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EMPLOYEE HOMOGENEITY AND PERCEPTIONS OF ORGANISATIONAL FIT

A thesis presented in partial fulfilment of the requirements for the degree of Master of Arts in Psychology at Massey University.

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ABSTRACT

Popular management literature suggests that a strong culture is important for the success of an organisation. A logical outcome of this belief is that it is important that employees should 'fit' - that is, employees' values should be congruent with those of the organisation.

Schneider's (1987) Attraction-Selection-Attrition (ASA) theory argues that, over time, forces operate to ensure that an increasingly more homogeneous group of employees make up an organisation. In a test of ASA theory, the present study used the Work Aspect Preference Scale (Pryor, 1983) to assess the homogeneity of the managerial staff of a manufacturing organisation (N = 35) and a comparison group of 42 executive MBA students.

As an extension of the attrition component of the model, it was hypothesised that those employees who remain in the organisation would be perceived as having better organisational fit.

Kelly's (1955) repertory grid technique was used to identify those characteristics the organisation believed essential for success. These constructs were used to develop an Organisational Fit scale which was then applied to a group of 34 managers. Some marginal support was found for Schneider's ASA theory, and analysis of differences between the two groups did reveal significant differences on three work aspects. The hypothesis that employees of longer tenure would rate more highly on the Organisational Fit scale was not supported.

Implications for the homogeneity hypothesis are discussed, and suggestions are made for further research on this concept, and for further study of organisational fit.

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CHAPTER ONE

INTRODUCTION

The impetus for the present study came from an inquiry by an organisation seeking advice on how to facilitate the identification of potential employees who possess specific characteristics compatible with those of the organisation, that is, people who "fit". It was this notion of fit that prompted the researcher to investigate how the organisation conceptualised fit, and to question whether the employees of this organisation were in fact different from others outside the organisation.

Schneider (1987) states that employees within an organisation become more like each other over time. Organisations tend to attract and select certain types, and those who qualify tend to be similar. This similarity is enhanced as any selected employees who fail to fit will leave in time, resulting in an homogeneity amongst those remaining in the organisation. Schneider (1987) presents his theory as the attraction-selection-attrition (ASA) model.

This study addresses the ASA model, and tests the homogeneity hypothesis by comparing an organisational group and a comparison group of individuals who could be considered as potential applicants to this organisation. It is a logical extension of the homogeneity hypothesis to postulate that those employees who have not left the organisation (voluntarily or involuntarily) will be considered by the organisation to fit in. Organisational fit can be described as the congruence between the individual and the organisation.

When employees share basic personal values with the organisation, the resulting congruence is believed to result in certain positive outcomes, such as job satisfaction, reduced absenteeism and turnover, and increased motivation. Schein (1988) describes the effects resulting from this congruence as both a means of external adaption and of internal integration. Sharing values congruent with the organisation is believed to incline employees to engage in behaviours which will serve the organisation in its adaption to the external environment. The role of shared values in internal integrative features of work interactions and promote coordination, job satisfaction, and organisational commitment (Schein, 1988).

In tandem with the homogeneity hypothesis, the current study considers the question of the congruence between the organisation and the individual, or organisational fit. This is achieved by defining those employee characteristics that are valued by the organisation, and then assessing the employees on these dimensions. It follows logically that an employee displaying these characteristics will be deemed to 'fit into' the organisation.

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Chapter 2 presents the theoretical framework of the interactionist approach to the concept of organisational fit, and introduces Schneider's (1987) theory. A review of the empirical research in this field to date is presented in Chapter 3.

Chapter 4 describes the Work Aspect Preference Scale (WAPS) which was used to assess the homogeneity of the organisational group and to examine differences between the organisational group and a comparison group.

A preliminary study was carried out to elicit the particular organisational information required for the development of the Organisational Fit Scale. Chapter 5 describes this preliminary study after first outlining Kelly's (1955) Personal Construct Theory and Repertory Grid Technique which form the basis of the method used.

The remaining chapters present the aims, procedure, results and discussion of the main study which was conducted to test the research hypotheses.

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CHAPTER TWO

THEORETICAL FRAMEWORK

2.1 THE INTERACTIONIST APPROACH

The interactionist approach to the study of person-environment fit has grown out of the long standing debate between those supporting the individual approach (e.g. Allport, 1966; Staw & Ross, 1985; Weiss & Adler, 1984) and those arguing the situational perspective (e.g. Mischel, 1968; Salancik & Pfeffer, 1978) on behaviour¹. While the individual approach argues that stable personality traits account for behaviour, and the situation approach argues that behaviour can be predicted by assessing the characteristics of the situation, the interactionist perspective holds that both personal traits and situational characteristics contribute to behaviour. Behaviour within the organisational environment is subject to discussion of the same issues.

Interactionist models are not new to the area of organisational behaviour and vocational research. The match between personality traits and vocations has been promulgated by Holland (1985). Other models seeking to explain aspects of organisational behaviour have been proposed for personality traits and job characteristics (Hackman and Oldham, 1980), and value

¹For a discussion of the personologist situationist debate see Schneider (1983).

attainment and job satisfaction (Dawis and Lofquist, 1984), and leaders and tasks (Fiedler, 1976). The common theme in these models is that of a match or congruence between constructs. Congruence can be considered as synonymous with fit, agreement, or matching, and refers to the relationship between conceptually different constructs which are typically considered as joint predictors of some (specific) outcome. In this study, the constructs of interest are the culture of the organisation (as identified by the behaviours that it values in its employees), and the values of the employees. In other words, the fit between the individual and the organisation.

2.2 ORGANISATIONAL FIT

Individual values have been identified as manifestations of an organisation's culture (Schein, 1988). This, coupled with an apparent link between a strong corporate culture and superior organizational performance as described by Peters and Waterman (1982) and Deal and Kennedy (1982), has lead to an upsurge of interest in, and research on, the topic of congruence as it relates to organisational fit. The notion is that if an individual can be matched with an organisation in terms of the organisation's culture, then there will be a positive effect on a range of variables such as performance, production, turnover, and general employee satisfaction.

Fit, however, is an elusive concept. Although knowledge, skills, and abilities (KSAs) are directly related to the performance of the job, organisations will generally go further than this match when talking about the "right type" of person - one who will "fit into" the organisation. It is at this point that descriptions of applicants become difficult to measure accurately. There is some evidence to support the contention that assessments of fit go beyond evaluation of KSAs, and into subjective assessment. Selection is usually made by interview (Robertson and Makin, 1986). Those involved in the interview procedure will typically resort to personality constructs such as "bright", "innovative", and "motivated" to describe the ideal candidate, but do not assess these constructs psychometrically, or regard them in the same light as do psychologists. Decisions on whether or not an individual possesses the appropriate blend of desirable traits is often made on the "gut" feelings of the interviewer most likes (Kinicki and Lockwood, 1985).

In investigating the role of personality in the recruiting process, Tom (1971) found further evidence to support the conclusion that subjective factors do play an important role. The similarity between the profiles for self description and descriptions of organisations that subjects would most prefer to work for was found to be significantly greater than the similarity between profiles for self description and description and descriptions of organisations that subjects least preferred. It has also been found that when general employability is controlled for, and all applicants are similarly qualified for the job,

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assessment of interpersonal skills, future goal orientation, and personal appearance have an influence on assessment of fit (Rynes & Gerhart, 1990).

Much has been written with regard to Holland's (1973) matching theory of vocational behaviour, and the fit between the individual and the occupation. Super (1953) also based his theory on the role personality plays in the vocational choice process, viewing it as a development and implementation of self concept. Super's (1953) theory can, by extension, be applied to choice of organisation as a means of implementing one's self concept. Tom (1971) found some support for this extension in his study of preferences in organisational choice.

There is, however, less research relating directly to the fit between the individual and the organisation. There are some problems associated with studies that attempt to assess this concept. First of all, one individual may differ from another in the way her or his traits, values, and attitudes relate to one another. Individual differences are therefore very relevant, and so a nomothetic approach must give way to idiographic methods. Secondly, there is the operational need to define characteristics of the person and of the organisation along commensurate dimensions so that they can be compared meaningfully.

A variety of approaches have been adopted in attempting to assess the organisation and those in or those applying to join the organisation along

commensurate dimensions. Tom (1971) used The Adjective Checklist to assess individual personality, and modified the instructions to make the adjectives applicable to organisations. He argues that the willingness of subjects to utilise the instrument to describe organisations is a sound basis for its use. Chatman (1989) counters this argument asserting that personality items can only be metaphorically applied to an organisation as the items were originally devised to assess personality. Chatman defined personorganisation fit as "the congruence between the norms and values of organizations and the values of persons" (1989, p. 339), and she used the Qsort technique to identify the value systems of the individual and the organisation. The Q-sort required job seekers or new organisational members to sort 54 items into 9 categories with a specific number of items in each category. This 'sort' was matched against an organisation's value system. This value system was established by having a broad representation of organisational members sort the same 54 value statements into categories characteristic or uncharacteristic of the organisation.

2.3 SCHNEIDER'S ATTRACTION-SELECTION-ATTRITION THEORY

Schneider (1987) has conceptualised the organisational level issue of personorganisation fit through his development of the Attraction-Selection-Attrition (ASA) framework. He argues that there are forces within an organisation which are instrumental in attracting certain applicants to apply to the

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organisation, in the selection of applicants, and in retaining certain employees (Schneider, 1987). This theory is similar to the earlier work of Vroom (1966) who hypothesised that individuals choose organisations that they feel will be instrumental in helping them obtain their valued outcomes. The valued outcomes may, in fact, be objective factors such as benefits, pay, or location, but the importance of these factors varies from person to person, and each individual will be influenced by the valence of certain factors in achieving their personal outcomes.

The ASA model (Schneider, 1987) holds that individuals are differentially attracted to certain situations as a function of the organisation and its outward appeal (Holland, 1985; Tom, 1971; Vroom, 1966). In the selection process, those who make the decisions choose people they believe are compatible with the setting. These are generally people like themselves (Kinicki and Lockwood, 1985). In the attrition phase, people will leave the organisation, either voluntarily or involuntarily, if they do not fit into the setting. The resulting organisation is made up of an homogeneous group, who will have similar attitudes, values, competencies, and behaviours. Schneider (1987) contends that organisational environment is a function of people and their behaviour, and this can be expressed in the formula E = f(P,B). Schneider further hypothesises that the organisation ensures its goals are met by selecting people with common personality attributes who can help meet those ends (Schneider, 1987).

The current study is designed to test Schneider's (1987) theory in relation to work aspect preferences. The homogeneity of an organisational group is assessed in relation to that of a comparable group outside the organisation. If the organisational group proves to be more homogenous than the comparison group, and those longer tenured employees of the organisation are different from the shorter term employees in the organisation, all three components of Schneider's (1987) attraction-selection-attrition model will be supported. The current study also hypothesises that longer tenured employees, who by definition have not been lost through attrition, will be perceived as fitting into the organisation better than the shorter tenured employees of the organisation.

CHAPTER THREE

LITERATURE REVIEW

There have been several studies addressing Schneider's (1987) theory, either directly or indirectly. A review of the literature reveals a variety of substantive and methodological approaches. Only those that have some relevance to the current study will be reviewed.

As has been stated, there are problems associated with the need to define constructs being analyses on commensurate dimensions. In studies to date, conceptualisations of the components of congruence have included values, desires, preferences, expectations, perceptions of job attributes, and perceptions of self and others (Chatman, 1989; Edwards & Cooper, 1990; Greenhaus, Seidel, & Marinis 1983; Meglino, Ravlin & Adkins, 1989; Rice, McFarlin, & Bennett, 1989; Weiss, 1978).

Values have been widely used as a method of conceptualising congruence and relating the value match to various outcomes (Betz & Judkins, 1975; Chatman, 1989; Meglino et al., 1989; Meglino, Ravlin, & Adkins, 1991; Posner, Kouzes, & Schmidt, 1985; Weiss, 1978).

Weiss (1978) used Social Learning Theory (Bandura, 1971) to examine the process of change in values, proposing that values can develop through imitative processes. In his study of employees and their supervisors he

found that there was a positive correlation between supervisor consideration and value similarity. No significant correlation between tenure and value similarity was found.

Meglino et al. (1989) examined the relationship between value congruence and individual outcomes across three levels of an organisation. They found that employees whose values match those of their supervisors are more satisfied and committed, and that the values of workers and their supervisors do not change appreciably over time. Further research on this relationship suggests that in organisations where employees share similar values (organisations with strong cultures) liking for the leader will increase if accounts of their actions reflect the dominant values of the institution (Meglino et al., 1991). In their nationwide survey of American managers, Posner et al. (1985) found that the strength of congruence between personal and organisational values affects the quality of management commitment; those with high congruence have greater sense of success, a less cynical assessment of values and ethics of colleagues, and greater regard for organisational outcomes. Although this study had a very large number of respondents (N = 1498), the limitations for generalising survey results apply. As 6,000 questionnaires were sent out, the response rate of just less than 25 percent is low. Posner et al. (1985) base their findings on only two questions from the survey: one asking the extent to which the values of the organisation were compatible with personal values, and the other asking the extent to which managers felt they compromised their personal principles in

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conforming to organisational expectations. Responses to these two questions were used to group respondents into low, moderate, or high, shared value groups, and their responses to the other items on the questionnaire were analyses across the groups. The use of only two questions as a basis for the study does raise some questions about the reliability of the responses, and by extension, the validity of the results.

In contrast to these findings supporting the growing congruence of values over time, Betz and Judkins (1975) found that voluntary organisations attracted individuals whose attitudes were already formed before membership. Belonging to the organisation provided continuing support for existing attitudes rather than a change in attitudes through membership. This provides some support for the attraction component of Schneider's (1987) ASA model, however the very nature of voluntary organisations differentiates them from organisations where people are in paid employment. Deiner, Larsen, and Emmons (1984) and Tom (1971) also offer some support for the choice of situation hypothesis, finding that people frequently choose to be in the kinds of situations that most fit their personalities.

In a direct test of Schneider's ASA theory, Jordan, Herriot, and Chalmers (1991) sampled 344 managers from four organisations. They predicted that members of different organisations would differ in personality, that members of different occupations within organisations would differ in aptitude but not in personality, and that more senior managers would be closer to the

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organisational personality profile. The findings corroborate the attraction and selection elements of Schneider's (1987) ASA theory, in that there were clear differences in personality across organisations. The attrition element was not well supported, as the results showed that more senior managers appeared no different from others within their respective organisations. A weakness of this study, however, is that it used the 16PF as a measure. Reliabilities for any single form of the 16PF are low (Anastasi, 1988). Anastasi (1988) also notes weakness in the factorial homogeneity of items within the scales, as well as the factorial independence of scales. As Jordan et al. (1991) report their results in terms of differences in scores on subscales, their results should be regarded conservatively. The design also shows some imbalance, in that while three groups of subjects have fairly equal numbers (N = 56, 56, and 65), the fourth group has approximately three times the subjects (N = 167).

In specifically addressing the homogeneity hypothesis that people who remain in organisations are more homogenous than an applicant pool in general, Bretz, Ash, and Dreher, (1989) found some small support for Schneider's hypothesis. Using the Jackson Personality Research Form, the study evaluated subjects on 14 needs. To test for homogeneity, the hypothesis stated that within-group differences on individual characteristics would be smaller than differences observed across the entire sample. In the results, tests for homogeneity of variance revealed marginal preliminary support for the homogeneity hypothesis, in that there was a marginally significant (P < .06) difference between the groups on the characteristic nAch (need for achievement). In terms of the instrument used, the Bretz et al. (1989) study is stronger than that of Jordan et al (1991). Anastasi comments that the Jackson Personality Research Form is an "excellent research instrument" (1988, p. 548).

To date, then, there is some limited support for Schneider's (1987) homogeneity hypothesis, with the studies of Bretz et al. (1989) and Jordan et al. (1991) finding marginally significant support for the attraction-selection components of the ASA model, but no support for the attrition component. Meglino et al. (1989), while not directly testing the homogeneity hypothesis, found a similarity in values between supervisors and employees. The attraction element of the model receives further support from the findings of Tom (1971), Deiner et al. (1984), and Betz and Judkins (1975) in that individuals tend to select the environment that appears to best suit their personalities.

The current study is similar to that of Bretz et al. (1989) in that it tests Schneider's (1987) homogeneity hypothesis. In this study however, a comparison group of applicants was not available and a group of potential applicants is used. The homogeneity of 35 managers in a manufacturing company is compared with that of 42 executive Masters of Business Administration (MBA) students. It is reasoned that the executive MBAs have the qualifications and work experience that would make them suitable as applicants for positions within the organisation.

It is hypothesised that the organisational group will be more homogeneous than the group of potential applicants. If the results support those of Bretz et al. (1989) there will be further support for Schneider's (1987) homogeneity hypothesis.

The congruence between the organisation and the individual is also investigated in the current study. Meglino et al. (1989) found that employees' values can be congruent with each other without being congruent with those of the organisation, however strength of organisational commitment has been found to vary according to the level of congruence between personal and organisational values (Posner et al., 1985).

The present study is designed to address both the need for an idiographic approach to assessing values, and the nomothetic requirement for the comparison of the organisation and the individual. In making assessments of fit, the organisation will have standards against which individuals are measured. The current study identifies the dimensions of work behaviour that the organisation values, then assesses how well employees fit in along these dimensions. This is accomplished by firstly identifying those employee characteristics that the organisation considers important. Employees who subsequently rate highly on these characteristics must, by definition, fit into the organisation. The current study assesses this fit by developing an organisational fit scale tailored specifically for the organisation in question and then rating employees on this scale. It is hypothesised that those employees who remain in the organisation will be rated higher on overall fit than those who have been with the organisation for shorter periods of time. The rationale underlying this is that through attrition, those who fail to fit in will leave the organisation, voluntarily or otherwise, and the group that remains will embody more closely the characteristics considered important by the organisation (Schneider, 1987).

CHAPTER FOUR

THE WORK ASPECT PREFERENCE SCALE

4.1

The Work Aspect Preference Scale (WAPS) is a psychological measure constructed to assess the qualities of work that individuals consider important to them. A copy of the scale is included in Appendix A.

The perceived nature of work, and the various rewards that individuals seek from their employment are important dimensions of work motivation. Super (1970) developed the **Work Values Inventory** as a means of assessing the goals that motivate people to work. In examining work values, Pryor (1979) found that there were conceptual inadequacies associated with the term 'work value'. He argued that the term 'work value' suggested that "evaluative statements (moral imperatives) are being considered rather than affective (preference) statements" (Pryor, 1979, p.254). He proposed that the concept be replaced with the more accurate 'work aspect preference', which he defined as "a statement of the relation between a person (the subject of the relation) and a particular quality of work (the object of the relation). The nature of the relation between these two is that of a greater or lesser liking when the person has the opportunity to make a choice" (Pryor, 1979, p.254). Pryor states that it is for "conceptual reasons" (1990, p.19) that he prefers the term work aspects, and notes that the construct has been similarly defined as 'work values', 'job facets', 'work satisfaction', 'vocational needs', and 'employment incentives'.

4.2 DESCRIPTION OF THE SCALE

The WAPS is a 52 item questionnaire on which the subject expresses his or her preference for various aspects of work. Scores are obtained on 13 subscales (four items to each subscale) as described in table 1. Responses are made along a five point scale, where 1 stands for totally unimportant, 2 stands for little importance, 3 stands for moderately important, 4 stands for quite important, and 5 stands for extremely important.

For example, the subject would respond to the statement

'work in which you are certain of keeping your job' with the number which best describes how important that aspect of work is to him or her. This item contributes to the scale assessing the importance of security. Examples of items and the subscales to which they contribute include: Work in which you......

improve the skills you have	(self development)
help build a better society	(altruism)
are paid a high salary	(money)
work hard physically	(physical activity)

Table 1: List of subscales making up the WAPS

IND	Independence	A concern for being free from constraints imposed in the work environment
COW	Co-Workers	A concern for friendship and understanding from those with whom one works
SD	Self Development	A concern for developing and using one's skills and abilities
CRE	Creativity	A concern for developing something original through one's work
MON	Money	A concern for obtaining large financial rewards from one's work
LS	Life Style	A concern for the effect that employment may have on where and how one lives
PRE	Prestige	A concern for recognition and status in the eyes of others
ALT	Altruism	A concern for assisting others
SEC	Security	A concern for being able to maintain one's job
MA	Management	A concern for organising the work of others
DET	Detachment	A concern for being able to separate work and its influence from the other parts of one's life
PA	Physical Activity	A concern for being physically active in one's work
SUR	Surroundings	A concern for the kind of physical environment in which one works

4.3 ADMINISTRATION

The general directions for administration of the WAPS (Pryor, 1983) state that it is suitable for administration to groups or individuals. Full instructions are given for personal administration, but it is not designed to be self administered as in this research.

The researcher justifies the procedure followed in this study as the results are for research, and not for a personal assessment for each individual. As stated in the manual (Pryor, 1983), the written instructions are easy to understand. All respondents in this study were tertiary enroled, and/or working in managerial positions, and so were expected to have little problem in following the written instructions.

4.4 SCORING

The completed questionnaire gives the subject a score on each of the 13 subscales. Each subscale score is an arithmetic sum of the subject's responses to four items. Therefore, the highest possible score on each subscale is 20, and the lowest possible score is 4.

4.5 RELIABILITY

Pryor (1983) reports reliabilities for internal consistency and for stability for the WAPS.

Internal consistency, split half reliability coefficients were derived by combining the first and third items of each subscale, and correlating them with the second and fourth items. Reliability coefficients are presented in table 2. Data was gathered from a sample of 451 year 10 high school students, 55% of whom were male, and 45% of whom were female.

subscales	split half	test-retest	
	reliabilities	reliabilities	
IND	.65	.71	
COW	.77	.63	
SD	.77	.61	
CRE	.73	.73	
MON	.78	.77	
LS	.70	.69	
PRE	.79	.72	
ALT	.79	.72	
SEC	.82	.63	
MA	.63	.63	
DET	.74	.84	
PA	.67	.64	
SUR	.64	.68	

Test-retest reliability data was gathered from a sample of 191 senior high school students (65% males; 35 % females). The scale was administered twice, with a six week intervening period.

4.6 VALIDITY

The WAPS manual (Pryor, 1983) evaluates the construct validity of the test by computing correlations between the subscales of the WAPS and other established psychological tests. Two approaches are taken.

The first correlates the WAPS with tests with which it is hypothesised to have differing relationships, that is interest inventories (Kuder Preference Record and the Vocational Preference Inventory), ability tests (ACER Higher Test - Form R (Sections L and Q), Ravens Progressive Matrices (PM38), the ACER Silent Reading Tests - Form A (Part 4), and personality tests (Eysenck Personality Inventory, and the Sixteen Personality Factor Questionnaire). All results supported the hypothesis that there was a distinction between the domain measured by the WAPS and the domains measured by interest inventories, ability tests, and personality tests (Pryor, 1983).

The second approach correlated the WAPS with Super's Work Values Inventory. It was hypothesised that work aspects and work values are virtually the same dimensions of work and would correlate highly on many subscales. The results demonstrated that there was considerable overlap of the Work Values Inventory and the WAPS. Of the 195 possible correlations, 62 were significant at a probability of p < .01. Thirty five of the 62 exceeded 0.35 (Pryor, 1983). Although designed primarily for use in vocational counselling, the WAPS can also be used in other contexts. Pryor (1990) gives a strategy for the use of the WAPS in selection. He suggests that it can be used to gain insight into the expectations that an applicant may have about the job. The WAPS can also be useful in identifying individual differences in work motivation (Pryor, 1990).

The researcher considered the WAPS to be suitable for this study as it is a more recently developed instrument than the Work Values Inventory (although it essentially assesses the same domain). It has also been validated on antipodean samples.

CHAPTER FIVE

PRELIMINARY STUDY:

DEVELOPMENT OF THE ORGANISATIONAL FIT SCALE

5.1 INTRODUCTION

To develop a scale that is a valid measure of a construct such as organisational fit requires an idiographic approach. Each organisation has a culture (Schein, 1988) and the norms, values, and attitudes that contribute to this culture are peculiar to the organisation. For this reason, there is no one instrument that is appropriate for widespread use as a measure of organisational fit. Porter (1985) considers that organisations can be regarded as individuals with well defined construct hierarchies, and recommends the repertory grid approach for exploring individual, group, and organisational construct systems.

The repertory grid is considered by the researcher to be the most useful tool for eliciting idiographic organisational information. The technique has been successfully used over a variety of applications and provides a useful means of extracting relevant contextual information from individuals. As each and every organisation is different, the variables management consider to be essential components of organisational fit will differ from organisation to organisation. It follows, therefore, that no one scale or questionnaire will be useful or even relevant from company to company.

The technique is based on Kelly's (1955) Personal Construct Theory. A description of the theory and technique are presented in this chapter, followed by a description of the preliminary study.

5.2 PERSONAL CONSTRUCT THEORY (PCT)

The Repertory Grid technique used in the preliminary study was developed from Kelly's (1955) Personal Construct Theory. Kelly developed the theory as a basis for his work in counselling American university students. The theory focuses on individuality and allows the subject of the interview to define his or her own world in terms that they find most descriptive and meaningful.

Bannister and Fransella (1986) state that Kelly emphasised that people exist to understand their own nature and the nature of the world. Each person has a theory (their way of viewing the world) and hypotheses concerning their expectations of what will occur in certain situations. These hypotheses are developed, consciously or unconsciously, and are maintained, modified, or discarded, according to one's experiences. Kelly (1955) describes this testing of hypotheses as testing a construct in terms of its "predictive efficiency" (p. 12). The current situation will either confirm (validate) these views, or if the information is dissonant, the individual will modify his or her view, or even discard it completely in light of the new evidence.

This validation process is further discussed by Landfield (1988) in terms of the CPC Learning Cycle (circumspection, preemption, control). Construct systems are regarded as flexible in that they can be tightened to be more critical in accepting validational evidence, or loosened to allow even the most spurious evidence to validate the expectation. In following the CPC cycle, the individual opens up, or dilates, their construct system to admit a wide variety of perceptions. In this opening up phase, the construct system is also loosened in the sense that evaluation of the possible validity of the construct is suspended. In the preemption phase an alternative is chosen and followed through. The control phase reveals the validity, or otherwise, of the choice.

Kelly (1955) described this series of constantly evolving hypotheses as a construct system. The word construct is descriptive in two ways, for it carries the sense of construing the way one sees the world, as well as the sense that the system is constructed by the experiences that develop them (Stewart & Stewart, 1981). Each individual's construct system is a result of personal experience.
The philosophical position taken by Kelly (1955) was that of "constructive alternativism" (p.15). There are always alternatives available for the construing of any situation. The individual will anticipate a series of outcomes based on previous experience, and select the one which seems most probable in light of the circumstances. All constructions are subject to revision and replacement, a procedure Kelly (1955) likened to learning from our mistakes.

Life, then, is seen as an on-going, dynamic process of experimentation, throughout which one tests hypotheses and extends the personal construct system. Each person constructs a mental map and refers to it when a decision needs to be made, or a course of action embarked upon. Each incident or encounter prompts the individual to construe the event in terms of the dimensions previously applied to similar situations. The individual may construe the situation in several alternative ways and choose the most appropriate, however the outcome will validate or invalidate the choice that was made.

Personal construct theory implies an idiographic approach to assessment. Eliciting information about an individual's personal view of the world requires an interactive approach, with both the interviewer and the interviewee contributing to the process. The interviewer must be adept at extracting information from the subject without biasing the subject's responses. The subject is encouraged to actively describe the elements in

their own words. The technique developed for the elicitation of information is the repertory grid.

5.3 THE REPERTORY GRID

Kelly (1955) developed the repertory test as a diagnostic instrument for eliciting personal constructs. The repertory grid technique which is an adaption of the original test, was first used by clinical psychologists in analysis, but unlike other techniques primarily developed for clinical use (such as personality tests), the grid is extremely versatile, and has proved to be very successful in a number of fields. The technique has been used for activities as varied as product development, team building, conflict resolution, and evaluation of training programmes (Stewart & Stewart, 1981; Brook, 1986). Easterby-Smith (1980) also cites instances of its use in architectural design, anthropological field work, and town planning.

The technique involves several steps, and begins with a selection of objects (which can be people or things) that define the area of interest. These are known as the elements.

5.3.1 Selection of elements

Literally anything can be used as elements, the main constraint being the underlying objective of the exercise. The elements must however be homogenous (all within the same category), representative of the area being analyzed, and unambiguous, so that the subject readily understands what or who the elements are (Easterby-Smith, 1980).

Usually, any one of three methods is used to choose elements when administering the repertory grid: subjects can be invited to select their own elements, elements can be provided by the interviewer, or the interviewer can provide a list of roles or categories and elicit appropriate elements. The method chosen is usually dictated by the nature and use of the particular grid.

If the subject selects their own elements, then there is the possibility that the domain of interest to the researcher will not be adequately represented. Conversely, the researcher may not know the most appropriate object to supply as an element.

The most useful method then, is for the researcher to supply the elements in the form of role titles. This way she can be sure to include a representative sample of the people with whom the subject must relate in the construing role. For example, in examining attitudes to authority, role titles may include 'a supervisor I enjoy working for'. The subject can then supply the name of someone who fits this role. It is important that the subject chooses a person whom they believe typifies the role title, so that in the course of the interview they can concentrate on the characteristics of this one person, in particular, rather than 'supervisors I enjoy working for', in general.

5.3.2 Eliciting constructs

Construct elicitation is the first stage of the grid interview. Generally a triadic card sorting procedure is used. The researcher places three cards with element names written on them in front of the subject, and he or she is asked to think of a way in which two of the elements are similar, but different from the third (Landfield & Epting, 1987).

The description that the subject uses to characterise the two similar elements is the emergent pole of the bi-polar dimension. The description of the third element forms the implicit pole of the construct and is not necessarily the opposite descriptor. Kelly (1955) emphasises the concept of contrast rather than antithesis. There can be a variety of relationships between constructs (Bannister & Fransella, 1986). For example, the emergent pole may be 'always follows the rules'. The implicit pole does not have to be 'does not follow rules', but could be something like 'takes a more practical approach', or 'has a relaxed attitude to authority'. The subject is encouraged to use descriptors that define the element most clearly for them.

5.3.3 Scoring

The basic question of whether there is an optimum number of rating categories, or at least a number of categories beyond which there is no further discrimination has often been posed. There seems to be little evidence that any specific number is optimal (Komorita & Graham, 1965; Matell & Jacoby, 1971). Matell and Jacoby (1971) found evidence that both reliability and validity are independent of the number of scale points used for Likert-type items. Komorita and Graham (1965), in summarising findings, state that "in some situations more than seven categories are optimal, while in other situations, fewer than seven categories may be justified" (p.988).

Information processing literature discusses the channel capacity of the observer, that is, the greatest amount of information that an individual can process in absolute judgement. Studies on absolute judgement identify a limit known as the span of absolute judgment and "it usually lies somewhere in the neighbourhood of seven" (Norman, 1976, p.91).

A variety of scales and scoring techniques have been used in repertory grid technique. Landfield and Epting (1987) have used a 13 point scale and argue that the broader the scale the greater the value gained in interpretation of meaningfulness. In opposition to this, Stewart and Stewart (1981) argue that a seven point scale is maximum for meaningful discrimination. Honey (1979) tends to use a five point scale, while Smith and Ashton (1975) favour seven points. In some cases, where a quick visual check of the information is all that is required, a simple tick/cross (yes/no) rating can be used (Stewart & Stewart, 1981). Landfied and Epting (1987) also descibe a method of scoring using more favourable (+), less favourable (-), cannot decide (?), and neither favourable nor unfavourable (N).

Thus, in the absence of firm evidence of an optimal number of scale points, the researcher may use her judgment. When both poles of the construct have been elicited, the subject is asked to rate each element in turn. On completion of the rating, another triad can be presented. The process continues until the subject can think of no more constructs. In some cases the researcher will decide on a predetermined number of constructs and stop when that number is reached, however this is at the discretion of the researcher, and depends on the nature and use of the grid.

5.3.4 Analysis and Interpretation

The repertory grid interview provides a large amount of information, and various methods have been developed to summarise construct/element relationships. There are some computer programmes (e.g. Slater's (1964) INGRID, Bell's (1987) G-PACK) available for analysis of repertory grid data. Output can consist of anything from basic grid statistics and distributions, to factor analysis of grid constructs.

The focus of interest for this study was on content analysis of constructs, and data for analysis was limited to a list of bipolar constructs.

5.3.5 Reliability and Validity

The strength of the repertory grid as a technique for understanding an individual's way of looking at life lies in its ability to elicit **idiographic** constructs. Most users agree that a repertory grid is not a conventional test (Bell, 1988). Rather than being regarded as a test which can be scored in objective terms, the repertory grid should be viewed as a structured interview technique. There are no right or wrong answers that can be scored against a template of correct responses. Anastasi (1988) states that interviews are similar to projective techniques in that they yield a wide range of information at the cost of lowered dependability (as opposed to

objective psychometric techniques which provide a narrow band of information of high dependability).

A reliable instrument is one that can be administered to the same persons on different occasions and achieve consistency of scoring (Anastasi, 1988). As the output of a grid will depend very much on the current attitude and feelings of the subject, the grid can be expected to change, especially if counselling has taken place in between administrations of the grid. Results are unlikely to be "reliable" in this sense, but may be "consistent" with the change that counselling was aiming to achieve. Kelly himself considers that it is "more suitable to discuss the *consistency* of the rep grid Test than to discuss its "reliability"." (1955, p.231 italics in original text).

The repertory grid, then, departs from the assumption pertaining to typical psychological test measures, in that it cannot be subject to standards of reliability. The idiographic nature and use of the repertory grid has often been cited as the reason that the concepts of reliability and validity can not be applied to the technique (Bannister & Fransella, 1986; Bannister & Mair, 1968; Landfield & Epting, 1987). Slater (1977) argues that for reliability to be investigated by traditional methods, the samples must be drawn randomly from an objectively defined population. The idiographic nature of the grid does not satisfy this assumption.

Bannister and Fransella (1986) state that the technique is not a test and does not have specific content in that it does not measure traits or characteristics. Kelly is reported as being prepared to equate validity with usefulness and increased understanding (Bannister and Fransella, 1986). If, then, the technique meets these standards, it can be considered to be valid for that purpose.

5.4 AIM OF THE PRELIMINARY STUDY

The aim of the preliminary study is to develop a scale which can be used to measure organisational fit. To accomplish this, those constructs that the organisation considers important for success must be identified. The importance the organisation places on these constructs implies that it is these characteristics that are used in assessing how well the employees fit.

5.5 INTRODUCTION TO THE ORGANISATION

The subjects who participated in this study were drawn from a large manufacturing organisation with a stated commitment to excellence. Any new employee is introduced to the organisation by means of a four day induction seminar, which covers basics such as parking, telephone systems and fire drills, as well as introducing neophytes to the products, systems, and quality control. The following statement, written by the Managing Director, appears on the first page of the glossy employee booklet outlining the tenets of the company:

"...was founded by a man of vision. Over 100 years later the company still reflects these values. Our industry is an uncompromising one, accepting only the highest standards of integrity and performance. As a leader in the business world, offers employees an opportunity for personal development and a high quality of working environment."

The handbook goes on to outline the three important fundamentals for success in their business.

"we must give everyone the opportunity for personal development, we must at all times talk freely to each other (good and bad), we must provide our customers with product and service of the highest quality."

While these are the stated constructs for determining excellence in the organisation, it was necessary to independently verify the importance of these constructs, as well as identify any other dimensions which the organisation used in its evaluations of employees'. These constructs could then be used to develop a scale which is used as a measure of organisational fit.

5.6 SUBJECTS AND PROCEDURE

All seven members of the organisation's management committee, one female and six males, ranging in age from 36 to 56, took part in the interviews. Length of tenure with the organisation ranged from 3 years to 34 years, and averaged 18.25 years. Three subjects had been with the organisation more than 30 years. All subjects were interviewed independently.

The researcher explained the technique of the repertory grid interview, and worked through the following triad as an

example: the interviewee was asked to think about a car, a train, and a horse, and then tell the researcher how two of these elements were alike, but different from the third. When the interviewee had done this, the researcher gave an example of an alternative pairing to show how the triad could be viewed in a different way. For example, if the subject had paired the car and train because they were both man made, the researcher would give the alternative of pairing the horse and the car because they can only carry a few passengers as opposed to a train which can carry hundreds. All subjects readily understood the method.

The nine role titles for the elements are listed in table 3. These categories were chosen in advance by the researcher. To ensure contrasting traits, the list included a combination of people who would be considered positively in relation to the organisation, as well as those who would be considered negatively. Each index card was printed on one side with a role title and was presented to the subject in turn. The subject was asked to think of someone who typified the role. The subject then turned the card over and wrote the name, or initials (to maintain confidentiality) of that person on the back of the card. When all roles had been identified with a particular person, subjects were asked to ignore the role title, and to concentrate on the people themselves and the characteristics those people exhibited. This was to ensure that the subject did not project behaviours they imagined someone filling the role title would engage in, but rather concentrated on the actual person who may or may not exhibit these behaviours.

Table 3: List of role titles for the elements

- 1 self as an employee of the organisation
- 2 excellent current employee
- 3 ideal company person
- 4 adequate current employee
- 5 an employee who left, or was let go because they did not meet the standards of the organisation
- 6 highly rated peer
- 7 unsuitable applicant
- 8 someone outside the organisation whom you consider to be a competent manager, but who would not fit into the organisation
- 9 someone you think of negatively in terms of the organisation

The researcher initially presented the elements in three triads, as described in section 5.3.2, so that all nine elements were considered within the first three trials. For example cards 1, 3, and 4 would be presented, followed by cards 9, 2, and 5, then cards 6, 7, and 8. Following these three trials, the researcher continued to present triads so that elements were considered, as far as possible, an equal number of times. (This was not always feasible as some subjects produced more constructs than others.)

On presentation of each triad the subject was asked to think of a way in which two of the people were similar (this description was the emergent pole of the construct). The subject was then asked how the third person differed from the other two, and this description served as the implied, or contrasting, pole of the construct.

As each bipolar construct was elicited it was written on the grid form (included in Appendix B). Subjects were then asked to rate each element in turn, on a scale of one to seven where one represented most like the emergent pole of the construct, and seven represented most like the contrasting pole.

Construct elicitation continued until the subject had produced all possible constructs. The number of constructs provided by subjects ranged from 7 to 11, averaging 9.

The output of the repertory grid interviews was used to generate the Organisational Fit Scale.

5.7.1 Content analysis of the repertory grids

Analysis of the output from the repertory grid interviews revealed a total of 64 bipolar constructs. Content analysis as described by Stewart and Stewart (1981) was carried out. Cards containing construct labels were sorted into what the researcher considered to be homogenous groups. The construct descriptions written on the cards were analyzed together with the researcher's interview notes for each subject. For example, an emergent construct written as 'always tries to do better' was accompanied by interviewer notes such as 'won't just accept any standard', and 'knows that there is no such thing as good enough'. This additional information helped to define the categories more clearly.

When a construct appeared more than once and was described in exactly the same terminology, the duplicate cards were discarded, as there was little value in retaining two cards with the same construct. However, when what seemed to be the same characteristic was described in slightly different words (for example 'team oriented' and 'takes a team approach') all constructs were retained to avoid losing information. Categories were then labelled, and the construct cards were coded so that the researcher could easily identify the categories to which they had been assigned. There were six categories, as listed in table 4.

To test the reliability of the researcher's groupings, construct cards were then shuffled and distributed, along with the category labelling cards, to three colleagues. These colleagues were asked to sort the cards into the categories that they thought most appropriate. The categories themselves for the most part proved to be robust. In cases where there was some overlap of category, more information obtained in the elicitation of constructs stage was added to the cards to better define the construct. For example, 'perfectionist' was sorted into both the 'high achievement' category and the 'enthusiasm' category until 'won't accept mediocrity' was added to the card. This added dimension of description (a perfectionist who won't accept mediocrity) enabled people to sort the card reliably into the 'high achievement' category.

One of the categories labelled 'seeking challenge' was not reliable and was renamed 'independence' to better reflect the content of the category. Subsequent sorting proved reliable.

category	no. of constructs		
skills with people	17		
creativity	4		
high achievement	6		
enthusiasm	6		
independence	6		
above average intelligence	5		

Table 4: Categories of organisational fit developed from the repertory grid

5.7.2 Development of the scale

The six constructs presented in table 4 provided the basis for the organisational fit questionnaire. The category labelled 'skills with people' had considerably more constructs than any of the others (almost three times as many as the next largest category). For this reason the researcher decided to further divide the category. Content analysis of the 17 constructs revealed three subgroups. Reference to notes made during the repertory grid interviews confirmed that there were three themes within the 'skills with people' category. Consequently the researcher decided to subdivide this category into 'allows opportunities for people', 'understands the needs of people', and 'adopts a team approach'. Division of this scale contributed three items to the final eight on the Organisational Fit Scale (see Appendix C).

In wording the questions for the Organisational Fit Scale, the phrases used by subjects during the repertory grid interviews were retained. This was done to reflect accurately the idiosyncratic constructs of the organisation. For example, items 2 and 5 respectively ask, "Does this person understand the needs of people?", and "Does this person challenge the status quo?". These are the same expressions which subjects used in the interviews.

5.7.3 Choice of scale point anchors

The organisation does not retain employees who do not meet its exacting standards, so it was the researcher's belief that a severe and significant skew in ratings would result if a standard rating scale using extreme opposite anchors was used. If, for example, a scale with the anchors of always, almost always, usually, sometimes, almost never, and never, was used, it was expected that a very high percentage of the ratings would be 'always' or 'almost always' in response to positive questions. (To avoid the confusion caused by double negatives, the researcher chose to word all questions in a positive direction.) If employees 'almost never', or 'never' demonstrated the behaviour in question, then it is unlikely that they would be retained by the organisation. For this reason it was decided to anchor the negative end of the scale with a label that was less extreme ('rarely' as opposed to 'never') than the equivalent anchor at the positive end of the scale ('always'). Six verbal anchors were chosen to avoid central tendency.

To pilot test the scale, the six anchors were written on cards and given to three colleagues to sort. A problem in semantic interpretation of two of the anchors was unable to be resolved, even after similes were substituted. There was, for example, considerable argument over whether 'frequently' was more often than 'usually'. At this point another eight colleagues were asked to sort the cards. Three people sorted the cards in the order rarely, sometimes, frequently, usually, almost always, and always, while the other five transposed usually and frequently. It was clear that there would be similar problems with the subjects' interpretations of the anchors, so the researcher decided to use a Visual Analogue Scale (VAS).

In its usual form, the VAS consists of a 10 centimetre line anchored at both ends with either a numerical or verbal descriptor of the minimal and maximal extremes of the dimension being measured (McCormack, Horne, & Sheather, 1988). The line may be marked with graduations (see fig. 1).



Figure 1 : Examples of Visual Analogue Scales

The respondent is asked to mark the scale at the point they feel most accurately represents their response to the statement or question prompt. When the subject has completed the questionnaire, the researcher is then able to score the scale by inserting points along the scale. McCormack et al. (1988) note that the scoring method may be as fine as the researcher desires, going as far as 1 to 100 in one millimetre markings. It is also stated that the decision of scoring interval should be made at the time of construction, on the basis of the design of the study and expected distribution of scores.

As has already been discussed the researcher in this study expected some skew in the distribution. On the basis of this expectation, the negative end of the scale was anchored with a less extreme descriptor (rarely) than the corresponding anchor at the positive end of the scale (always). The researcher elected to retain scoring intervals of one millimetre in order to maintain the maximum discrimination in responses.

Rationale and reliability of the VAS

In any subjective rating there are problems of interpretation, be they of the relative strength of numerical anchors, or of the semantic interpretation of verbal descriptors. The VAS provides a practical and simple technique for measuring subjective judgements. A critical review of the clinical applications of the VAS by McCormack et al.(1988) stated that the VAS has been found to offer "a sensitivity of scoring which is impossible with digital and verbal rating scales" (p.1007).

CHAPTER SIX

MAIN STUDY: AIMS AND METHOD

6.1 AIMS OF THE PRESENT STUDY

To date there is limited support for Schneider's ASA (1987) theory. Jordan et al. (1991) found some support for the attraction and selection component of the model, but not for the attrition hypothesis. In investigating the homogeneity hypothesis directly, Bretz et al. (1989) found only marginal evidence of smaller within group differences. This study is designed to further test Schneider's (1987) theory, by assessing the homogeneity within an organisational group compared with a group of individuals who work in a range of different organisations. The attraction-selection component will be supported if the organisational group is found to be more homogenous. To support the attrition component, the results must show that longer tenure employees are different to shorter term employees. In relation to this, it is expected that longer term employees will also be perceived as fitting into the organisation better as they have not been lost through attrition.

6.2 STATEMENT OF HYPOTHESES

The specific hypotheses to be tested are:

Hypothesis 1

Individuals in an organisational group will be more similar to each other (a more homogeneous group) than a comparison group of potential applicants are to each other.

Hypothesis 2

Individuals who remain longer in an organisation will be different from those of shorter tenure in terms of their work aspect preferences.

Hypothesis 3

The longer an individual remains in an organisation the higher they will be rated on an organisational fit scale.

6.3 METHOD

6.3.1 Subjects

This study employed two groups of subjects.

A: Thirty nine senior managers, all current employees of the organisation. Four male subjects did not return the questionnaires and were not included in the final sample of 35; 11 females and 24 males, ranging in age from 27 to 63. Length of tenure ranged from less than one year to 41 years, and averaged 10.68 years.

B: A control sample of 100 working persons enroled as students in the executive Master of Business Administration degree at Massey University, Palmerston North. The Executive MBA programme is open to individuals who have an undergraduate degree other than that of Business Studies, and also to individuals who may not have a formal undergraduate qualification but who have considerable experience in the business world². The sample obtained was a convenience sample in that questionnaires were distributed to executive MBA students by Business Studies Department staff who travelled to Auckland, Wellington, and Christchurch to lecture on weekend courses. After one month, 42% of the questionnaires had been returned. This final sample included 6 females and 36 males aged between 25 and 53.

² Ideally, a pool of applicants would be used as a comparison group, however as an applicant pool was not available, executive MBA students provide a suitable comparison group, as they have the qualifications and work experience necessary to qualify them as potential applicants.

6.3.2 Materials

Repertory Grid:

Nine different role titles, chosen to represent the domain of 'fitting into the organisation' (as described in the preliminary study in 5.6), were printed on one side of 70mm x 135mm index cards and used for card sorting of elements. Constructs and elements were transferred to a grid form (see Appendix B).

Organisational Fit Scale:

The results from the repertory grid interviews were analyzed and used as the basis for development of the Organisational Fit Scale (see Appendix C). Full details of the development of this scale are presented in chapter 5. The scale consists of eight items relating to aspects of fit, plus one item assessing overall fit within the organisation.

Work Aspect Preference Scale (WAPS):

The WAPS is a 52 item questionnaire which differentiates between 13 qualities of work, and measures a respondent's degree of preference for these qualities through ratings of importance. A full description of the scale and rationale for its use in this study is provided in Chapter 4.

6.3.3 Procedure

Administration of the Organisational Fit Scale:

Thirty-four rating scales were delivered to the organisation. Senior managers were asked to rate all other managerial staff who report directly to them. Thus, ratings were provided by five of the seven senior management staff. The Managing Director rated the other six members of his management committee as well as two other managers who report directly to him. No-one rated the Managing Director. The other four members of the management committee rated groups of 12, 4, 5, and 3. One manager, not a member of the management committee, rated two individuals who reported directly to him. It is noted that multiple ratings done by managers are not independent, however practical restraints dictated that ratings be gathered in this way.

All thirty-four rating scales were completed, providing a 100% response rate.

Administration of the Work Aspect Preference Scale (WAPS): Thirty nine copies of the WAPS, answer sheets, covering information sheets (Appendix D), and freepost envelopes were delivered to the organisation, and were distributed at the monthly management meeting. This meeting is attended by all management staff. Thirty three questionnaires were returned within 14 days, and 2 more in the following week. One subject declined involvement in the study, and 3 forms were not returned. Thirty-five completed questionnaires provided a response rate of 89%, and this was considered very acceptable.

One hundred copies of the WAPS, answer sheets, covering information sheets, and freepost envelopes were delivered to the Executive MBA office at Massey University. Bundles of questionnaires were taken to distant centres (Christchurch, Wellington, and Auckland) by Massey lecturers delivering weekend courses. Questionnaires were also distributed to local Executive MBA enroled students at Massey University in Palmerston North. Forty two questionnaires were returned within one month. This represents a 42% rate of return, which is an average level of return for a postal questionnaire.

CHAPTER SEVEN

RESULTS

7.1 ASSESSING GROUP SIMILARITIES

The first two hypotheses are tested by an analysis of data gathered on the WAPS. The WAPS is a 52 item questionnaire giving scores on 13 subscales (as described in Chapter 4). The scale was completed by 35 members of the organisation's management group, and 42 members of the Executive MBA programme.

Prior to analysis, the data for the organisational group and the MBA group were screened separately. There were no standard deviations large enough to indicate wide variation in the scores on the subscales. Absence of significant skewness and kurtosis indicated that variables were approximately normally distributed. There were no obvious univariate outliers, and no missing data. Correlations between variables were calculated, and are displayed in table 5. Fifteen coefficients are above 0.3, significant at p < .05, and two are above 0.5, significant at p < .001 (Altruism and Security, and Life Style and Security respectively).

Table 5	: Correlatio	ons between	WAPS var	iables for th	ne organisati	onal group	
	IND	COW	SD	CRE	MON	LS	PRE
IND							
COW	199						
SD	.104	099					
CRE	.253	325*	.254				
MON	.099	.239	.008	094			
LS	150	.038	012	.016	.187		
PRE	368*	.412*	281	428*	.476*	.112	
ALT	186	.459*	.239	081	062	.277	.005
SEC	168	.339*	097	129	.129	.536@	.217
MA	039	.255	.380*	035	.351*	.156	.337*
DET	.158	.094	.021	.093	.150	.409*	.013
PA	.236	.203	086	.101	.492*	.249	.184
SUR	.295	.120	.034	.071	029	.240	.025
	ALT	SEC	MA	DET	PA		
				221			
SEC	.605@						
MA	.029	.206					
DET	.152	.136	032		×		
PA	002	.112	.265	.482*			
SUR	.240	.275	.056	.204	.122		
5							
* p	< .05						
@ p	< .001						

A reliability analysis of the 52 item scale was carried out and identified item alphas ranging between 0.85 and 0.86, with a standardised item alpha of 0.86. A reliability analysis of the 13 subscales was also carried out and the results are presented in table 6.

To test the internal consistency of the scales, split half reliabilities were carried out (see table 6). Scores on the first and third items of each subscale

were added to form one score, while the second and fourth items formed the second score. The split half scores for each subscale were then correlated, and the reliability checked using the Spearman-Brown test. This method is identical to that adopted by Pryor (1983).

Table 6: Standard item alphas and split half reliabilities for 13 subscale items on the WAPS.

Subscales	standard ite	m alphas	split half reliabilities
INDEPENDENCE	0.64*		0.53*
CO-WORKERS	0.75		0.70
SELF-DEVELOPMENT	0.77		0.83
CREATIVITY	0.80		0.84
MONEY	0.69* 35		0.70
LIFE STYLE	0.75	ř.	0.81
PRESTIGE	0.73		0.78
ALTRUISM	0.77		0.86
SECURITY	0.92		0.91
MANAGEMENT	0.83	3	0.85
DETACHMENT	0.83	ą.	0.85
PHYSICAL ACTIVITY	0.68*	3	0.83
SURROUNDINGS	0.63*		0.72
* < 0.70	1 T. 20		

Comparison of the split half reliabilities reported in the manual (Pryor, 1983) and those obtained in this study are consistent in that Independence has the lowest reliability coefficient (0.65 and 0.53 respectively). Other than this subscale only 3 of the 13 have lower reliabilities in this study than those reported in the manual, and all three are 0.70 or higher: Co-workers 0.70, Money 0.70, and Prestige 0.78.

For this study the results indicate that the overall reliability of the WAPS is satisfactory, with only four items alphas falling below 0.70 (Independence, Money, Physical Activity, and Surroundings), and only one split half reliability under 0.70 (Independence). This suggests that results on these four subscales should be interpreted cautiously.

7.1.1 Assessing group homogeneity

Group differences can be detected in two ways: the group means may be significantly different indicating that the characteristics exist to a greater extent in one group than in the other, or the means could be similar, but with differing degrees of dispersion around the means.

The first hypothesis concerning the homogeneity within the organisational and comparison groups was tested by an F-test for equality of variances. Subsequently, a post hoc analysis was carried out to assess differences between the group means using independent t-tests.

None of the F ratios for any of the 13 subscales proved significant at the 0.05 level (see table 7), indicating that the null hypothesis (that both samples come from populations with a common variance) cannot be rejected. If, however, a 0.10 level of significance is applied, there is a marginally significant effect on two variables, Altruism (F = 1.87, p = .065) and Management (F = 1.81, p = .071), suggesting that on these two

variables the organisational groups is more similar than the contrast group. The organisational group had a higher mean scores on Altruism, and a lower mean score on Management (see table 7), but these were not significant.

Subscale	mean group 1	mean group 2	F value	p value
INDEPENDENCE	15.58	15.16	1.07	.841
CO-WORKERS	15.43	14.19	1.08	.829
SELF-DEVELOPMENT	17.71	17.73	1.02	.950
CREATIVITY	16.65	15.54	1.59	.171
MONEY	14.74	15.47	1.49	.239
LIFE STYLE	12.54	13.52	1.12	.714
PRESTIGE	14.25	14.59	1.26	.488
ALTRUISM	14.00	13.40	1.87	.065*
SECURITY	14.52	12.78	1.03	.936
MANAGEMENT	13.00	13.45	1.81	.071*
DETACHMENT	09.02	10.11	1.02	.967
PHYSICAL ACTIVITY	11.62	11.83	1.17	.636
SURROUNDINGS	15.31	13.54	1.54	.200
* p < .10			40	

As the results did not show significantly different variances at p < .05, a post hoc analysis was conducted to see whether or not there were any significant differences in means across the two groups. The non significant result for all of the F- ratios indicated that the pooled variance t-test model could be used.

Independent t-tests were carried out to identify any significant differences in means between the two groups on any of the thirteen subscales of the WAPS. Three subscales, Coworkers, Security, and Surroundings, showed significant differences between the groups, as presented in table 8.

Table 8: Comparison of organisational and comparison groups over three variables with significant differences.

variables	group	N	mean	std dev	t value	р	
COW	1	35	15.43	2.07	2.55	.05	
	2	42	14.19	2.15			
SEC	1	35	14.52	3.69	2.03	.05	
	2	42	12.78	3.74		0.000	
SUR	1	35	15.31	2.15	2.55	.01	
	2	42	13.54	2.67			

group 1 =organisational group group 2 =comparison group (MBA)

The organisational group had a significantly higher mean on all three variables, indicating that a concern for friendship and understanding from co-workers, security of tenure, and a concern for the work environment are all significantly more important to this group than to the comparison group.

In summary, the findings indicate that the organisational group members were no more alike in their work related values than a comparison group of people who belonged to a diverse range of organisations.

7.1.2 Differences across tenure

The second hypothesis concerning differences over tenure in the organisational group was examined by plotting ratings on the 13 WAPS subscales against tenure, and by calculating correlation coefficients. Analysis of each of the thirteen plots revealed no discernable relationship between the variables, and there were no significant correlations between any of the 13 subscales and tenure. Figures 2 and 3 are two examples of the plots obtained, and table 9 displays the correlation coefficients.



Figure 2: Plot of tenure with scores on the Independence subscale of the WAPS



Figure 3: Plot of tenure with scores on the Management subscale of the WAPS

WAPS SUBSCALE	TENURE	
INDEPENDENCE	.099	
CO-WORKERS	.077	
SELF DEVELOPMENT	057	
CREATIVITY	269	
MONEY	274	
LIFE STYLE	.019	
PRESTIGE	.102	
ALTRUISM	.230	
SECURITY	.279	
MANAGEMENT	.226	
DETACHMENT	035	
PHYSICAL ACTIVITY	259	
SURROUNDINGS	.249	

No correlation significant at 0.05

n = 35

Tenure was then dichotomised at the midpoint providing 15 subjects in a group of seven years or less tenure, and 20 in a group of more than seven years tenure (six subjects had eight years tenure, so the subjects could not be divided evenly into two groups). Independent t-tests between the two tenure groups were carried out over the 13 variables of the WAPS scale. The results are presented in table 10. Although none of the results are significant at p < .05, there does seem to be a marginal difference between the tenure groups on three of the variables, which are all significant at

p < .10: Co-workers, Security, and Detachment. The short tenure group had higher mean scores on Co-workers and Detachment, and the longer tenure group had a higher mean score on Security.

In summary, there were no obvious relationships between length of time that organisational members had been employed by the organisation and their work aspect preferences. However, when tenure was dichotomised into long and short tenure groups, longer term employees tended to place more emphasis on security, while their shorter tenured colleagues were more concerned with relationships with their co-workers, and the ability to separate their work life from their home environments.

Table 10: Comparison of two tenure groups over the 13 WAPS variables.						
variables	group	N	mean	std dev	t value	р
IND	1 2	15 20	15.33 15.95	2.09 1.96	-0.89	.383
COW	1 2	15 20	16.20 14.85	2.07 1.93	1.96	.059
SD	1 2	15 20	18.07 17.55	1.71 1.87	0.85	.403
CRE	1 2	15 20	16.87 16.50	2.13 2.39	0.48	.636
MON	1 2	15 20	15.13 14.45	1.73 2.09	1.06	.298
LS	1 2	15 20	11.93 13.00	3.78 3.68	-0.84	.410
PRE	1 2	15 20	15.00 13.70	1.96 2.83	1.60	.119
ALT	1 2	15 20	13.07 13.30	2.40 2.62	-0.27	.786
SEC	1 2	15 20	13.2 15.5	3.40 3.66	-1.91	.065
MA	1 2	15 20	13.20 12.85	4.04 3.45	0.27	.789
DET	1 2	15 20	10.13 8.20	2.90 3.32	1.83	.076
PA	1 2	15 20	12.53 10.95	2.59 3.22	1.61	.117
SUR	1 2	15 20	14.60 15.85	2.47 1.75	-1.67	.108

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group 1 = tenure of seven years or less group 2 = tenure of more than seven years
7.2 ASSESSING ORGANISATIONAL FIT

The hypothesis referring to level of organisational fit was tested using the Organisational Fit Scale developed for the current study. Ratings were obtained for the 34 subjects in the organisational group by the procedure described in section 6.3.3, on the eight variables (table 11) found to be components of organisational fit. (A full description of the variables, and of the procedure used to develop the scale is presented in chapter 5.) An overall fit rating was also obtained.

Table 11: Va	ariables making up the Organisational Fit Scale	
OPPS	Allows opportunities for people	
NEEDS	Understands the needs of people	
TEAM	Adopts a team approach	
ENTH	Demonstrates enthusiasm	
ADEQ	Is dissatisfied with a merely adequate standard	
CHALL	Challenges the status quo	
CREAT	Demonstrates creativity	
IQ	Above average intelligence	
FIT	Overall fit in the organisation	

Prior to analysis the data was screened. Standard deviations were inspected for variability around the mean. There were no standard deviations large enough to indicate wide variation in the scores. There were missing data for two subjects. In both instances there were no ratings given for the three variables OPPS, NEEDS, and TEAM. The mean was substituted in both cases, as the scores were normally distributed on all variables. There were no univariate outliers, and all variables were normally distributed with the exception of IQ, which was negatively skewed (z = -2.08, p < .05), and showed positive kurtosis (z = 2.69, p < .05). A square root transformation was carried out and skewness and kurtosis reduced to a non significant level. IQ was renamed NEWIQ after transformation. Correlations between variables were checked, and these are displayed in table 12. There are 15 (42%) correlations above 0.5, 8 of which correlate above 0.7 (22%).

	OPPS	NEEDS	TEAM	CREAT	CHALL	ENTH	ADEQ	NEWL
OPPS								
NEEDS	.86+							
TEAM	.89+	.86+						
CREAT	.23	.04	.02					
CHALL	.29	.04	.10	.73+				
ENTH	.18	.20	.26	.30	.44			
ADEQ	.44	.15	.26	.58+	.81+	.37		
NEWIQ	.20	.09	.15	.64+	.61+	.36	.61+	
FIT	.81+	.74+	.72+	.53*	.54*	.42	.51*	.34
* p < .01								
+ p < .001								

A reliability analysis of the scale was also carried out. Item alphas ranged from 0.79 to 0.86 with a standardised item alpha of 0.76.

7.2.1 Assessing Organisational Fit

The hypothesis concerning length of tenure and fit was initially examined by plotting tenure against the sum total of the eight ratings of the Organisational Fit Scale to check possible relationships between the variables. Tenure was then dichotomised as before, and an independent t-test carried out between the two groups.

The scores on the eight variables making up the Organisational Fit scale for each subject were summed to give a TOTAL score. (It should be noted that this TOTAL score is a separate value from the OVERALL FIT rating.) The TOTAL rating was plotted against tenure, revealing no discernible relationship. Tenure was then dichotomised at the midpoint providing a group of 15 subjects with seven years or less tenure, and a group of 19 subjects with more than seven years tenure (six subjects had eight years tenure, so the subjects could not be divided evenly into two groups). Independent t-tests between the two tenure groups showed no significant difference in ratings for TOTAL fit.

The global FIT variable was also tested by means of an independent t-test, and also showed no significant difference between the two tenure groups. Results are presented in table 13.

Table 13: Comparison of the two tenure groups over TOTAL fit and overall FIT							
subscale	group	N	mean	std dev	t-value	р	
TOTAL	1	15	470.35	63.28	-1.16	.25	
	2	19	506.89	112.29			
FIT	1	15	57.60	9.07	-1.76	.09	
	2	19	65.68	17.28			

group 1 = tenure of seven years or less group 2 = tenure of more than seven years In both cases, the mean is higher for the longer tenure group, and the larger standard deviation indicates more variability in the scores for this group. Thus, while the results were not significant at the .05 level, the trend towards organisational members of longer tenure showing higher ratings on fit than those of shorter tenure was in the expected direction.

7.2.2 Post Hoc Analysis

The high correlations among variables (table 12) suggested relationships that required further investigation. Post hoc analyses were therefore carried out. An initial stepwise regression was run on all variables with the intention of building a model to include the variables predicting overall fit. It is generally considered necessary to have a ratio of at least five cases to each independent variable (IV) (Tabachnik & Fidell, 1989), however the ratio of 4.25:1 was accepted in this instance as the purpose of the current investigation was descriptive rather than inferential.

Multivariate data screening was carried out. A regression analysis was performed to check for multivariate outliers, identified by Mahalanobis distance (X = 26.12, df 8, p < .001). There were none. The data met all the assumptions of normality, linearity and homoscedasticity. The presence of high correlations among variables as seen in table 12, suggested problems with multicollinearity, and this was confirmed by the tolerance statistics, which were all low, ranging from TEAM at 0.11 to ENTH at 0.68, with a mean of 0.25.

The data met almost all of the assumptions for multivariate statistical analysis. It should be reiterated, however, that the ratio of cases to independent variables is less than that generally considered acceptable, and the presence of a number of correlations between variables (see table 12) suggests problems with multicollinearity. For this exploratory analysis, multivariate analyses were carried out with these reservations in mind.

It was hypothesised that assessments of overall fit can be predicted by ratings on one or more single dimensions of fit in the Organisational Fit Scale. Multivariate analysis in the form of regression was carried out to test this hypothesis. A subsequent factor analysis was also carried out to explore the independence of the dimensions of fit on the scale.

Stepwise regression:

Stepwise regression was performed with FIT as the dependent variable, and OPPS, NEEDS, TEAM, ENTH, CHALL, CREAT, NEWIQ, and ADEQ as the independent variables.

Three of the eight variables (OPPS, CHALL, and ADEQ) were entered into the equation before the limit of p < .05 was reached. Table 14 displays the standardised regression coefficients (Beta), multiple R, R², adjusted R², and sr², after entry of all three significant independent variables. The values of sr² as shown in table 14, indicate the amount by which R² (the total variability) is reduced if the independent variable is deleted from the regression equation. As can be seen, the combined values of sr² contribute 74% of the total variance in the equation, the dependent variable FIT accounting for the remaining 10% (R² = .84). Multiple R for regression was significantly different from zero at the end of each step. With three variables in the equation, multiple R = .92, F (3,30) = 53.88, p < .001.

variables	В	Beta	sr ²	t value	р	
OPPS	.64	.83	.52	9.99	.001	
CHALL	.65	.74	.17	5.67	.001	
ADEQ constant	38	45	.05	-3.19	.005	
multiple R .9 R ² .84- adjusted R ² .8	2* + 3					

After step 1, with OPPS in the equation, $R^2 = .64$, F (1,32) = 57.02, p < .001. After step 2, with CHALL added to the prediction of FIT, $R^2 = .79$, F (2,31) = 58.37, p < .001. After step 3, with ADEQ added to the equation, $R^2 = .84$ (adjusted $R^2 = .83$), F (3,30) = 53.88, p < .001.

In summary, the variable OPPS contributes the greatest amount of explained variance (52%) to the multiple regression equation, indicating that it is the single most important variable used in predicting FIT. CHALL contributes a further 17%, and ADEQ a further 5% of the total variance.

Factor Analysis:

As the researcher had made the decision to subdivide the 'skills with people' category into OPPS, NEEDS, and TEAM (see Chapter 3), a factor analysis was carried out to investigate whether or not these three variables were separate dimensions of judgement.

To maximise the variance across all factors, Principal Components Analysis with varimax rotation was performed initially on the eight items. Two factors were extracted. As indicated by the rotated factor matrix in table 15, factors were well defined by groups of variables.

Gorsuch (1983) states that where a test has high internal consistency, a varimax rotation is inappropriate, as a general factor may underlie most of the test items. An oblique rotation (oblimin) was therefore performed, but as table 15 shows, there was very little difference in the factor scores. The internal consistency of the factors is good, with the squared multiple correlations equal to 1.00 for both factors.

Table 15: Factor loadings for varimax and oblimin rotations							
	Oblimin		Varim	ax			
variables	Factor 1	Factor 2	Factor 1	Factor 2			
CHALL	.922	.024	.919	.120			
ADEQ	.851	.206	.869	.293			
CREAT	.835	.017	.828	.069			
NEWIQ	.809	.045	.809	.129			
ENTH	.502	.210	.522	.261			
TEAM	.083	.960	.189	.964			
NEEDS	.015	.950	.330	.949			
OPPS	.228	.931	.121	.947			

Correlation between factors = .214

Communalities indicate the percent of variance in a variable that overlaps with the variance in other factors. Table 16 indicates that the variables are well defined by the factor solution, with only one low communality (ENTH at 0.296). This would indicate that ENTH does not load strongly onto a factor, and the low factor loadings for ENTH (table 15) support this conclusion.

Table 16: Communalities from the factor solution with oblimin rotation				
OPPS	.918			
NEEDS	.903			
TEAM	.929			
CREAT	.698			
CHALL	.851			
ENTH	.296			
ADEQ	.766			
NEWIQ	.656			

It should be noted that there are some limitations to the analysis. Even though the correlations among variables are favourable for factor analysis (50% of the correlations greater than 0.3; see table 13), the Kaiser-Meyer-Olkin measure of sampling adequacy³ is only 0.56, which should be considered mediocre at best (Tabachnik & Fidell, 1989).

In summary, the results of the factor analysis indicate that the eight variables making up the Organisational Fit Scale define only two separate dimensions. The division of the 'skills with people' category into three separate dimensions provided no further differentiation within the classification.

³This is the ratio of the sum of squared correlation to the sum of squared correlations plus sum of squared partial correlations. Values of .6 and above are required for good Factor Analysis.

CHAPTER 8

DISCUSSION

The current study has tested the components of Schneider's (1987) ASA model. The hypothesis that longer tenure employees will be rated more highly on an organisational fit scale was also tested.

The results of the present study offer some minimal support for the homogeneity hypothesis. It was found that the 35 members of the organisational group were no more homogenous than the comparison group of 42 potential applicants at a significance level of .05. However if the less stringent level of .10 is applied then both Altruism (F = 1.87, p = .065) and Management (F = 1.81, p = .071) show significant differences. These findings concur those of Bretz et al. (1989) in that they provide some marginal support for the homogeneity hypothesis. Bretz et al. (1989) found a marginally significant effect for Achievement (F = 3.177, p = .076), and comment that sound arguments can be made for individuals with high need for achievement being attracted to organisations which reward effort and accomplishment. The current results indicate that individuals within the present organisation are more in agreement (that is, more homogeneous) concerning altruism and management than a comparison group of potential applicants. Moreover, there was a tendency for the organisational members to be more concerned with altruism and less concerned with management,

although this trend was not statistically significant. The subscale Altruism measures the importance people place on work which they feel helps them to build a better society, enables them to make a contribution to the community, and helps others live a fuller life. The organisation in the present study manufactures products which do help people to maintain and improve their health and well-being. Thus, it may attract employees who have strong altruistic motivations. If these employees already hold altruistic attitudes, then the organisation may provide an environment in which these attitudes are enhanced. This is consistent with the Betz and Judkins (1975) study which found that attitudes of individuals were already formed before joining the organisation; continued tenure in the organisation served only to reinforce those attitudes already held. The findings for the subscale Management are also consistent with these findings. The organisation in question promotes a team oriented and co-operative atmosphere, rather than a strictly hierarchical structure, and this would seem likely to be attractive to those who place less emphasis on structured management. However, the marginal significance (p = 0.071) of the results does not allow any firm conclusions to be drawn.

It should also be noted that the domain of individual differences is large and varied, and the thirteen subscales of the WAPS represent only a small part of this domain. Thus, there may be differences which do exist, but which are not identified using this instrument.

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The post hoc analysis conducted to identify any differences in level of work aspect preferences between the groups disclosed significant results. The organisational group proved to be significantly different (at p < .05) on their scores on three subscales: Co-workers, Security, and Surroundings. This indicates that the organisational group attaches greater importance to, and has more concern for a friendly and pleasant work environment in which they feel security of tenure. The organisation used in the present study is known for its pleasant and somewhat elegant surroundings, and so it is possible that the employees, accustomed to working in such a setting, do attach more importance to pleasant surroundings than they would were they used to a more austere environment. Given the emphasis that the organisation places on people related skills and team work, the findings on the subscale Co-workers are not surprising. Organisational members valued relationships with co-workers more highly than did the comparison group. Statements on the WAPS which contribute to the score on this subscale include "work in which you have pleasant people to work with" and "work in which you enjoy the company of the people you work with". Attaching importance to these aspects of work is understandable if close co-operative work is expected by the organisation. The emphasis placed on the importance of security may well be a reflection of the current economic climate in New Zealand, which is characterised by high levels of redundancy and long term unemployment among those at managerial level. The issue of job security would therefore seem to be of some concern for

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employees. This issue is underscored by the results across tenure groups as discussed below.

The results of the present study are also consistent with those of Jordan et al. (1991) in that they fail to support the tenure hypothesis. Tenure was not related to any of the 13 variables assessed by the WAPS in any meaningful way. Weiss (1978) also failed to find any relationship between value similarity and tenure. Analysis of the plots of tenure against the 13 variables did not reveal any obvious distribution or pattern, so the group was split at the median (seven years tenure). There was a marginally significant difference (p < .10) between the two groups on three of the WAPS variables, namely Co-workers, Security, and Detachment. The shorter tenure group had a higher mean scores on Co-workers and Detachment, indicating that this group attaches more importance to having friendly and understanding people to work with, as well as being able to keep work separate from their private lives. In contrast to this, longer tenured employees had a higher mean score on Security, indicating that this group is concerned with security of tenure. As has been mentioned in relation the differences between the organisational and comparison groups above, security of tenure is likely to be an issue especially for longer tenured employees. These long term employees are probably older, and therefore would have more difficulty in finding alternative employment should they leave (voluntarily or involuntarily) the organisation. Meglino et al. (1989) found that value congruence had a more pronounced effect on organisational

commitment for longer tenure as opposed to shorter tenure employees. Although organisational commitment was not assessed in the current study, security of tenure would appear to be conceptually related to this variable. It would be interesting to examine the relationship between the degree of commitment an individual feels to the organisation and the importance the employee attaches to security of tenure.

It would seem to follow logically that an individual who has not left the organisation, through voluntary or involuntary attrition, will be deemed to fit into the organisation. The results of the present study do not, however, support this hypothesis. The eight ratings of fit were added to give a TOTAL rating, and this score demonstrated no meaningful relationship to tenure. Dichotomising the group into long and short tenure groups (again divided at seven years) and carrying out an independent t-test failed to yield significant results. However, when the global or overall rating of fit was similarly split and a t-test carried out, there was a marginally significant result (t = -1.76, p < .10). The longer tenure group was rated as fitting in better than the shorter tenure group. These findings are ambiguous and the result for the overall rating is weak. The decision to divide the tenure scale at seven years is a possible explanation for this equivocal result. The organisation would not retain an unsuitable employee for up to seven years before terminating their employment. Turnover is more likely to occur in the first one or two years, and so it is not unreasonable to find little difference between these two tenure groups. It was not possible with the current

sample size, to divide the tenure groups at two years as this would have placed only four employees in the short tenure group.

There are highly significant correlations between several of the variables making up the fit scale, and the overall fit rating. For example allowing opportunities for people (OPPS) and overall fit in the organisation (FIT) correlate at 0.82, understanding the needs of people (NEEDS) and FIT at 0.74, and TEAM and FIT at 0.72 (see table 13). There are two possible reasons for this. Raters may not be using differential dimensions of judgement: that is, the halo effect accounts for the high correlations. Alternatively, one or two of the individual dimensions of the rating scale may account for a large part of the variance in the overall fit rating. A post hoc analysis was conducted to investigate these possibilities.

The results of a stepwise regression analysis showed that three of the eight variables, allows opportunities for people (OPPS), challenges the status quo (CHALL), and is dissatisfied with a merely adequate standard (ADEQ), accounted for 74% of the variance in the regression equation. As table 14 details, 52% of this variance is contributed by OPPS ($sr^2 = .52$). The high correlations among variables (table 12) and the large amount of variance accounted for by OPPS suggests that this is an important dimension of judgement for the raters. OPPS is a variable which describes the behaviour of employees in developing their co-workers or subordinates. Constructs which loaded on this variable in the content analysis described in chapter 5

included encouraging openness, taking an interest in people, and having respect for people. Thus, it seems that the raters are weighting this single variable very heavily in their judgments of employee fit. This conclusion is supported by the results of the subsequent investigative factor analysis.

Two very clear and well differentiated factors emerged in the factor analysis, confirming the post hoc hypothesis that limited dimensions of judgement were being utilised. OPPS, as discussed above, factored with NEEDS and TEAM. The content analysis described in chapter 5 found that TEAM or taking a team approach included such behaviours as being consultative, approachable, and inducing co-operation. The behaviours that described NEEDS or understanding the needs of people included seeing everyone as important, being trustworthy and open. As OPPS, NEEDS and TEAM formed a single factor in the factor analysis, the original all encompassing descriptor of "skills with people" would seem to be the most important dimension used in judgement of fit.

The organisation in the present study places a great deal of emphasis on its people, and so the results of the factor analysis are not surprising. The prevailing atmosphere in the organisation is one of friendliness and informal communication throughout the hierarchy. It follows that there is an accent on the importance of behaviours consonant with personal interaction skills.

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8.1 LIMITATIONS OF THIS STUDY

The findings of the present study offer marginal support for the findings of Jordan et al. (1991) and Bretz et al. (1989) indicating that the homogeneity hypothesis deserves further research. While the present study addresses some of the limitations of previous studies in that it is not laboratory based, the small number of subjects in both groups, and the lack of an available pool of applicants are its major limitations. The use of student subjects as the contrast group in the current study may also have biased the results. The fact that the students are all engaged in demanding advanced study in addition to their usual employment indicates that they are probably a highly motivated and achievement oriented group. The use of the comparison group in the present study has applied an even more stringent test of the hypothesis. Moreover, this group of people is likely, by virtue of their wide range of occupations and backgrounds, to be very diverse, resulting in a large variance within the group. This has made it more difficult to obtain a significant result. An ideal design to test the homogeneity hypothesis would include both a larger organisational sample and larger comparison group, preferably a pool of applicants to that organisation. The larger sample size would also allow more meaningful comparisons across tenure for testing the attrition component of the ASA model.

To avoid the problems associated with inter-rater reliability when ratings are made on the Organisational Fit Scale, it would be preferable to have one or more raters assess all employees. In the current study this was not a practical consideration as the reporting relationships of the organisational structure mean that one rater does not have adequate knowledge of all the employees to be rated.

Finally, a cross sectional analysis such as this cannot substitute for longitudinal research in which more meaningful assessments of fit can be made over time.

8.2 CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

Assessment of person-organisation fit in the current study is equivocal. The ambiguity of the results indicates that no firm conclusions can be drawn on the basis of the current findings. However, it does seem that the individuals who make the judgments use only a limited number of separate dimensions in their assessments, and their judgments may be subject to a certain amount of halo effect, a problem frequently encountered in such situations. In the present study this may be idiosyncratic to the organisation, and further research incorporating a variety of organisations would be required to substantiate the current findings.

There is no substitute for longitudinal studies in examining the effect of tenure. Future research assessing fit would benefit from measures being taken over time. The effects of workplace socialisation would be more evident, and even longer term follow up would test the attrition component of the ASA model more adequately.

The current study has found some marginal support for Schneider's ASA theory. People seem to be differentially attracted to organisations according to their perceptions of that organisation. There is scope for further research investigating this relationship, and the repertory grid would be an excellent tool to carry out this analysis. The current study has disclosed the repertory grid interview as an effective means of identifying the characteristics that an organisation values in its staff. There has always been a problem in measuring organisational characteristics in terms commensurate with individual characteristics, and the repertory grid offers a technique that can be used to elicit both organisational and personal constructs.

The current study has highlighted another advantage to be gained in the use of the repertory grid. The technique proved to be useful in teasing out the facets of a global construct. Although, in the final analysis, skills with people did prove to be a single dimension, this study has demonstrated that the technique is a versatile and effective tool when used in organisational research. It enables the researcher to fully explore the meanings which organisational members attribute to a global dimensions of judgement.

REFERENCES

Allport, G. (1966). Traits revisited. American Psychologist, 21, 1-10.

Anastasi, A. (1988). Psychological testing. (6th ed.). New York: Macmillan.

Bandura, A. (1971). <u>Social Learning Theory.</u> Morristown, N.J.: General Learning Press.

Bannister, D. & Fransella, F. (1986). <u>Inquiring man: The psychology of</u> personal constructs. (3rd ed.). London: Croon Helm.

- Bannister, D. & Mair, J.M.M. (1968). <u>The psychology of personal</u> <u>constructs.</u> London: Academic Press.
- Bell, R.C. (1987). <u>G-Pack: version 3.0, Repertory Grid Program Package.</u> Department of Psychology, University of Melbourne, Australia: Psychstat.
- Bell, R.C. (1988). Theory appropriate analysis of repertory grid data. International Journal of Personal Construct Theory, 1, 101-118.
- Betz, M., & Judkins, B. (1975). The impact of voluntary association characteristics on selective attraction and socialization. <u>The</u> <u>Sociological Quarterly</u>, 16, 228-248.
- Bretz, R.D., Jr., Ash, R.A., & Dreher, G.F. (1989). Do the people make the place? An examination of the Attraction-Selection-Attrition hypothesis. Personnel Psychology, 42, 561-581.
- Brook, J.A. (1986). How to assess management training. In R.J. Brook, G.C. Arnold, T.H. Hassard, & R.M. Pringle (Eds.), <u>The Fascination of</u> <u>Statistics.</u> (pp. 89-102). Marcel Dekker Inc.: New York.

- Chatman, J.A. (1989). Improving interactional organizational research: A model of person-organization fit. <u>Academy of Management Review</u>, <u>14</u>, 333-349.
- Dawis, R.V., & Lofquist, L.H. (1984). <u>A psychological theory of work</u> <u>adjustment.</u> Minneapolis: University of Minnesota Press.
- Deal, T.E., & Kennedy, A.A. (1982). <u>Corporate cultures.</u> Reading MA.: Addison-Wesley.
- Deiner, E., Larsen, R., & Emmons, R. (1984). Person X situation interactions: Choice of situations and congruence response models. Journal of Personality and Social Psychology, 47, 580-592.
- Easterby-Smith, M. (1980). How to use repertory grids in HRD. Journal of European Industrial Training, 4, 1-32.
- Edwards, J.R., & Cooper, C.L. (1990). The person-environment fit approach to stress: Recurring problems and some suggested solutions. <u>Journal</u> <u>of Organizational Behavior</u>, 10, 293-307.
- Fiedler, F. (1976). The leadership game: Matching the man to the situation. Organizational Dynamics, 4, 6-16.
- Greenhaus, J.H., Seidel, C., & Marinis, M. (1983). The impact of expectations and values on job attitudes. <u>Organizational Behavior and</u> <u>Human Performance, 31, 394-417.</u>

Gorsuch, R.L. (1983). Factor Analysis. Hillsdale. N.J.: Erlbaum.

Hackman, J.R., & Oldham, G.R. (1980). Work redesign. Reading Ma.: Addison-Wesley.

Holland, J.L. (1973). <u>Making vocational choices; a theory of careers.</u> Englewood Cliffs. N.J.: Prentice-Hall.

- Holland, J.L. (1985). <u>Making vocational choices: A theory of vocational</u> <u>personalities and work environments.</u> (2nd ed.). Englewood Cliffs, N.J.: Prentice-Hall.
- Honey, P. (1979). The repertory grid in action. <u>Industrial and Commercial</u> <u>Training</u>, 11, 452-459.
- Jordan, M., Herriot, P. & Chalmers, C. (1991). Testing Schneider's ASA theory. <u>Applied Psychology: An International Review</u>, 40, 47-53.
- Kelly, G.A. (1955). <u>The psychology of personal constructs.</u> New York: W.W. Norton.
- Kinicki, A.J., & Lockwood, C.A. (1985). The interview process: An examination of factors recruiters use in evaluating job applications. Journal of Vocational Behaviour, 26, 117-125.
- Komorita, S.S., & Graham, W.K. (1965). Number and scale points and the reliability of scales. <u>Educational and Psychological Measurement</u>, 25, 987-995.
- Landfield, A.W. (1988). Personal science and the concept of validation. International Journal of Personal Construct Psychology, 1, 237-249.
- Landfield, A.W. & Epting, F.R. (1987). <u>Personal Construct Psychology.</u> <u>Clinical and Personality Assessment.</u> New York: Human Sciences Press.
- Matell, M.S. & Jacoby, J. (1971). Is there an optimal number of alternatives for Likert scale items? Study 1: Reliability and validity. <u>Educational</u> <u>and Psychological Measurement</u>, 31, 657-674.
- McCormack, H.M., Horne, D.J.de L., & Sheather, S. (1988). Clinical applications of visual analogue scales: a critical review. <u>Psychological Medicine, 18,</u> 1007-1019.

- Meglino, B.M., Ravlin, E.C., & Adkins, C.L. (1989). A work values approach to corporate culture: a field test of the value congruence process and its relationship to individual outcomes. Journal of Applied Psychology, 74, 424-432.
- Meglino, B.M., Ravlin, E.C., & Adkins, C.L. (1991). Value congruence and satisfaction with a leader: An examination of the role of interaction. <u>Human Relations, 44,</u> 481-495.

Mischel, W. (1968). Personality and assessment. New York: Wiley.

- Norman, D.A. (1976). <u>Memory and attention: An introduction to human</u> information processing. (2nd ed.). New York: Wiley.
- Peters, T.J., & Waterman, R.H., (1982). In search of excellence. New York: Harper and Row.
- Porter, J. (1985). A construct approach to management and motivation. Constructs, 3, 1-2.
- Posner, B.Z., Kouzes, J.M., & Schmidt, W.H. (1985). Shared values make a difference: An empirical test of corporate culture. <u>Human Resources</u> <u>Management, 24, 293-309</u>.
- Pryor, R.G.L. (1979). In search of a concept: Work values. <u>The Vocational</u> <u>Guidance Quarterly, 27, 250-258</u>.
- Pryor, R.G.L. (1983). <u>Manual: Work Aspect Preference scale.</u> Hawthorn, Vic.: ACER.
- Pryor, R.G.L. (1990). The use of the Work Aspect Preference Scale (WAPS) in employee selection. <u>ACER Psychological Test Bulletin, 3</u>, 18-23.
- Rice, R.W., McFarlin, D.B., & Bennett, D.E. (1989). Standards of comparison and job satisfaction. <u>Journal of Applied Psychology</u>, 74, 591-598.

- Robertson, I.T., & Makin, P.J. (1986). Management selection in Britain: a survey and critique. Journal of Occupational Psychology, 59, 45-57.
- Rynes, S. & Gerhart, B. (1990). Interviewer assessments of applicant "fit": An exploratory investigation. <u>Personnel Psychology</u>, 43, 13-35.
- Salancik, G., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. <u>Administrative Science Quarterly</u>, <u>23</u>, 224-253.
- Schein, E.H. (1988). Organisational leadership and culture. San Francisco: Jossey-Bass.
- Schneider, B. (1983). Interactional psychology and organisational behaviour. Research in Organisational Behaviour, 5, 1-31.
- Schneider, B. (1987). The people make the place. <u>Personnel Psychology,40</u>, 437-453.
- Slater, P. (1964). <u>The principal components of a repertory grid.</u> London: Vincent Andrew.
- Slater, P. (1977). <u>The reliability and significance of a grid. The measurement</u> of intrapersonal space. Vol. 2: Dimensions of intrapersonal space. London: Wiley.
- Smith, M., & Ashton, D. (1975). Using repertory grid technique to evaluate management training. <u>Personnel Review</u>, 4, 15-21.
- Staw, B.M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. <u>Journal of Applied</u> <u>Psychology</u>, 70, 469-480.
- Stewart, V. & Stewart, A. (1981). <u>Business applications of the repertory</u> grid. London: McGraw-Hill.
- Super, D.E. (1953). A theory of vocational development. <u>American</u> <u>Psychologist</u>, 8, 185-190.

- Super, D.E. (1970). <u>Manual: Work Values Inventory.</u> Boston: Houghton Mifflin.
- Tabachnik, B.G., & Fidell, L.S. (1989). <u>Using multivariate statistics.</u> (2nd ed.). New York: Harper & Row.
- Tom, V. (1971). The role of personality and organizational images in the recruiting process. <u>Organizational Behavior and Human Performance</u>, <u>6</u>, 573-592.
- Vroom, V.H. (1966) Organizational choice: a study of pre and post decision processes. <u>Organizational Behavior and Human Performance</u>, 1, 212-225.
- Weiss, H.M. (1978). Social learning of work values on organizations. Journal of Applied Psychology, 63, 711-718.

Sec. 1

Weiss, H.M., & Adler, S. (1984). Personality and organizational behavior. In B.M. Staw & L.L. Cummings (Eds.), <u>Research in Organizational</u> <u>Behavior.</u> (Vol. 6, pp. 711-718). Greenwich, Ct.: JAI Press.

Introduction

Different people are attracted to different aspects of work. This scale lists some of the aspects of work that people consider important. You have to consider which of these aspects of work you prefer. When doing this scale, it does not matter whether you are working or not; just have to indicate your personal preference.

Each of the aspects of work presented can be rated in the following way:

I means Totally unimportant - this work aspect doesn't matter to me at all and/or I wouldn't care if a job had this quality or not.

2 means Of little importance - this work aspect is not very important to me and/or I would like a job only a little more if it had this que

3 means Moderately Important - this work aspect is reasonably important to me and/or I would prefer a job with this quality.

4 means Quite Important - this work aspect is very desirable to me and/or I would look for a job with this quality.

5 means Extremely important - this work aspect is essential to me and/or a job must have this quality for me to be happy with it.

Rate each work aspect by marking the box to underline the number, which stands for your attitude to that aspect, on the separate Answer SI:

Example

Work in which you . . .

... gain rapid promotions ...

There are no right or wrong answers to any of the items, so just indicate what you think of each aspect.

Judge each work aspect by itself. Do not compare one answer with others you have already made.

Work as quickly and carefully as you can. Do not spend too much time thinking about any one item. A little thought each time should be suffici Do not leave out any items.

If you make a mistake or if you change your mind about an answer, rub it out thoroughly and mark the new number space on the Answer Sh Your answers must be put down the columns on your Answer Sheet.

Pa:

Work Aspect Preference Scale

Work in which you	
1 can work as fast or slowly as you like	14 get to know your fellow workers quite well
2 have pleasant people to work with	15 add to the abilities you already have
3 improve the skills you have	16 can do your own work in your own way
4 are paid a high salary	17 originate new ideas and/or products
5 design new things	18 . receive more than your normal pay for good wo
6 know that other people think your work is important	19 do not have to change the way you live
7are free to live wherever you like	20 get a good reputation for your good work
8 are certain of keeping your job	21 , give aid to those in need
9 . help build a better society	22 can be sure you will always have a job
10 are not required to do work in your spare time	23 set goals for workers to reach
11. plan and arrange the work of others	24 can forget the work while you are not there doing it
12 do your job in a safe workplace	25 do not have to spend all of your time behind a desk .
13 work hard physically	26 do your job in a physically attractive environment

Go on to the next p:

P	P	PE	ND	(A

Vork	in which you AFFENDIX 7
7	are always increasing your knowledge
8	can start and finish your work when you like
9.	are really liked by your fellow workers
0	become quite wealthy .
1	experiment with different ways of doing things
2	are looked up to by other people in society
3.	are not expected to move wherever the organization wants to put you
4	are certain your job will last
5	help others live a fuller life
5	do not have to think about work once you leave the workplace
1	have authority over others
3	can work in a pleasant area of the town or countryside
,	are not just sitting down all day

40 determine the way your own work is done... 41 enjoy the company of the people you work with 42 can acquire specialized skills 43 ... use ideas, materials to develop new ideas, materials ... 44 receive enough pay to live well 45 do not have to change where you live to gain promotion 46 can obtain a high status in the eyes of others 47 make an important contribution to the community..... 48 have a secure future ... 49 set out the best way for others to do a job 50 are not expected to take work home 51 are physically active 52 have a workplace that is clean and tidy...... Check your Answer Sheet to make sure you have not left out any answers.

OUESTION BOOKLET

WORK ASPECT PREFERENCE SCALE

ROBERT PRYOR

Central Planning and Research Unit New South Wales Department of Industrial Relations

Australian Council for Educational Research Copyright © ACER, 1983

ISBN 0 85563 463 4 (Scale) ISBN 0 85563 467 7 (Specimen Set) Put all your answers on the ANSWER SHEET. Do NOT write on this booklet.

91

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APPENDIX C

ORGANISATION FIT SCALE

Please	evaluate	
by plac	cing a mark along the scale beneath each question.	
1.	Does this person allow opportunities for development in the peop	le they work with?
	rarely	always
2.	Does this person understand the needs of people?	
	rarely	always
3.	Does this person adopt a team approach in their work?	
	rarely	always
4.	Does this person think creatively?	
	rarely	always
5.	Does this person challenge the status quo?	
	rarely	always
6.	Does this person show enthusiasm?	а 1971 ж. ж.
	rarely	always
7.	Does this person express dissatisfaction with "adequacy"?	
	rarely	always
8.	Does this person demonstrate above average intelligence?	÷
	rarely	always
Now, r	please give this person an overall rating for how well they fit into the	he organistion.

Massey University Palmerston North

In completing the thesis for my Masters degree, I am carrying out some research into the concept of organisational fit. Organisational fit can be most simply described as the match between a company and the people it employs.

Part of this research requires me to look at the attitudes people have to various aspects of their work. It is with this in mind that I ask you to complete the following questionnaire - the Work Aspect Preference Scale. The questionnaire is quite simple to fill out, and should not take very long - about ten to fifteen minutes. Please try to answer the questions as accurately as possible. There are no right or wrong answers.

The code number at the top of the page allows for anonymous scoring of the questionnaire. Your name and address are required so that I may clarify any points, if necessary, and also so that I can send you a summary of the results of the study. A personal profile will also be sent to you, when the analysis is completed. Group results <u>only</u> will be used in any publication of the study. I would like to stress that the individual information I gather from you is <u>confidential to me</u>, and is to be used for research purposes only.

The Massey University Code of Ethical Conduct requires that I have your consent to participate in this study. If, for any reason, you do not wish to be a part of this study, then I would ask you to simply return all of the enclosed sheets to me, in the envelope provide. If you are willing to be a part of this study, then please complete the questionnaire, and return this form, the questionnaire, and your answer sheet in the envelope provided.

Thank you for your co-operation.

Bev Marshall Graduate Student Massey University

Research supervised by Dr Judy Brook of Massey University.

APPENDIX D

CODE:....

LAST NAME:	
FIRST NAMES:	••••••
ADDRESS:	• • • •
• • • • • • • • • • • • • • • • • • • •	• • •
а) (а)	
AGE:	
SEX:	
POSITION HELD	
HOW LONG HAVE YOU WORKED AT	?

Practice example:

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11	-		٠

	1	means		Totally unimportant	
	2	means		Of little importance	
1	3	means		Moderately important	
	4	means		Quite important	
	5	means		Extremely important	

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	25 1 2 3 4 5		51 4 5
		39 1 2 3 4 5	52 4 2 3 4 5