training environment. Journal of Vocational Behavior, 32, 321-335.

Mathieu, J. E. (1991). A cross-level nonrecursive model of the antecedents of organizational commitment and satisfaction. Journal of Applied Psychology, 76, 607-618.

Mathieu, J. E., & Farr, J. L. (1991). Further evidence for the discriminant validity of measures of organizational commitment, job involvement and job satisfaction. Journal of Applied Psychology, 76, 127-133.

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.

McConkey, K. M., Huon, G. F., & Frank, M. G. (1995). Practical ethics in the police service: Ethics and policing (Study 3) (Report No. 125.3). Adelaide, Australia: National Police Research Unit.

McFarlane Shore, L., & Martin, H. J. (1989). Job satisfaction and organizational commitment in relation to work performance and turnover intentions. Human Relations, 42, 625-638.

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

McNeilly, K. M., & Russ, F. A. (1992). The moderating effect of sales force performance on relationships involving antecedents of turnover. Journal of Personal Selling and Sales Management, 12, 9-20.

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. (1988). Links between work experiences and organizational commitment during the first year of employment: A longitudinal analysis. Journal of Occupational Psychology, 61, 195-209.

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., & 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: An extension and test of the 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., & Gardner, R. C. (1994, March). Assessment of change in organizational commitment during the first year of employment: An application of confirmatory factor analysis. Paper presented at the Academy of Management, Research Methods Division, Conference on Causal Modelling, West Lafayette, IN.

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, 152-156.

Middleton, A. (1992). Police perceptions and attitudes in Victoria (1992) (Internal Report). Melbourne, Australia: Victoria Police Department.

Miles, M. B., & Huberman, A. M. (1984). Qualitative data analysis: A sourcebook of new methods. Newbury Park, CA: Sage.

Miller, K. I. (1988). Cultural and role-based predictors of organizational participation and allocation. Communication Research, 15, 699-725.

Mirels, H. L., & Garrett, J. R. (1971). The protestant ethic as a personality variable. Journal of Consulting and Clinical Pschology, 36, 40-44.

Morrow, P. C., & Goetz, J. F. (1988). Professionalism as a form of work commitment. Journal of Vocational Behavior, 32, 92-111.

Morrow, P. C., & McElroy, J. C. (1987). Work commitment and job satisfaction over three career stages. Journal of Vocational Behavior, 30, 330-346.

Morrow, P. C., & McElroy, J. C. (1993). Introduction: Understanding and managing loyalty in a multi-commitment world. Journal of Business Research, 26, 1-2.

Mowday, R. T., Porter, L. W., & Dubin, R. (1974). Unit performance, situational factors, and employee attitudes in spatially separated work units. Organizational Behavior and Human Performance, 12, 231-248.

Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). Employee-organization linkages: The psychology of commitment, absenteeism, and turnover. New York: Academic Press.

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

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

Mueller, R. O. (1996). Basic principles of structural equation modelling. New York: Springer-Verlag.

Near, J. P. (1989). Organizational commitment among Japanese and United States workers. Organization Studies, 10, 281-300.

Niederhoffer, A. (1967). Behind the shield: The police in urban society. Garden City, New York: Doubleday.

Niehoff, B. P., Enz, C. A., & Grover, R. A. (1990). The impact of top management actions on employee attitudes and perceptions. Group and Organization Studies, 15, 337-352.

O'Connell, B. J., Holzman, H., & Armandi, B. R. (1986). Police cynicism and the modes of adaptation. Journal of Police Science and Administration, 14, 307-313.

O'Driscoll, M. P., & Beehr, T. A. (1994). Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes for subordinates. Journal of Organizational Behavior, 15, 141-155.

O'Reilly, C., & 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.

O'Reilly, C., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. Academy of Management Journal, 34, 487-516.

Orpen, C. (1993). The effect of organizational commitment on the relationship between procedural and distributive justice. The Journal of Social Psychology, 134, 135-136.

Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organizational level analysis. Journal of Applied Psychology, 77, 963-974.

Ostroff, C. (1993). The effects of climate and personal influences on individual behavior and attitudes in organizations. Organizational Behavior and Human Decision Processes, 56, 56-90.

Ostroff, C., & Kozlowski, S. W. J. (1992). Organizational socialization as a learning process: The role of information acquisition. Personnel Psychology, 45, 849-874.

Peterson, C. (1989). Looking forward through the lifespan: Developmental psychology. (2nd ed.). Englewood, NJ: Prentice-Hall.

Pollitz Worden, A. (1993). The attitudes of women and men in policing: Testing conventional and contemporary wisdom. Criminology, 31, 203-241.

Popper, M., & Lipshitz, R. (1992). "Ask not what our country can do for you": The normative basis of organizational commitment. Journal of Vocational Behavior, 41, 1-19.

Porter, L. W., & Smith, F. J. (1970). The etiology of organizational commitment. Unpublished manuscript, University of California at Irvine, CA.

Porter, L. W., & Steers, R. M. (1973). Organizational, work and personal factors in employee turnover and satisfaction. Psychological Bulletin, 80, 151-176.

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, 5, 603-609.

Randall, D. M. (1993). Cross-cultural research on organizational commitment: A review and application of Hofstede's value system. Journal of Business Research, 26, 91-110.

Randall, D. M., Fedor, D. B., & Longenecker, C. O. (1990). The behavorial expression of organizational commitment. Journal of Vocational Behavior, 36, 210-224.

Regoli, R. M. (1976). An empirical assessment of Niederhoffer's Police Cynicism Scale. Journal of Criminal Justice, 4, 231-241.

Regoli, B., Crank, J. P., & Rivera, G. F. (1990). The construction and implementation of an alternative measure of police cynicism. Criminal Justice and Behavior, 17, 395-409.

Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. Academy of Management Review, 10, 465-476.

Reichers, A. E. (1986). Conflict and organizational commitment. Journal of Applied Psychology, 71, 508-514.

Rhodes, S. R. (1983). Age-related differences in work attitudes and behavior: A review and conceptual analysis. Psychological Bulletin, 93, 328-367.

Riggs, M. T., Warka, J., Babasa, B., Betancourt, R., & Hooker, S. (1994). Development and validation of self-efficacy and outcome expectancy scales for job-related applications. Educational and Psychological Measurement, 54, 793-802.

Rizzo, J., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. Administrative Science Quarterly, 15, 150-163.

Robinson, S. L. (1994). Explaining retreat, voice, silence and destruction: The impact of work context on employees' responses to dissatisfaction. Paper presented at the Organizational Behavior Division of the Annual Meeting of the Academy of Management, Dallas, TX.

Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. Academy of Management Journal, 37, 136-152.

Rosenthal, R. (1979). The file drawer problem and the tolerance for null results. Psychological Bulletin, 86, 638-641.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Rosin, H. M., & Korabik, K. (1991). Workplace variables, affective responses, and intention to leave among women managers. Journal of Occupational Psychology, 64, 317-330.

Ruess-Ianni, E., & Ianni, F. A. J. (1983). Street cops and management cops: The two cultures of policing. In M. Punch (Ed.), Control in the police organization (pp.251-274). Cambridge, MA: MIT.

Rusbult, C. E., & Farrell, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment and turnover of variations in rewards, costs, alternatives and investments. Journal of Applied Psychology, 68, 429-438.

Saks, A. M. (1994). A psychological investigation for the effects of recruitment source and information on job survival. Journal of Organizational Behavior, 15, 225-244.

Salancik, G. R. (1977). Commitment and the control of organizational behavior and belief. In B. M. Staw & G. R. Salancik (Eds.), New directions in organizational behavior (pp. 1-54). Chicago: St Clair Press.

Savery, L. K., Soutar, G. N., & Weaver, J. R. (1991). Organizational commitment and the West Australian police force. The Police Journal, 64, 168-177.

Schaie, K. W. (1965). A general model for the study of developmental problems. Psychological Bulletin, 64, 92-107.

Schaie, K. W. (1967). Age changes and age differences. The Gerontologist, 7, 128-132.

Schaie, K. W., & Baltes, P. B. (1975). On sequential strategies in developmental research: Description or explanation. Human Development, 18, 384-390.

Schaie, K. W., & Strother, C. R. (1968). A cross-sequential study of age changes in cognitive behavior. Psychological Bulletin, 70, 671-680.

Schwarzwald, J., Koslowsky, M., & Shalit, B. (1992). A field sudy of employee's attitudes and behaviors after promotion decisions. Journal of Applied Psychology, 77, 511-514.

Shaub, M. K. (1991). A psychometric comparison of two organizational commitment scales. Psychological Reports, 68, 419-426.

Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to the organization. Administrative Science Quarterly, 16, 143-150.

Sheridan, J. E. (1992). Organizational culture and employee retention. Academy of Management Journal, 35, 1036-1056.

Shore, T. H., Thornton, G. C., & McFarlane Shore, L. (1990). Distinctiveness of three work attitudes: Job involvement, organizational commitment, and career salience. Psychological Reports, 67, 851-858.

Sims, H. P. J., & Szilagyi, A. D. (1975). Leader reward behavior and satisfaction and performance. Organizational Behavior and Human Performance, 14, 426-438.

Sims, R. L., & Kroeck, K. G. (1994). The influence of ethical fit on employee satisfaction, commitment and turnover. Journal of Business Ethics, 13, 939-947.

Singer, M. S. H., Singer, A. E., & Burns, D. (1984). Police cynicism in New Zealand: A comparison between police officers and recruits. Police Studies, 7, 77-83.

Smith, R. G., & Westen, R. J. (1951). Studies of morale methodology and criteria (Research Bulletin 51-29). San Antonio, CA: USAF Air Training Command, Human Resources Research Center.

Somers, M. J., & Casal, J. C. (1994). Organizational commitment and whistle-blowing: A test of the reformer and the organization man hypotheses. Group and Organization Management, 19, 270-284.

Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. Adminstrative Science Quarterly, 22, 46-56.

Stradling, S. G., Crowe, G., & Tuohy, A. P. (1993). Changes in self-concept during occupational socialization of new recruits to the police. Journal of Community and Applied Social Psychology, 3, 131-147.

Super, D. E. (1957). The psychology of careers. New York: Harper.

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

Thompson, K. R., & Terpening, W. D. (1983). Job-type variations and antecedents to intention to leave: A content approach to turnover. Human Relations, 36, 655-682.

Treadwell, D. F., & Harrison, T. M. (1994). Conceptualizing and assessing organizational image: Model image, commitment, and communication. Communication Monographs, 61, 63-84.

Turban, D. B., & Keon, T. L. (1993). Organizational attractiveness: An interactionist perspective. Journal of Applied Psychology, 78, 184-193.

Turner, J. S., & Helms, D. B. (1987). Lifespan development (3rd ed.). Orlando, FL: Holt, Rinehart & Winston.

Vandenberg, R. J., & Scarpello, V. (1994). A longitudinal assessment of the determinant relationship between employee commitments to the occupation and the organization. Journal of Organizational Behavior, 15, 535-547.

Van Maanen, J. (1975). Police socialization: A longitudinal examination of job attitudes in an urban police department. Administrative Science Quarterly, 20, 207-228.

Van Maanen, J., & Schein, E. H. (1979). Toward a theory of organizational socialization. Research in Organizational Behavior, 1, 209-264.

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

Vandewalle, D., Van Dyne, L., & Kostova, T. (1995). Psychological ownership: An empirical examination of its consequence. Group and Organizational Management, 20, 210-226.

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

Viswesvaran, C., Barrick, M. R., & Ones, D. S. (1993). How definitive are conclusions based on survey data: Estimating robustness to nonresponse. Personnel Psychology, 46, 551-567.

Viteles, M. S. (1953). Motivation and morale in industry. New York: Oxford Press.

Wallace, J. E. (1995). Corporatist control and organizational commitment among professionals: The case of lawyers working in law firms. Social Forces, 73, 811-839.

Wanous, J. P. (1976). Organizational entry: From naive expectations to realistic beliefs. Journal of Applied Psychology, 61, 22-29.

Wanous, J. P., Poland, T. D., Premack, S. L., & Davis, K. S. (1992). The effect of met-expectations on newcomer attitudes and behaviors: A review and meta-analysis. Journal of Applied Psychology, 77, 288-297.

Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1965). Unobtrusive measures. Chicago: Rand McNally.

Whitely, W. T., & Coetsier, P. (1993). The relationship of career mentoring to early career outcomes. Organization Studies, 14, 419-441.

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

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

Wilson, B., & Spence Laschinger, H. K. (1994). Staff nurse perception of job empowerment and organizational commitment. Journal of Nursing Administration, 24, 39-47.

Wilson, C. (1991). The influence of police specialisation on job satisfaction. A comparison of general duties officers and detectives (Report No. 109). Adelaide, South Australia: National Police Research Unit.

Witt, L. A. (1993). Reactions to work assignment as predictors of organizational commitment: The moderating effect of occupational identification. Journal of Business Research, 26, 17-30.

Wolman, B. B. (1973). Dictionary of behavioral science. New York: Van Nostrand Reinhold.

Wright, P. L. (1990). Teller job satisfaction and organizational commitment as they relate to career orientations. Human Relations, 43, 369-381.

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

Zuckerman, D. M. (1985). Confidence and aspirations: Self-esteem and self-concepts as predictors of students' life goals. Journal of Personality, 53, 543-560.