



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Research Commons

<http://waikato.researchgateway.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

**PROTEAN AND BOUNDARYLESS CAREER ATTITUDES IN NEW
ZEALAND WORKERS**

A thesis
submitted in fulfilment
of the requirements for the degree
of
Master of Social Sciences
at
The University of Waikato
by
HEATHER REBECCA MORRELL

The University of Waikato

2010

Abstract

This study explored protean and boundaryless career attitudes in a sample of New Zealand workers. Recent changes to both organisational and societal structures have significantly altered how careers are acted out. Employees are now required to be flexible and adaptable, and can no longer rely on organisations to manage their career development. Individuals have had to become more open to networking and collaboration across organisational boundaries, and to working for multiple employers. These changes have resulted in two key career models emerging in the research – the protean career and the boundaryless career. The protean career is conceptualised as involving a self-directed approach to career management combined with a values-driven approach to career management. The boundaryless career is conceptualised as involving both a boundaryless mindset, i.e. wanting to work across organisational boundaries, and a mobility preference, i.e. the desire to work for more than one employer.

The purpose of this study was to investigate how demographic and personality variables relate to protean and boundaryless career attitudes in New Zealand workers. Measures of the protean career attitude and the boundaryless career attitude were included in a survey, along with demographic variables, personality variables and career variables. The survey was sent to 1300 New Zealand workers via four organisations and 226 completed responses were received. Overall, demographic variables were found to relate less strongly to protean and boundaryless career attitudes than was expected. Education level was found to be the most predictive demographic variable, while age and gender were related only to one of the protean career attitudes. Overall, proactive personality was found to be the strongest predictor of three out of the four career attitudes. Supplementary analyses found that individuals on a casual employment contract had higher levels of one of the boundaryless career attitudes (boundaryless mindset) than those on a permanent contract, and there were some differences between employment sector groups on one of the boundaryless career attitudes (boundaryless mindset) and one of the protean career attitudes (self-directed career management). Values-driven career management was negatively correlated with employer, occupational and geographic mobility, and no other relationships were found between any of the career attitudes and mobility.

This research has significantly added to our understanding of protean and boundaryless career attitudes in the New Zealand context. The findings highlight that protean and boundaryless careers are made up of separate but related constructs that are associated with demographic and personality variables in distinct ways. In particular, this study has shown that while differences between genders have been assumed to exist, such differences do not necessarily occur. Furthermore, individuals with higher levels of education were shown to be more likely to hold certain protean and boundaryless career attitudes. This study highlighted that mobility is not synonymous with protean and boundaryless careers as has been previously assumed in the literature. It has addressed a number of key areas that were highlighted as needing further research, such as potential gender differences in career attitudes, and it has also opened up several areas for future exploration.

Acknowledgements

Firstly I would like to thank my supervisors, Dr Donald Cable and Professor Michael O'Driscoll. Your continual support has been vital to this journey. I particularly appreciate your flexibility around supervising me while I worked off campus. You both went out of your way to adapt to a different kind of supervision and this really helped to create a smooth and straightforward process. Thank you for responding to this challenge with such ease. I would also like to thank you both for your un-wavering faith in me and my abilities to carry out this project.

Secondly I would like to acknowledge all of those who sent my survey out on behalf of their organisation. I was overwhelmed with the level of interest in my topic and greatly appreciate all the help I received. Each organisation was a pleasure to deal with, and their involvement allowed me to reach my goals of producing a representative sample of New Zealand workers. Thank you. Thirdly I would like to thank both the University of Waikato and the Building Research Capability in the Social Sciences (BRCSS) network for their support and funding. This has greatly helped me to focus and commit to my thesis.

Finally I would like to thank all of those who supported me during this year. To my fellow students, I have really appreciated being able to turn to you. Discussing our projects, throwing ideas around, and being there for each other really helped to keep me on track. I would in particular like to thank Kara and Joseph Cockroft who I stayed with each time I visited Hamilton. You have both been incredibly warm and welcoming and I cannot thank you enough. Not only has it been lovely staying with you, but it has made studying from Wellington possible, and my trips to Hamilton enjoyable. To my other friends and family, thank you for listening, for being there, and for supporting me. Your reminders on why I set out on this journey have helped to keep me going.

Table of Contents

	Page
Abstract	ii
Acknowledgements	iv
Table of Contents	v
List of Tables	vii
List of Figures	viii
Chapter One – Introduction	1
Models of Career	1
The traditional career model	1
The protean career	5
The boundaryless career	7
Empirical Research	11
Clarification of Protean and Boundaryless Careers	24
Further Research	28
Research Questions and Aims	35
Chapter Two – Method	45
Participants	45
Procedure	47
Measures	48
Protean career	48
Boundaryless career	50
Proactive personality	51
Openness to experience	52
Career stage	52
Other items	53
Analysis	54
Missing data imputation	54
Chapter Three – Results	55
Descriptives	55
Correlations	56
Hypothesis Testing	58
Gender differences	58
Age differences	58

Education level differences	58
Proactive personality	59
Openness to experience	59
Inter-organisational mobility	59
Multiple Regression	60
Self-directed career management	60
Values-driven career management	60
Boundaryless mindset	61
Organisational mobility preference	62
Supplementary Analyses	62
Employment contract	63
Employment sector	63
Chapter Four – Discussion	64
Overview of Findings	64
Measures	64
Hypotheses	65
Demographic variables	65
Personality variables	70
Overall prediction	72
Career path variables	74
Supplementary findings	74
Implications	77
Future Research	81
Strengths	85
Limitations	86
Conclusions	88
References	90
Appendices	98
Appendix A – Letter	98
Appendix B – Email	100
Appendix C - Information Sheet	101
Appendix D – Survey	103
Appendix E – Scree Plots	114
Appendix F – Factor Loadings	117

List of Tables

Table	Page
Table 1.1 Comparison of Traditional and Protean Careers	6
Table 1.2 Comparison of Traditional and Boundaryless Careers	8
Table 1.3 Competency Profiles of Boundaryless vs. Bounded Careers	10
Table 1.4 Criteria for Defining Boundaried vs. Boundaryless Careers	20
Table 1.5 Two Dimensions of Boundaryless Careers	25
Table 2.1 Demographics	46
Table 2.2 Employment Sector and Employment Contract Frequencies and Percentages	47
Table 3.1 Descriptive Statistics	55
Table 3.2 Correlations	57
Table 3.3 Regression Coefficients for Self-Directed Career Management	60
Table 3.4 Regression Coefficients for Values-Driven Career Management	61
Table 3.5 Regression Coefficients for Boundaryless Mindset	61
Table 3.6 Regression Coefficients for Organisational Mobility Preference	62
Table F.1 Protean Career Attitude Scale Factor Loadings	117
Table F.2 Boundaryless Career Attitude Scale Factor Loadings	118
Table F.3 Proactive Personality Scale Factor Loadings	119
Table F.4 Openness to Experience Scale Factor Loadings	120
Table F.5 ACCI-Short Form Factor Loadings	120

List of Figures

Figure	Page
Figure E.1 Scree Plot for Protean Career Attitude Scale	114
Figure E.2 Scree Plot for Boundaryless Career Attitude Scale	114
Figure E.3 Scree Plot for Proactive Personality Scale	115
Figure E.4 Scree Plot for Openness to Experience Scale	115
Figure E.5 Scree Plot for ACCI-Short Form	116

Chapter One – Introduction

How the term ‘career’ is defined depends upon the discipline from which it is studied. A career has been considered from a variety of perspectives in the social sciences, leading to a very diverse and broad background of career theory (Arthur, Hall, & Lawrence, 1989a). For example, Arthur Hall and Lawrence (1989b) discuss the career from a trait-factor approach, a sociological approach, a life course development approach and more. From a behavioural science perspective careers have most often been seen either in terms of a lifelong sequence of jobs – meaning that all people who work have a career – or as a lifelong sequence of experiences related to a role – which encompasses the subjective experiences a person has in relation to their career, providing a broader perspective (Hall, 1976).

Hall (1976, p. 4) defined a career as “the individually perceived sequence of attitudes and behaviours associated with work-related experiences and activities over the span of a person’s life” a definition which has been adopted in this study. This definition is based on four themes of the career that were emphasised in the 1970’s through work conducted at Massachusetts Institute of Technology. These themes involved including all workers in the definition of career, recognising that time is a key mediator of employment relationships, recognising that the career should be a focus for interdisciplinary study, and recognising that the career should be viewed from both an objective and a subjective perspective (Arthur & Rousseau, 1996). This definition therefore reflects broader and more modern perspectives on the career, particularly through its acknowledgement that a career encompasses not only the jobs that one holds but also individual perceptions and experiences. This is particularly relevant to this research which focused on the attitudes that individuals hold towards their careers, a notion that would not have been relevant to earlier, less broad, definitions of career.

Models of career

The traditional career model. In the 1950’s and 1960’s the dominant model of career - the traditional or organisational career - involved a linear, upward career path within one organisation (Sullivan & Baruch, 2009). This career model evolved from the 19th century when the predominantly agricultural work environment shifted to a predominantly industrial work environment (Arthur, Inkson, & Pringle, 1999). This change brought in the factory, a permanent and centralised work structure with tight work controls, a pattern which was replicated

in the military, government and the church (Arthur et al., 1999). This new structure led to a bureaucratic business environment where people developed company-specific knowledge and expertise, and in which careers were defined by the hierarchical nature of organisations and their control over employees' advancement. After both the Great Depression and World War II companies were eager to reinforce the image of stable company employment and built themselves up as large, stable and hierarchical employers in which their employees aimed to be loyal and advance within their company (Arthur et al., 1999). As companies grew, more and more jobs were created, and a vertical specialisation of labour resulted, leading to steep hierarchies in which functions were well-defined and departments were strictly separated (Howard, 1995a).

In such companies the traditional model of career occurred through a series of stages, defined in a number of ways by different researchers. Fletcher (1996) suggested that despite the different stages proposed, each model of the traditional career had the same overall themes within it. In the first stage of a traditional career individuals were socialised and proved their standing; in the next stage they became a full member and gained personal power and influence, which was followed by late career experiences where people passed on their acquired knowledge and expertise to the new generations. The final stage involved decline, where work gradually played a less important role in peoples' lives (Fletcher, 1996). One theory gained particular emphasis in the research – that developed by Donald Super (1980). According to Super (1980), there are four major stages of a person's career – exploration, establishment, maintenance and disengagement. Each stage is made up of three sub-stages: crystallising, specifying and implementing make up the exploration stage; stabilizing, consolidating and advancing make up the establishment stage; holding, updating and innovating make up the maintenance stage and decelerating, retirement planning and retirement living make up the disengagement stage (Super, 1980).

The goal of this traditional career was to achieve objective career success through promotion and salary – extrinsic rewards that reflected one's loyalty to an organisation. In return for such loyalty companies offered their employees job security, a notion that was highly valued in a society where men were seen as the bread-winners for their families (Sullivan & Baruch, 2009). According to Hall and associates (1996) this notion of career grew to its high point in the 1980's when

resource limitations meant people were more concerned with keeping their jobs by meeting organisational expectations than with developing their own careers. People were highly committed to their organisation and held long term expectations for their role in the company, as well as feeling a strong emotional attachment to, and identification with, their organisation (Howard, 1995a).

However, as noted by Arthur and Rousseau (1996), from about 1984 onwards significant changes occurred in the workplace. Small European firms began creating networks across firms and becoming more flexible in their specialties, and the Silicon Valley in California succeeded through employment mobility and new firm growth. Such changes created an awareness, particularly in America, that large expanding firms had difficulty maintaining the innovation and flexibility necessary to keep up with technological change (Arthur & Rousseau, 1996). Mirvis and Hall (1996) argued that in order to sustain a competitive advantage in a business environment that had become characterized by rapid technological change, firms needed to be free and consist of autonomous components that could respond to situations; fast and be able to respond quickly to problems and opportunities in the market; and malleable and able to change routines and practices in response to the changing environment. Arthur, Inkson and Pringle stated that “if the byword of the Industrial State era was planning, its equivalent in the new era is flexibility. It is a word that turns conventional career thinking on its head” (1999, p. 9).

This need for flexibility led to major changes in the workplace, including restructuring, downsizing, outsourcing and new forms of organisations (Parker & Inkson, 1999). To create more flexibility, organisations began to think of their workforce as including three types of workers, conceptualised by Handy (as cited in Mirvis & Hall, 1996) as a shamrock with three leaves. The first leaf contained core staff including managers, professionals and technicians who were highly skilled and had a sense of commitment to the organisation. The second leaf contained contractors, specialised people and firms that were outside of the organisation and conducted a range of tasks including distribution and supply (Mirvis & Hall, 1996). The work conducted by the second leaf could be done more efficiently by people who were not within the core staff of the firm. Finally the third leaf consisted of contingent workers who provided part time or temporary support to the company (Mirvis & Hall, 1996). In addition to this, in

the 1990's organisations began to offer more flexible working hours, as well as the possibility of working from places other than where the company was based. The combination of these factors led to the creation of a much more flexible organisation and in response to this, workers were also expected to become more flexible. Frequent job rotations, assignments that were to be completed within a short period of time, lateral job changes and the necessity to be able to shift within the leaves of a company's workforce required individuals to continuously learn and upgrade their skills (Mirvis & Hall, 1996). As Howard (1995a) suggested, skills and knowledge had become subject to continual change and obsolescence, and due to the rate of change within jobs it had become more practical and efficient to have flexible workers who could achieve multiple tasks and jobs when necessary, rather than highly specialised workers.

According to Chay and Aryee (1999) this led to a change to the psychological contract that employees held. Rousseau defined the psychological contract as "an individual's beliefs regarding reciprocal obligations" (Rousseau, 1990, p. 390). These beliefs were said to form a contract when individuals felt they owed certain obligations, such as loyalty, in return for certain inducements, such as pay. Two types of psychological contracts have been found in the research. Firstly, the transactional psychological contract involves specific exchanges between parties over a specific time period, e.g. competitive wages without any long-term commitment. Secondly, relational contracts are open-ended agreements involving the establishment of a long-term relationship with both monetary and non-monetary exchanges taking place (Rousseau, 1990). Chay and Aryee (1999) argued that the changing work environment had led the employment relationship to be increasingly defined by transactional rather than relational psychological contracts.

Hall and associates (1996) also discussed changes to the career contract and suggested that changes within the workplace, as well as to family and societal structures such as more women entering the full time workforce, had led organisations to look for new ways to manage their employees as well as individuals choosing to take a more proactive and independent approach to career management. Hall et al argued that this had led to a new type of career contract in which the employee offered good performance in response to customer needs, as well as the ability to adapt and develop new competencies in response to changes

in the environment (Hall & Associates, 1996). In return the employer offered opportunities for development and personal fulfilment, continuous learning, and rewards that reflected their employees' ability to adapt and grow in response to demands (Hall & Associates, 1996). In light of these changes to both the workplace and society several new career perspectives emerged in the research. Such perspectives included portfolio work (Cohen & Mallon, 1999), the post-corporate career (Peiperl & Baruch, 1997) the careerist (Feldman & Weitz, 1991), the boundaryless career (Arthur & Rousseau, 1996) and the protean career (Hall, 1976). The protean career and the boundaryless career were the focus of this research and are discussed in further detail below.

The protean career. The term 'protean career' is derived from the Greek god Proteus who changed shape when and how he wanted, and was initially described by Hall in 1976 as

a process which the person, not the organisation, is managing. It consists of all the person's varied experiences in education, training, work in several organizations, changes in occupational field and so forth. The protean career is *not* what happens to the person in any one organization. The protean person's own personal career choices and search for self-fulfilment are the unifying or integrative elements in his or her life. The criterion of success is internal (psychological success), not external (Hall, 1976, p. 201).

According to Hall (1976), in the protean career performance is defined by the individual's own standards rather than those of the organisation. An individual's attitudes are more important in making career choices than they were in the traditional career, and identity and adaptability are more prominent. Table 1.1, adapted from Hall (1976, p. 202) outlines the key differences between the traditional career and the protean career:

Table 1.1

Comparison of Traditional and Protean Careers

Issue	Protean Career	Traditional career
Who's in charge?	Person	Organisation
Core values	Freedom; Growth	Advancement; Power
Degree of mobility	High	Lower
Important performance dimensions	Psychological success	Position level; Salary
Important attitude dimensions	Work satisfaction; professional commitment	Work satisfaction; Organisational commitment
Important identity dimensions	Do I respect myself? (self-esteem) What do I want to do? (self-awareness)	Am I respected in this organisation? (esteem from others) What should I do? (organisational awareness)
Important adaptability dimensions	Work-related flexibility Current competence (measure: marketability)	Organisation-related flexibility (measure: organisational survival)

Hall and Associates (1996) suggested that upheaval and uncertainty in the recent work environment had led individuals to internalise their measures of career success because external measures such as promotion and salary increases were less readily available. Hall, Briscoe and Kraum (1997) expanded and stated that a shift had occurred, from focussing on the jobs that people hold, to the perceptions that people hold about such jobs. It had become important to be able to learn and adapt quickly and continuously, leading the motivations at work to shift from meeting the expectations of one's employer to finding personal growth and meaning in one's career (Hall & Associates, 1996). Hall and Mirvis (1995) suggested that this would lead to an emphasis on "learning how" to adapt to new situations, with varied experience, networking across boundaries and development and education becoming important to workers and their employability. Hall (1996) suggested that these changes would ultimately lead to a shift from a path to the top, i.e. the desire to advance in a company, to a path 'with a heart', i.e. succeeding in one's own values and goals.

Identity, i.e. gaining self-awareness and the ability to self-manage, and adaptability, i.e. being open to and able to cope with change, were described as

the most important competencies for a successful protean career. The skills required for identity and adaptability involve learning how to learn, and were described as meta-skills (Hall & Mirvis, 1995). The need for such meta-skills combined with the amount of variety available in the work world were thought to lead people to go through several career cycles throughout their career life, with the stages of exploration-trial-mastery-exit re-starting as a person enters a new career and learning domain. In these cycles of continuous learning a person's career age, i.e. their age within their current career cycle, is important rather than chronological age (Hall, 1996).

Hall (2002) argued that because the life cycles of products and technologies had become so much shorter than in previous decades, individuals' cycles of personal mastery also had to shorten. This created a career in which people experience a succession of mini-stages, each of which may involve a move to a different organisation, product area, role or technology (Hall, 2002). In this way, during a career a person not only moves vertically, as in the traditional career path model, but also moves laterally, thus expanding their range of competencies. The goal of this lateral movement is learning, psychological success, and development of one's identity (Hall, 2002). This development does not necessarily involve formal training and education programs but more simply involves work challenges and networks (Hall, 1996).

Hall and Mirvis (1996) described the protean career as offering individuals significantly more flexibility within their careers. However, they noted that considerable disadvantages may go hand in hand with such flexibility. For example, individuals already midway through a career may not want the pressure of needing to be flexible and adaptable, especially when it may involve a shift from having their identity tied to an organisation to being solely responsible for their identity, as well as having to develop new skills (Hall & Mirvis, 1996). Furthermore the decentralised organisational structures require that employees develop ways to adapt, learn and take the initiative to develop their own identities and their own paths. This is not an easy task, and Hall and Mirvis (1996) suggested that this may in fact be beyond the cognitive capabilities of many people.

The boundaryless career. As discussion in the research about the protean career began to grow, so too did discussion around a similarly new concept – the

boundaryless career. Arthur (1994) first discussed the boundaryless career as the opposite of the organisational career, and described it as being characterised by independence from the traditional principles of an organisational career (i.e. careers that occur in one organisation). Arthur went on to expand this by discussing the six different ways in which the boundaryless career was demonstrated. Firstly, the boundaryless career involves movement across employers. Secondly, it involves marketing one's career outside of one's current organisation. Thirdly, it can involve career maintenance through relationships and networks beyond the current organisation. Fourthly, the boundaryless career can involve breaking the traditional principles of career advancement and hierarchy. Fifth, it can include the rejection of career opportunities for personal or family reasons, and sixth, the person may perceive a boundaryless future in their career, despite situational constraints (Arthur, 1994). As evidence for the boundaryless career, Arthur pointed to the fact that median employment tenure for all workers in the U.S. was 4.5 years, and in Japan, a country used as an example of lifetime employment, the median employment tenure for workers was only eight years. Arthur suggested this was an indication that the idea of traditional careers that develop within one organisation was outdated, and that individuals even in Japan now exhibit career mobility and boundarylessness.

Sullivan (1999, p. 458) summarised the key differences between a boundaryless career and a traditional career as adapted in Table 1.2.

Table 1.2

Comparison of Traditional and Boundaryless Careers

	Traditional	Boundaryless
Employment relationship:	Job security for loyalty	Employability for performance and flexibility
Boundaries:	One or two firms	Multiple firms
Skills:	Firm specific	Transferrable
Success measured by:	Pay, promotion, status	Psychologically meaningful work
Responsibility for career management	Organisation	Individual
Training:	Formal programmes	On the job
Milestones	Age-related	Learning-related

The boundaryless career concept evolved, as the protean career did, in response to the changing nature of organisations and work since the 1980's. Arthur (1994) reviewed the literature from 1980-1992 on careers, and found that although both the objective and the subjective aspects of career were being taken into account more frequently, almost all of the articles written in the 1980's assumed that a stable work environment existed, and this continued largely into the 1990's. Furthermore, the majority of articles focused on career issues within, rather than beyond, organisational boundaries, and larger firms with over 500 employees were included in research far more often than medium and small firms (Arthur, 1994). This indicated a need for a shift in the focus of career literature.

According to Arthur and Rousseau (1996), a key element of the boundaryless career concept is that firms can be changed by, as well as producing changes in, people's careers. Other key concepts are those of learning, networking and enterprising, all of which are entwined with the activities of the firm (Arthur & Rousseau, 1996). The idea of networking is particularly important in the boundaryless career as it gives employees a way to reduce reliance on their organisation through the creation of relationships beyond organisational boundaries, as well as the opportunity to learn, while offering organisations a way to gain extra knowledge and skills (Arthur, 1994). Arthur and Rousseau (1996) suggested that a good way to view the boundaryless career is as the thread that binds people and firms, as well as industrial and economic activities. The thread represents the boundaryless career in a number of ways. The thread's individual colours, textures and strength represent peoples' experiences, skills and reputation that develop over the space of a career. Such threads then develop further characteristics when woven into the fabric of the firm. In contrast to the traditional career however the boundaryless career threads in and out of different firms and binds firms together through collaboration, as well as creating tension through competition (Arthur, 1994).

Bird (1994) discussed boundaryless careers as repositories of knowledge. With the inter-firm mobility that is vital to the boundaryless career, Bird suggested that professional knowledge and values may become more important than organisational ones. Bird argued that the increased autonomy individuals are provided with in the boundaryless career offers them further responsibility, particularly in the development of knowledge and in deciding what it is that they

should learn (Bird, 1994). DeFillippi and Arthur (1994) discussed ‘know why’, ‘know how’ and ‘know whom’ – three firm competencies that had been discussed in the literature – and how these three competencies could be applied to the individual career rather than the firm. ‘Know-why’ relates to career motivation, identification and personal meaning. DeFillippi and Arthur argued that in the boundaryless career knowing why may be separate from, rather than attached to, the culture of the firm and may include occupational and/or non-work achievements. ‘Know-how’ competencies relate to job and career related skills and knowledge, as well as broader knowledge that may not be relevant for the job or organisation. DeFillippi and Arthur argued that changes to the work environment demanded continual up-dating of individual know-how as well as gaining new knowledge through inter-firm networks. ‘Know-whom’ competencies relate to career related networks, both within and beyond firms, and how these networks contribute to inter-firm communication. ‘Know-whom’ competencies were discussed as providing boundaryless careerists with a reference group for shared problem solving and support for inter-firm moves (DeFillippi & Arthur, 1994). Table 1.3, adapted from DeFillippi and Arthur (1994, p. 317), illustrates the key differences in competencies between a traditional career and a boundaryless career.

Table 1.3

Competency Profiles of Boundaryless vs. Bounded Careers

Competency	Career profile	
	Bounded	Boundaryless
Know-why		
• Identity	Employer-dependent	Employer-independent
Know-how		
• Employment context	Specialised	Flexible
• Work tasks	Specialised or flexible	Specialised or flexible
Know-whom		
• Networks	Intra-organisational	Inter-organisational
• Locus	Hierarchic	Non-hierarchic
• Structure	Prescribed	Emergent

Empirical Research

The current study focussed on both boundaryless and protean careers in a sample of New Zealand workers. The research outlined above gives an indication of the changes that are likely to have occurred in New Zealand organisations and society recently, and the likely impact on New Zealanders' careers. These changes provided the basis for this study's investigation of protean and boundaryless careers in New Zealand workers. However, the concepts as outlined so far were based primarily on the observations of researchers in Western, individualistic societies, with limited empirical evidence standing behind the claims made. In order to study protean and boundaryless careers in a New Zealand context the two concepts needed to be better defined and empirical research needed to provide evidence of the changes espoused by researchers.

Sullivan (1999) conducted a review of research into the boundaryless career concept and concluded that future research needed to focus on: how different employment relationships affect both individual and organisational outcomes; the effectiveness of learning methods aimed to develop the skills needed for success in non-traditional career paths; the effects of boundaryless careers on the career experiences of women and minorities, and how career research can be generalised across cultures. Research conducted prior to Sullivan's review had provided some support for both the protean and boundaryless career concepts. For example, Schner and Reitman (1993) found that early career gaps (periods of unemployment of at least one month) occurred in 23% of the MBA students surveyed, and mid-career gaps occurred in 13%. Breeden (1993) found that of 436 employed adults seeking career counselling, 36% changed jobs and 39% changed occupations. Although this research did provide some support for the boundaryless career concept, Sullivan (1999) claimed that because the knowledge around inter-organisational boundary crossing came from the turnover literature it provided an organisational perspective rather than an individual perspective on such transitions.

In terms of changes to the employment relationship, Altman and Post (1996) interviewed 25 senior executives of Fortune 500 firms and found that the executives noted the downfall of the old employment contract and the rise of a new contract. This new contract was based on the redefinition of a career from employment within a single firm to employability with several firms; employee

responsibility rather than employer responsibility, and an exchange based employment relationship. One executive stated “the shift is to keeping people employable - we put more burden on the employee for more flexibility.... We began to realise that change and flexibility were the name of the game” (Altman & Post, 1996, p. 53). The benefits of the new contract, including flexibility, more independent and self-directed employees, and work-family programs, were acknowledged by the executives, alongside the costs, including poor morale, reduced productivity, employee mistrust and increased unplanned turnover (Altman & Post, 1996). Changes to the employment contract were also supported in research conducted by Zabusky and Barley (1996) involving participant observation and interviews with technicians. They found that careers of achievement were valued more highly by the technicians than careers of advancement, and that the technicians aspired to become experts in their fields, valued growth, and preferred challenging work over promotions (Zabusky & Barley, 1996). Such research supported the existence of changes to the work environment that were in-line with the protean and boundaryless career concepts, however more specific research was needed.

The first study looking explicitly at the boundaryless career was undertaken by Arthur, Inkson and Pringle (1999) and involved 75 case study participants across nine occupational groups. The researchers found that 84% of respondents had changed employer at least once in the ten year survey period, suggesting that the vast majority of people in the sample were engaged in boundaryless careers. Furthermore, the 75 participants in the study had held 265 jobs with 217 employers over the ten year period (Arthur et al., 1999). It was also found that 79% of job changes were between firms, and only 50% of job changes between companies involved traditional career advancement, clear indications that career advancement and organisational careers were on the decline. Of moves across companies, 33% involved movement into a new industry, 33% into a new occupation, and 29% a new geographic location, suggesting that boundarylessness involves more than transitions across employers (Arthur et al., 1999).

Chay and Aryee (1999) were the first researchers to study the applicability of the protean career to non-Western societies. They investigated whether the *careerist attitude*, defined as perceived incompatibility between the goals of the organisation and the goals of the individual, suggesting that individuals have to

take care of themselves and consistent with the protean career model, would extend to employees in Singapore. To measure the careerist orientation they used an abbreviated version of a scale developed by Feldman and Weitz (1991) that included items such as “you cannot count on organisations to look out for your own career interests”. From a sample of 249 professional employees working full time in Singapore they found that the individualistic careerist attitude towards careers had developed in Singapore, a collectivist culture (Chay & Aryee, 1999). This study not only supports the notion of the protean career but also its applicability beyond Western societies.

Although research on the boundaryless career continued there was little consensus across research articles around what ‘boundaryless’ meant. Some researchers discussed the boundaryless career in relation to expatriate assignments. For example, Sanchez, Spector and Cooper (2000) investigated the impact that being sent abroad for work had on executives, and discussed the stages necessary for successful adjustment in a boundaryless world. Stahl, Miller and Tung (2002) also examined expatriate careers and found that motives such as personal challenge and professional development were more important in managers’ decisions to accept an international assignment than career advancement. Eby (2001) investigated the effects of inter-firm mobility on spouses who moved for their partner’s career and found support for the possible negative consequences of boundaryless careers as spouses lost objective benefits such as salary and opportunity for promotion.

Other researchers discussed the boundaryless career in relation to different types of workers, such as contingent workers and part-time workers. For example, Marler, Barringer and Milkovich (2002) tested their assumption that due to the growth of the contingent workforce two types of contingent workers had come to exist – traditional and boundaryless. They argued that traditional temporary workers had limited skills and were looking for standard long term work in a bureaucratic organisation while boundaryless temporary workers were highly skilled and had ‘quasi-contractual’ careers that consisted of temporary commitments and projects voluntarily arranged through temporary employment agencies (Marler et al., 2002). They suggested that this shift to contingent work represented part of a more general move to workers wanting independence and flexibility, as well as opportunities to develop their skills and increase their

marketability in the labour market. Their results supported the notion that a group of highly skilled American workers was voluntarily entering into temporary work arrangements, and that these boundaryless workers enjoyed the accumulation of knowledge gained across assignments and were in high demand due to their skills (Marler et al., 2002).

MacDermid, Lee, Buck and Williams (2001) contended that if the protean career model was becoming the norm then it was necessary to re-evaluate women's career success from a whole-life perspective. They argued that women have always had more diverse career paths than men due to the extra family demands put on them, and that part-time female managers have been particularly disadvantaged by traditional career development processes. To address these issues the researchers investigated the success (looked at from individual, organisational and family viewpoints) and implications of 78 female managers in the U.S. who were working part-time (MacDermid et al., 2001). The authors found that the workers who were rated as more successful overall in their part-time working arrangements had internal and personal definitions of success including job satisfaction, work content and quality of relationships with colleagues. Those whose part time work arrangements were less successful had a more traditional view of career success, with promotions, job titles and raises being their focus. The authors argued that these findings indicated that individuals with a protean career orientation were more successful in part-time work arrangements (MacDermid et al., 2001).

Other researchers continued to examine changes to the psychological contract. In particular, Maguire (2002) investigated changes to managers' perceptions of the psychological contract with a survey of 862 state managers of a paternalistic Australian bank that had undergone a significant downsizing and restructuring initiative in the 1990's. It was found that while job and career outcomes of the restructuring did significantly impact on individuals' commitment, loyalty, trust in management as well as pessimism and powerlessness, relational outcomes (opportunity for input, perceptions of management competence and sense of belonging) of the restructuring had a much greater effect on these outcomes. These findings indicated that restructuring could have particularly detrimental effects to the relational aspects of the psychological contract. Based on this,

Maguire argued that organisations needed to find ways to ensure that employees retain loyalty and commitment in the new employment contract.

Eby, Butts and Lockwood (2003) noted that little empirical literature existed on the boundaryless career, particularly around what was required for a successful boundaryless career. They measured success as consisting of the three competencies that were originally outlined by Defillipi and Arthur (1994) - knowing why, knowing how and knowing whom. Knowing why was conceptualised by the authors as being made up of career insight, proactive personality and openness to experience. Knowing whom was conceptualised as being made up of three competencies – experience in a mentoring relationship, extensiveness of networks within the organisation and extensiveness of networks beyond the organisation. Knowing how was defined as career related skills and knowledge (Eby et al., 2003). Four hundred and fifty eight alumni of a large south-eastern university in the U.S. participated in the study and the results indicated that all three competencies were important in predicting perceived career success as well as internal marketability (belief that one is valuable to current employer) and external marketability (belief that one is valuable to other employers). These findings supported the importance of being proactive, flexible and adaptable, and knowing one's strengths and limitations (knowing why) for success in the boundaryless career. Furthermore the findings support the importance of networking both inside and outside the organisation (knowing whom) in addition to diversifying one's skill set and continuously learning (knowing how) (Eby et al., 2003). This supports the original knowing why, knowing whom and knowing how model that was suggested by Defillipi and Arthur (1994).

While research into the boundaryless and protean career concepts increased, so too did criticisms and debates about their existence. Dany (2003) argued that the idea of individuals being free agents in the new career was an exaggeration, and pointed to evidence that in France, traditional careers were still prominent, with individuals seeking long term employment and vertical advancement within large firms and organisational career management practices continuing to be influential. Pringle and Mallon (2003) also critiqued the boundaryless career concept and argued that it was lacking in empirical research, and that gender, ethnicity and national context had been mostly ignored in its development. They warned that

the concept could become too narrow if research was not done to assess its applicability beyond professional workers in industrialised nations, and that further definition of the concept was needed (Pringle & Mallon, 2003). The current study aimed to address these issues by looking directly at more clearly defined models of protean and boundaryless careers in a sample of all types of workers within the New Zealand context. Pringle and Mallon also felt that the notions of individualism and agency had been over-emphasised in the literature on the boundaryless career in a way that appeared to rationalise the changes to the work environment by putting high job mobility down to personal choice and preference, when in fact for many people it was due to necessity (Pringle & Mallon, 2003).

In line with this argument, Van Buren (2003) contended that although the boundaryless career had been presented positively in most research, there was a significant negative side to it also, particularly for employees with low skill levels. Van Buren argued that the boundaryless career would be likely to widen the gap between top tier workers with rare skills and marketability and second tier workers whose low skill level made them easily replaceable. Van Buren also argued that boundaryless careers had shifted the risk and responsibility from the employer to the employee without offering any benefit in return to the employee (e.g. job security). Based on this, Van Buren stated that employers had an obligation to help maintain their employees' marketability in order to prevent possible harm to those low skilled employees who may not be able to afford to undertake up-skilling on their own (Van Buren, 2003). Research by Peel and Inkson (2004) supported the differential impact that boundaryless careers may have on low skilled and high skilled workers. The authors interviewed 15 self-employed meter-readers (low-skilled group) as well as 19 self-employed engineers (high-skilled group). They found that low-skilled workers who had shifted to contracting remained bounded by the structure of their client organisations, and lost the benefits of career structure and sociability, while gaining insecurity. On the other hand, the high-skilled group had gained higher earnings, larger networks and more career capital from the move to contracting (Peel & Inkson, 2004). The differential impact of boundaryless careers on low versus high skilled workers was further examined in the current study by directly

comparing the extent to which individuals with different education levels hold protean and boundaryless career attitudes.

Pang (2003) extended the work on the boundaryless career by investigating whether certain groups of Chinese in Hong Kong and Britain had been engaging in organisational careers over the previous two decades and whether they had been moving towards boundaryless careers. Pang also made the distinction between voluntary and involuntary boundarylessness. Voluntary boundarylessness was defined as moving to a new firm due to choice, while involuntary boundarylessness was defined as having to move to a new firm due to downsizing, phasing out, restructuring or firing (Pang, 2003). It was illustrated by Pang that the first generation Chinese in Hong Kong and Britain were involuntarily bounded into working in certain jobs and industries. However, the next generation of Chinese in Britain were voluntarily bounded to their careers, while in Hong Kong the next generation was pushed into involuntary boundarylessness (Pang, 2003). This study indicates the complexity involved in boundaryless careers when they are looked at more broadly in terms of cultural and societal factors.

Valcour and Tolbert (2003) broadened the empirical work on the boundaryless career by investigating the impact of gender and family variables on career mobility in dual earner couples. Their sample included 1890 individuals, primarily managerial and professional employees, from companies covering four economic sectors (manufacturing, healthcare, higher education and utilities) in the U.S. They found that moves within organisations were more likely for men, while women were more likely to move between organisations. The women who had the greatest objective success (earnings and promotion) were the most likely to be divorced and have fewer children. However, women with more children had higher perceived success and higher levels of boundaryless careers (inter-organisational mobility). For men, the traditional career pattern was found to be supported by the traditional family pattern, with men who earned the most and had the most within-company job moves also having the most children (Valcour & Tolbert, 2003). These results indicate that gender and family variables may influence the career patterns that individuals exhibit, in particular between boundaryless and traditional careers. However, the study once again only looked at American workers, and boundaryless careers were only defined in terms of inter-organisational mobility. To address this, potential gender differences were

examined with a more representative sample and a broader definition of the boundaryless career in the current study.

While research on the protean and boundaryless careers continued, so did the breadth of how the two concepts were defined. Much of the research discussed “new careers”, boundaryless careers, and protean careers interchangeably, making it difficult to pinpoint exactly what boundaryless and protean careers represented. Furthermore the majority of research included only those pursuing professional or managerial careers in the sample, ignoring a substantial portion of the workforce. The current study used clearly defined models of both careers in a sample that was representative of the New Zealand workforce thus addressing these issues.

Another study examining careers in the New Zealand context was conducted by Walton and Mallon (2004) with questionnaires and in-depth interviews aimed at gathering information on participants’ career stories, meanings and experiences. Forty nine New Zealanders working for three organisations from different sectors participated in the study. The researchers found that learning was the dominant theme participants used to make sense of their careers and included learning skills, getting qualifications and maintaining employability. Advancement was a dominant sense-making theme in two out of the three organisations, encompassing progressions, climbing ladders, promotion, and increasing responsibility. Some participants included moving across organisations, rather than moving upwards in an organisation, as advancement. Enjoyment and change were also dominant themes, with participants noting that change had become more prominent in the career and that adaptability and flexibility had also become important. Personal development was also mentioned as an important theme in all three organisations, and occupational identification was also dominant (Walton & Mallon, 2004). These findings indicate that while themes of the boundaryless career are important to New Zealand workers and relevant in a New Zealand context, traditional notions such as advancement still remain integral to people’s careers. The current study built on these findings by further investigating the career attitudes that New Zealanders hold.

This research highlights that although the literature on the boundaryless career discussed so far emphasised the importance of subjective success, objective career success still plays an important role. Arthur, Khapova and Wilderom (2005) argued that the fields of career theory and career success had split, with career

theorists increasingly discussing career success as subjective and internal, while other researchers continued to focus on objective measures of success such as promotion and salary. In a review of journal articles investigating career success they found that more than 44% of articles did not operationalise both objective and subjective career success and only one third acknowledged a two-way interdependence between objective and subjective career success. Furthermore few articles considered the impact of inter-organisational mobility or extra-organisational support on career success, two key concepts to the boundaryless career (Arthur et al., 2005). Based on these findings the authors called for a re-alignment between career theory and career research.

In a case-study, Inkson and Parker (2005) used the example of film director Peter Jackson to illustrate how boundaryless careers provide a framework through which knowledge is learned, maintained and exchanged, as well as creating an individual identity and contributing to the identity of an industry. Jackson's use of knowing whom, knowing how and knowing why combined with his experience in multiple roles and communities is an example of the self-managed and project-based new career. Furthermore he used his knowledge as his own source of competitive advantage. The authors argued that this individual knowledge capitalism is what made Jackson so successful. They do however note the limitations of such an approach to career management in that if you do not have such skills to market, you cannot create such success (Inkson & Parker, 2005).

Again increasing the diversity of definitions of boundaryless careers, Dowd and Kaplan (2005, p. 703) used the criteria outlined in Table 1.4 to class academics as either boundaried or boundaryless.

Table 1.4

Criteria for Defining Boundaried vs. Boundaryless Careers

Boundaried	Boundaryless
Identity derived from employer	Identity not derived from employer (possibly from self and/or profession)
Views careers as one-organisation model	Views careers as series of steps (multiple organisation model)
Looks to employer to manager career	Manages own career
Does not demonstrate skill in learning to learn or self-awareness	Possesses/values skill of learning to learn/self-awareness
Loyal to employer	Not loyal to anyone employer
Risk averse	Willing to take risks
Earning money is a high priority	Fulfilment and enjoyment are primary career choice drivers
Does not perceive self as mobile	Perceives self as mobile
Very concerned about succeeding with current employer	Not overly concerned about succeeding with current employer

Measuring boundaryless careers as above rather than through job mobility data, much better reflects what the boundaryless career represents. In this particular study, defining boundaryless careers as outlined in Table 1.4 allowed the authors to compare and contrast the different ways in which academics' careers play out, with some academics falling into the boundaryless category while others fell into the boundaried category (Dowd & Kaplan, 2005). Dowd and Kaplan highlighted that the boundaryless career involves significantly more than job mobility, a point that was recognised and reinforced in the current research.

Bridgstock (2005) argued that Australian artists were the typical protean, portfolio or boundaryless worker. With 82% of creative artists and 62% of performing artists being self-employed or working freelance (compared to 19% of the general working population) and arts graduates earning significantly less than graduates in other sectors, Bridgstock contended that these artists exhibited many aspects of the protean worker. Although artists earn significantly less than graduates in other sectors it has been argued that the profession attracts so many individuals due to a passion for their work, an indication of a desire for psychological success and a 'path with a heart' rather than objective measures of success (Bridgstock, 2005). Furthermore 75% of professional Australian artists felt that they themselves were responsible for the promotion of their work and

themselves, a finding which Bridgstock argued indicated the importance of networking and knowing whom for a successful career in the arts sector (Bridgstock, 2005). Bridgstock took these findings to indicate that the protean and boundaryless careers are not new concepts due to their long-standing existence in the arts industry.

Further research in Australia, conducted by McDonald, Brown and Bradley (2005), investigated the extent to which the career paths of senior managers were in line with the protean or traditional career models. They interviewed 15 senior managers and surveyed 81, all of whom were from a large public sector organisation. They analysed the interview data around four key themes which they felt distinguished the protean and traditional careers – development, employee orientation, definition of success and organisational environment. They found that while some aspects of career paths did indicate a shift from the traditional model to the protean model, the traditional model of careers was still dominant, particularly in men. Continuity of service and frequent upward moves within the organisation were common, while frequent moves across jobs and companies were not found to be common. Of 15 managers only two indicated an internal measure of career success, both of whom were women with dependent children, while the others indicated measures of success that were linked to climbing the corporate ladder. In line with the protean career all managers discussed responsibility for finding opportunities and developing experience as on their own shoulders, rather than relying on the organisation (McDonald et al., 2005). In line with these findings, Smith and Sheridan (2006) found that in a sample of 59 men and women employed in the accounting profession in Australia, the organisational career was still dominant. The majority of participants in their study had had long periods of stable employment with one organisation, and most participants believed that the responsibility for career management lay not only with themselves, but also with their organisation. While the accounting profession does represent a particularly structured career path, these findings still indicate that the shift towards protean and/or boundaryless careers is perhaps more limited than previously thought (Smith & Sheridan, 2006).

King, Burke and Pemberton (2005) argued that the term boundaryless career was not appropriate since careers are bounded by an individual's career history and occupational identity as well as industry structures. Using an agency database

of 591 IT professionals in the UK they investigated the effects of human capital (labour market experience, formal qualifications), career mobility and prior history with the agency on the probability of being shortlisted for a position. They found that human capital had a weaker effect on the probability of selection than they had predicted and that prior career mobility was neutral when applying for short-term positions but negative when applying for permanent positions (King et al., 2005). They also found that developing skills that are in high demand but low availability did increase the number of vacancies for which individuals were considered, however work-based experience was also required. The authors argued these results showed that even highly skilled individuals in a developing industry have careers that are bounded by certain constraints, in this case particularly those of industry intermediaries. Furthermore the finding that inter-organisational mobility had a negative impact on selection for permanent positions shows a potential downside to boundaryless careers (King et al., 2005).

Yamashita and Uenoyama (2006) also found evidence for the existence of career boundaries through a study of workers in the Hotel Industry in Japan. Interestingly the authors found that workers who exhibited higher levels of boundarylessness, measured through inter-organisational mobility, ended up with more boundaries against their career advancement. Workers who moved around between firms developed portable skills that were not company specific, which resulted in an inability to be promoted to managerial positions. On the other hand, those who were promoted to managerial positions had developed organisational-specific knowledge by remaining employed with one organisation (Yamashita & Uenoyama, 2006).

From the research discussed so far it is clear that while many of the positive impacts of the boundaryless career have been emphasised in the literature, there is also a group of individuals who are disadvantaged by the changes to the workplace, mostly those with low skill levels or a generic skill set. Currie, Tempest and Starkey (2006) argued that there is also likely to be a differential impact on organisations, with some reaping the benefits of a flexible, knowledge driven workforce, and others struggling. They investigated the impact of the new careers on middle level employees as well as the impact that changing career structures were having on organisations. They compared data from two opposing industries – the television industry which has experienced mergers, downsizing

and outsourcing and therefore represents a boundaryless context – and the international retail industry with particular focus on a bureaucratic organisation which is non-representative of the boundaryless career. The authors found that in both industries employees had experienced a shift from being bounded to one organisation to being bounded to a profession, with some choosing to become specialists while others remained generalists. While inter-organisational mobility had increased, occupational mobility had decreased, indicating that occupational boundaries still remained. Employees did seek employer-independence but the development of occupational learning and inter-organisational networks was significantly linked to occupational boundaries (Currie et al., 2006). Furthermore they found evidence for the negative effects of the boundaryless career on both organisations and individuals. Younger employees of generation X, and employees with higher skill levels received more benefits and felt more positive about the boundaryless career while employees who were older and had lower skill levels experienced more negative consequences and felt threatened by the changing boundaries (Currie et al., 2006). These findings were further explored in the current study through the investigation of the relationship between age and protean and boundaryless career attitudes, as well as of the relationship between education level and protean and boundaryless career attitudes.

Granrose and Baccili (2006) conducted interviews with 145 employees of high-tech American companies and found that aspects of the traditional career, upward mobility and job security, were still important to participants, as were aspects of the boundaryless and protean careers such as training and wellbeing. Violations of the boundaryless psychological contract, i.e. not providing training, reduced organisational commitment and increased intentions to leave the organisation. In line with the protean career, employees felt that having the ability to grow in the job as well as time for other aspects of their lives were important, although not having these did not reduce organisational commitment, but did increase intentions to leave (Granrose & Baccili, 2006).

The research outlined so far indicates the complexities involved in the changing work environment. Clearly changes to the notion of the career have occurred, however uncertainty remains around exactly to whom and to what situations, these changes extend. The current study aimed to investigate the changes to careers that have been the focus of the research up to this point in a

New Zealand context. The research discussed above provides a solid basis from which to study new careers, and many of the ideas explored so far were built on and further investigated in this research. These include potential gender differences in careers (Valcour & Tolbert, 2003), the applicability of new careers to a New Zealand context (Walton & Mallon, 2004), whether mobility is key to boundaryless careers (Dowd & Kaplan, 2005), as well as potential differences in career attitudes between individuals of different ages and with different levels of education (Currie et al., 2006; Van Buren, 2003). However, in order to better understand these career changes, studies needed to explore the protean and boundaryless career models with consistent definitions and measures. This study aimed to address this need by using measures of both career attitudes that have been well validated, and are based on sound models. The development of these measures, and the models on which they are based are outlined below.

Clarification of Protean and Boundaryless Careers

Although a significant amount of research had been conducted up to this point, considerable inconsistencies existed between studies, and therefore the two career concepts needed to be re-assessed. Inkson (2006) felt that the initial description of the protean career as adaptability and flexibility was too narrow, and that it was important to include the other aspects – self-direction, identity and specific values – in its definition. In terms of the boundaryless career, Inkson argued that boundaries are always there, and that a better term may therefore be boundary-crossing rather than boundary-less. Furthermore despite the focus in the research on boundaryless careers as mobility, Inkson argued the importance of acknowledging the internal boundaryless career expressed through networking and knowing whom, knowing why and knowing how. Inkson called for empirical studies looking at the dynamics of the two concepts.

Sullivan and Arthur (2006) aimed to further clarify the meaning of the boundaryless career and further investigate the interaction of psychological and physical mobility. They argued that researchers had over-emphasised the crossing of physical boundaries in the boundaryless career while neglecting the psychological crossing of boundaries and the interaction that this may have with physical mobility. They defined physical mobility as the transition across boundaries and psychological mobility as the perception of the ability to make such transitions (Sullivan & Arthur, 2006). They argued that the reason for the

lack of research into psychological mobility was most likely the difficulty involved in measuring it. Table 1.5 below, adapted from Sullivan and Arthur (2006, p. 22), demonstrates their model of the boundaryless career.

Table 1.5

Two Dimensions of Boundaryless Careers

Psychological Mobility	High	Quadrant 3	Quadrant 4
	Low	Quadrant 1	Quadrant 2
		Physical mobility	
			High

The model outlined in Table 1.5 suggests that boundaryless careers are not made up of either psychological mobility or physical mobility but rather can consist of any combination of the two. This two dimensional model of the boundaryless career was adopted in the current research. An individual's desire for both physical mobility, i.e. the desire to work for more than one employer, as well as psychological mobility, i.e. the desire to network and collaborate with individuals beyond their own team and organisation, were measured in a sample of New Zealand workers. This was a key component of this research as it acknowledged that physical mobility is not definitive of boundaryless careers, and allowed boundaryless careers to be explored in their entirety. The associations between demographic and personality variables and both physical and psychological mobility were explored, thus providing a broader picture and a better understanding of what variables play a role in the development of boundaryless career attitudes.

Briscoe and Hall (2006) analysed the model of the boundaryless career in combination with, as well as separately from, the model of the protean career. They defined the boundaryless career as recognising the endless opportunities that are available during a career and the success that occurs if one takes advantage of them. They discussed the protean career as involving a self-directed approach to one's career as well as a career that is directed by one's own values. They argued that the two models had been too entwined in the research as representing the overall new career, and that better definition and separation of the concepts would allow for further theory building and research (Briscoe & Hall, 2006). The authors suggested that the conflicting findings about both the boundaryless and protean

careers in the research occurred because of a lack of definition about what is involved in each career. In line with the model proposed by Sullivan and Arthur (2006) they defined the boundaryless career as consisting of both physical and psychological mobility. They argued that the protean career does not imply one particular type of career behaviour but rather it is an attitude consisting of a cognitive component (set of beliefs about the career); an evaluative component (what a good or bad career consists of for the individual) and a behavioural component (a tendency to behave in a certain way) (Briscoe & Hall, 2006). Based on this they defined the protean career as consisting of a values driven component – the idea that a person’s values provide guidance for their meanings of career success – and a self-directed approach to career management. Individuals can have any combination of values-driven and self-directed attitudes, with those who are high on both being defined as ‘protean’. This two-dimensional model of the protean career was adopted in the current study, with self-directed career attitudes and values-driven career attitudes measured separately, and both being considered as part of a more general protean career attitude. The relationships that demographic and personality variables may have with both components of the protean career were explored individually, thus providing a clearer picture on the variables that relate to protean career attitudes.

Although the boundaryless and protean career concepts had now been clarified, further research was needed, in particular the development of measures. In response to this Briscoe, Hall and DeMuth (2006) used the two-dimensional model of the boundaryless career developed by Sullivan and Arthur (2006) and the two-dimensional model of the protean career developed by Briscoe and Hall (2006) to develop and validate quantitative measures of both careers. They developed a self-directed career management scale and a values-driven attitude scale to measure the protean career. They also created a physical mobility scale (mobility preference) and a psychological mobility (boundaryless mindset) scale to measure the boundaryless career. The boundaryless mindset scale aimed to measure ones’ attitude to working across organisational boundaries while the mobility preference scale aimed to assess the strength of interest in remaining with a single (or multiple) employer(s). In order to validate the scales the authors conducted three studies. The first involved distributing all four scales to 100 undergraduate business students, 113 part-time MBA students and 85 middle

managers. The authors assessed the correlations between the scales in each participant group and found that mobility preference did not necessarily correlate with either the protean career or the boundaryless mindset (Briscoe et al., 2006). This finding is particularly interesting because it indicates that having a protean or boundaryless attitude does not necessarily imply a preference for job mobility, as it has generally been thought to in the literature. This was further explored in the current study, and different types of career mobility such as employer mobility, occupational mobility and geographic mobility were measured in order to investigate further the links between these career attitudes and mobility.

In Briscoe et al's (2006) second study the final scales were decided upon. In the third study the validity of the scales was explored, primarily by assessing convergent validity. Proactive personality was expected to correlate with self-directed career management while career authenticity was expected to correlate with values-driven. Openness to experience was expected to relate to the boundaryless mindset construct and mastery learning orientation was expected to correlate with all four scales (Briscoe et al., 2006). It was found that proactive personality correlated with both self-directed and values-driven career management, as well as boundaryless mindset and mobility preference. These findings indicate that all four of the scales relate to other variables in the ways that would be expected, and therefore they are all valid measures. The development and validation of these measures significantly opened up the possibilities for comparable research to be conducted on a range of samples in order to better understand boundaryless and protean careers. These measures were used in the current study with the intention of providing a more comprehensive understanding of protean and boundaryless careers in a New Zealand context, and to offer results that are comparable with those in other studies that have used these measures. The focus of this study was how demographic variables and personality variables relate to protean and boundaryless career attitudes when measured with these scales. Briscoe et al's (2006) study already indicates possible relationships between these career attitudes and personality variables, and these were further explored. Studies that have used the newly defined models of the protean and boundaryless careers, and are therefore comparable with the current research, are outlined below.

Further Research

The clarification of the protean and boundaryless career concepts meant that better comparisons could be made across studies. Sargent and Domberger (2007) used the self-directed and values-driven protean career model in interviews with graduates who were in their final semester of university study. They aimed to explore how the protean career developed as well as further clarify the values-driven dimension of the protean career, in particular whether protean careerists held the values of freedom and growth higher than extrinsic gain, or whether protean careerists wanted to follow their own values, whatever they might be. Interviewees were classed as protean if they discussed career self-management (self-directedness) or values congruence (values-driven) as important. Of those interviewees who discussed being values-driven, two themes emerged: wanting work that made a social contribution, and a desire for work-life balance. While these findings offer support for self-directed and values driven protean career model, the interviewees also mentioned extrinsic career success and organisational career management as important, indicating that aspects of the traditional model of career were still central to graduates (Sargent & Domberger, 2007). This study reinforced the model of the protean career as defined by Briscoe and Hall (2006) and also added to our understanding of the values-driven dimension, as well as how protean career orientations develop. The sample size however was limited and results cannot be generalised beyond individuals at graduate level.

DeVos and Soens (2008) used the self-directed career management scale developed by Briscoe et al. (2006) in a survey with 289 Belgian employees who had undertaken career counselling. They found that of individuals who had received career counselling, those with a self-directed attitude to career management reported higher levels of career satisfaction and perceived employability, a relationship which was mediated by the development of career insight (De Vos & Soens, 2008). They also found that individuals with a self-directed attitude were more likely to engage in career self-management behaviours (such as creating networks with people who could influence their career) which improved career outcomes. However, career self-management behaviours alone did not relate to career outcomes, indicating the importance of a self-directed career attitude to today's employees. The authors suggested that if

organisations want their employees to be more self-directed in their career development they need to not only train them in career management behaviours (which according to this study do not impact career outcomes) but also target employees' attitudes to career development, for example by encouraging individual responsibility for career development (De Vos & Soens, 2008). While this study adds to the literature on the protean career, the researchers did not look at values-driven career management. Furthermore the career self-management behaviours discussed in the study are similar to those exhibited in the boundaryless career in the form of psychological mobility so including the boundaryless career attitude scale in the study would have been useful.

Using a similar method, Verbruggen and Sels (2008) investigated whether career counselling could improve individual's self-directedness through the development of self-awareness and adaptability, and the impact that this had on participating in training and job mobility, and career satisfaction. Two hundred and two Flemish individuals under-going career counselling participated in a longitudinal study, including a survey with the self-directed career management scale developed by Briscoe et al (2006). They found that career self-directedness and self-awareness increased after individuals had taken part in career counselling and remained higher 6 months after individuals had completed the counselling. It was also found that changes to self-awareness and adaptability were significantly and positively related to changes in self-directedness, and the lower self-directedness was at the start, the greater the likelihood that it improved during the counselling. Higher levels of self-awareness and adaptability at the start of the counselling also increased the likelihood of an improvement in self-directedness. The authors found that individuals with higher self-directedness before the counselling, as well as the individuals who had increased their self-directedness the most during the counselling, were more likely to engage in training, change employer, and have increased career satisfaction after the counselling (Verbruggen & Sels, 2008). These findings offer an insight into self-directedness, in particular that it is important for career satisfaction, that it can be improved through career counselling, and that it is impacted on by self-awareness and adaptability, both of which can also be improved through career counselling.

Inkson, Roper and Ganesh (2008) critically analysed the discourse relating to boundaryless careers, and stated that since the book "the boundaryless career:

a new employment principle for a new organizational era” (Arthur & Rousseau, 1996) was produced, the majority of research and literature on the boundaryless career has been confined to business schools. They found that while there was a reasonable amount of research conducted on the boundaryless career, very little of this had been done outside of the business school area, and even less had reached a public, non-academic audience. Although they found that studies had been conducted across a range of countries, they did highlight that the countries in which boundaryless careers were studied most frequently were also those that had the political structures that would support a move towards boundaryless careers (Inkson et al., 2008). The authors also found that although most researchers claimed that a shift towards boundaryless careers was inevitable, there is not enough evidence to support such claims, particularly in relation to decreased job tenure or increased labour turnover (Inkson et al., 2008). The authors stated that because boundaryless careers had come to be thought of as normal, their prevalence was accepted, regardless of whether or not there was evidence to support it. The authors concluded that:

This does not necessarily mean that the boundaryless career is a concept without value. It has stimulated considerable academic interest, presents an appropriate model of thinking and conduct for *some* individuals, *some* organizations, and *some* industries...However, thinking and research about boundaryless careers needs to be contextualized (Inkson et al., 2008, p. 24)

This highlights the need for further research around the boundaryless career that questions whether there is adequate evidence of its existence, and if there is, which contexts support such existence. The use of the measures developed by Briscoe et al (2006) in the current study helps to provide this understanding, particularly as they were used in the New Zealand context, and were investigated alongside demographic and personality variables. This study therefore provides a better understanding of the contexts in which both protean and boundaryless career attitudes are most likely to occur.

In Korea, Park (2009b) also used the self-directed career management scale (translated into Korean) in a study with 261 employees of a Korean financial services organisation. The authors found that subjective career success, the calling

work orientation and organisational learning climate all impacted positively on self-directed career management. These findings indicate that having subjective measures of success, regarding one's job as inseparable from one's life, and an organisational climate that promotes questioning and experimentation among employees and provides ongoing growth opportunities are all likely to increase a person's self-directed career management (Park, 2009b). In another study, this time with 292 employees of two Korean manufacturing firms, using the self-directed career management scale, Park (2009a) once again looked at the effects of other variables, including the organisational learning climate, the individual's work orientation and demographic variables, on the protean career. Once again the findings showed that a calling work orientation had a positive influence on a person's self-directed career management, as did two aspects of the organisational learning environment – the embedded system (for capturing and sharing learning) and the system connection dimension (characterising an organisation as one workforce in a shared-market environment). Demographic variables showed no relationship to self-directed career management (Park, 2009a).

Segers, Inceoglu, Vloeberghs, Bartram and Henderickx (2008) used both models of the protean and boundaryless careers as described by Briscoe et al (2006) but rather than using the measures developed they linked the career attitudes to underlying motives. They proposed that people with a self-directed attitude would be more motivated by personal growth and achievement but less motivated by job security. They defined a values-driven attitude as being motivated by upholding personal ideals, rather than extrinsic motivators such as money. Psychological mobility was defined as being driven by autonomy, affiliation and interest, and physical mobility as driven by money, status, promotion and interest, and less driven by job security (Segers et al., 2008). Thirteen thousand, six hundred and fifty five individuals from nine European countries completed the SHL motivation questionnaire. It was found that women scored more highly on motivators linked to psychological mobility and values-driven career management, while men scored more highly on motivators linked to physical mobility. They also found that values-driven motivations increased with age, while self-directedness and physical mobility motivations decreased with age. Furthermore having management experience or a higher education was found

to be positively related to motivators linked to psychological mobility, physical mobility and self-directed career management (Segers et al., 2008).

Segers et al. (2008) also used cluster analysis to group individuals into the profiles: Lost/Trapped, Fortressed, Wanderer, Idealist, Organisation man/woman, Solid Citizen, Hired gun/hired hand, and Protean career architect. This enabled them to look at differences across countries, with the main finding being that in Scandinavian countries there was a particularly high proportion of protean career architects (high on all four attitudes) and a particularly low proportion of hired gun/hired hands (high on all attitudes except values-driven) (Segers et al., 2008). They used cluster analysis to compare results across industries and found that protean career architects were found predominantly in health and social services, consulting, science and research, marketing and the public sector. The hired hand/hired gun cluster appeared at an above average rate in sales, while the curious/wanderer cluster (high only on physical mobility) was more likely to occur in health and social services, education, call centre and sales industries. In construction, manufacturing, transport/logistics and internet/new technologies, people were more trapped/lost (low on all four attitudes) in their motivations (Segers et al., 2008). The results of this study significantly improved our understanding of the protean and boundaryless careers. The results show that demographics do impact on the career attitudes that individuals hold, as does the country from which one originates and the industry in which one works. The main limitation of this study is the use of motivations to measure boundaryless and protean career attitudes. The current study built on the findings of Segers and colleagues by assessing whether the findings that relate to demographic variables could be replicated in a New Zealand context with the Boundaryless Career Attitudes Scale and the Protean Career Attitudes Scale. As Segers et al found some differences across industry sectors, these potential differences were also further explored.

Briscoe and Finkelstein (2009) used the protean career attitude scale and the boundaryless career attitude scale to investigate if any relationship existed between the two career attitudes and organisational commitment. Two hundred and twelve part-time MBA students took part in the survey. Firstly the authors verified the findings by Briscoe et al (2006) in that all four scales were found to represent related yet distinct constructs. In terms of organisational commitment,

the only relationships found were between mobility preference and affective, normative and continuance commitment, with mobility preference reducing each type of commitment. None of the other three scales related to any of the commitment measures except for a negative relationship between boundaryless mindset and normative commitment that existed only when individuals received low levels of development opportunities (Briscoe & Finkelstein, 2009). The findings of this study are particularly important because in the literature protean and boundaryless career attitudes have often been associated with low levels of organisational commitment and a desire to be free from organisational constraints. However, the results of this study indicate that holding a protean career attitude, or a boundaryless mindset, does not imply lower levels of organisational commitment. Furthermore the provision of development opportunities can increase normative commitment in individuals who hold a boundaryless mindset.

As can be seen from the studies outlined so far, research outside of the U.S. and the U.K. increased dramatically since the development of measures for the protean and boundaryless career attitudes, with a number of interesting areas for future research appearing. A number of studies continued to add to the research on changes to the career, particularly from a cross-cultural perspective. Gerber, Wittekind, Grote, Conway and Guest (2009) carried out a comparative analysis of career orientations across the French-speaking and German-speaking parts of Switzerland and Great Britain. To assess career orientations the authors used nine items containing a number of dimensions of the traditional career as well as the 'new' career. The authors found different career orientations across each sample, indicating that career orientations cannot be generalised across cultures, and in this case not even across cultures within the same country. Although this study used a measure which only captures some of the aspects of the boundaryless and protean careers, it does provide evidence that career orientations differ across cultures, providing further incentive for the current study's exploration of career attitudes in a New Zealand context.

Sullivan and Baruch (2009) conducted a review of the literature on careers and noted that the literature on protean and boundaryless careers had come a long way, especially since the development and validation of measures. They suggested that more research needed to be done to assess possible cultural and national differences in the protean and boundaryless career attitudes, as well as

possible gender differences. Both of these suggestions were addressed in the current study through the investigation of protean and boundaryless career attitudes in New Zealand workers, as well as the exploration of potential differences between genders. Furthermore they recommended that more research be conducted around what may constrain or help individuals in this new career world, for example personality traits. The current study addressed this by examining the relationships between protean and boundaryless career attitudes and two personality variables – openness to experience and proactive personality. In terms of mobility the authors suggested that different types of mobility, including occupational, geographic, voluntary and non-voluntary should be investigated further (Sullivan & Baruch, 2009), a suggestion which was taken on in this research through the measurement of several types of career mobility. The ongoing importance of the traditional career model was also mentioned by the researchers, and studies that assess differences across industries, organisations and occupations were called for. These claims are important, and thus the current study aimed to investigate protean and boundaryless career attitudes in a sample of individuals that work in a range of industries, organisations and occupations, in order to determine the extent to which these career attitudes can be generalised across such groups.

Although an increasing number of studies used the measures developed by Briscoe et al (2006) to measure protean and boundaryless careers, many researchers continued to use other measures (Cheremie, Sturman, & Walsh, 2007; Clarke, 2009; Cunningham & Sweet, 2009; Gerber et al., 2009; Ituma & Simpson, 2009; Sommerlund & Boutaiba, 2007; Vigoda-Gadot & Grimland, 2008). Furthermore, as can be seen from the research outlined above, few studies have used all four measures, with many studies choosing to look only at self-directed career management (De Vos & Soens, 2008; Park, 2009a, 2009b; Verbruggen & Sels, 2008). Due to the amount of literature in existence on the boundaryless career before the development of measures it seems strange that so little research has been conducted using the valid measures that are available. In addition, restricting the protean career concept to only include self-directed career management ignores an important and significant part of the construct. Furthermore, many studies (Briscoe & Finkelstein, 2009; Sargent & Domberger, 2007) focus on students, in particular MBA students, rather than individuals in the

full-time workforce. Further research is therefore needed that focuses on full-time workers and that measures boundaryless careers in terms of both mobility preference and boundaryless mindset, and protean careers in terms of both self-directed career management and values-driven career management. This study aimed to address these issues by using all four measures of boundaryless and protean careers, as well as by conducting the research on people who are in the workforce. It also built on the research already conducted by integrating the findings from the studies outlined above to provide a basis for research hypotheses and areas for exploration.

Research Questions and Aims

The aim of this research was to further our understanding of the boundaryless and protean career attitudes by investigating them, alongside other variables, in a sample of New Zealand workers. Since the development of measures for the boundaryless and protean careers, consistency between studies has increased significantly. However, there is a need for more research that looks at both models in their entirety. Furthermore, although some research has been conducted around changes to the career in New Zealand individuals, no known studies have used the models and measures recently developed. Walton and Mallon (2004) found that within a sample of 38 white collar New Zealand workers, career boundaries had shifted, and career self-management, development and learning were all important to participants, indicating the relevance of the protean and boundaryless career perspectives to New Zealand organisations. However they also found that more traditional elements of career success, such as the need to advance in an organisation, were seen as important. These findings indicate the relevance of new career models to New Zealand individuals, while also implying that complexities exist. Until research is conducted on a New Zealand sample using clearly defined models of both career attitudes it is difficult to compare findings to those in other studies and gain a better understanding of the factors affecting the career attitudes that New Zealanders hold. This study aimed to address the gap in the empirical literature by using the measures developed by Briscoe et al (2006) to look at the self-directed and values-driven career attitudes as well as mobility preference and boundaryless mindset in a sample of New Zealand individuals. In order to gain an insight into what impacts on the career attitudes that New Zealanders hold,

comparisons will be made across demographic groups. The first research question is therefore:

RQ1: Do protean and boundaryless career attitudes differ across demographic groups in a New Zealand sample?

In terms of gender, the traditional career path has tended to apply more to men than to women due to the family commitments that women have. The traditional, objective measures of career success, such as promotion and salary, which tend to occur through longevity with one company, are less achievable for women who need to take time out from the workforce for pregnancy, childbirth or childcare, or who need to share their mental resources between their workplace and their children (Valcour & Ladge, 2008). In the protean career, however, success is measured subjectively, through an individual's own feelings of success. This subjective success is less likely to be impeded by factors such as needing to take time out from the workforce to look after one's children, suggesting that holding such an attitude may be of benefit to women (Valcour & Ladge, 2008). Furthermore it has been suggested that the rise of the protean career and internal definitions of career success has to some extent evened-out the playing field and made it easier for women to be as successful as men in their careers (Ackah & Heaton, 2004).

Another attribute of the protean career which may make it more applicable to women than to men is the possibility for multiple career cycles of exploration, learning and mastery. The ability to begin a new, independent career path in the protean career may mean that extra family demands have a less permanent impact on a woman's career (Valcour & Ladge, 2008). In line with this, McDonald et al (2005) found that protean career attitudes were stronger in women than in men, and Segers, Inceoglu, Vloeberghs, Batram and Hendrix (2008) found that women scored more highly on the values-driven attitude than men did. However, studies that have used the Protean Career Attitude Scale developed by Briscoe et al (2006) have found limited evidence to support the notion that women are more likely to hold protean career attitudes than men. Park (2009b), Briscoe et al (2006), and Briscoe and Finkelstein (2009) found no support for differences between men and women on self-directed career management, nor support for

differences between men and women in values-driven career management, when this scale was used. It is therefore necessary to investigate further whether women really are more likely to hold protean career attitudes. It is hypothesised that:

H1a: Women will score more highly on the self-directed career attitude than men

H1b: Women will score more highly on the values-driven career attitude than men

In terms of the boundaryless career, Sullivan and Arthur (2006) argued that women and men differ in their careers due to social and psychological gender differences. Women may make career choices that lead to better work/family balance at the cost of lower salary or less advancement; they have a higher chance of following their husband in dual-career marriages, and they are more likely to put their husband's job ahead of their own (Forret, Sullivan, & Mainiero, 2010; Valcour & Tolbert, 2003). Furthermore women may leave the workforce for periods of time due to family commitments. Forret and colleagues (2010) suggested that these factors lead women's physical mobility to be bounded, particularly by their relationships and commitments. Ackah and Heaton (2004) found support for this with the finding that women were much more likely than men to have stayed with one organisation during their career.

On the other hand, men's psychological mobility may be limited by societal expectations that encourage them to follow a traditional career path and fulfil the role of the family breadwinner (Forret et al., 2010). In addition, Segers et al (2008) suggested that women are more motivated by variety in their work, and more likely to have careers that are relational based, leading to a desire for psychological mobility through networking. Ackhah and Heaton (2004) argued that the flatter organisational structures require people to share responsibilities and successes with others rather than directing and making decisions. This requires workers to be responsive to others, egalitarian, supportive and empowering, rather than dominating, all of which have traditionally been feminine traits (Ackah & Heaton, 2004). In careers that require relationship building, i.e. the psychological mobility aspect of boundaryless careers, women are therefore likely to thrive. Men on the other hand tend to be more driven by money and promotion, and climbing the corporate ladder, resulting in a desire for more physical mobility (Segers et al., 2008). Segers et al found support for this logic in their study, with

men scoring more highly on motivators linked to physical mobility and women scoring more highly on motivators linked to psychological mobility. Forret and colleagues (2010) also found support for the notion that women are more likely to exhibit psychological mobility than men in their study exploring attitudes towards periods of unemployment.

Despite these findings, there has been limited support for these proposed gender differences in studies that have used the Boundaryless Career Attitude Scale as developed by Briscoe et al (2006) with Briscoe and colleagues (2006) and Briscoe and Finkelstein (2009) finding no gender differences across either of the boundaryless career attitudes. Nevertheless, the number of studies that have used the Boundaryless Career Attitude Scale is even more limited than those looking at the Protean Career Attitude Scale, and it is therefore still worth investigating potential gender differences. It is therefore hypothesised that:

H2a: Women will score more highly on psychological mobility (boundaryless mindset) than men

H2b: Women will score less highly on physical mobility (mobility preference) than men

In terms of age and the protean career, it has been found that as people age they are less motivated to initiate self-development at work (Warr & Birdi, 1998). This is thought to occur because of an alteration in the cost-benefit trade off, as well as higher anxiety around possible learning difficulties (Warr & Birdi, 1998). Furthermore as people age, extrinsic rewards for higher performance lose their appeal and work begins to play a less important role in their lives, leading to lower levels of motivation to perform highly and develop at work (Kanfer & Ackerman, 2004). This reduction in motivation for self-development at work suggests that with age people will be less motivated to independently manage their careers, leading them to be less self-directed in their career attitude (Segers et al., 2008). In support of this, Segers et al (2008) found that a self-directed career attitude was negatively related to age.

On the other hand, it has been argued that as people age they become more interested in reinforcing their own identity and protecting their self-concept (Kanfer & Ackerman, 2004). In support of this reasoning it has been found that

the motivation to uphold one's values and ideals increases with age, which is likely to lead to higher levels of values-driven career management (Segers et al., 2008). In line with this argument, Segers et al. (2008) found that a values-driven attitude was positively related to age. Other researchers have found no relationship between age and either protean career attitude (Briscoe & Finkelstein, 2009) while others have found both protean attitudes to correlate positively with age (Briscoe et al., 2006), indicating a need for further investigation. It is hypothesised that:

H3a: Age will be negatively related to the self-directed career attitude

H3b: Age will be positively related to the values-driven career attitude

In terms of the boundaryless career, as people age they are less motivated by objective rewards at work such as promotions and salary increases as the return in the effort-exchange relationship is seen to decline (Kanfer & Ackerman, 2004). Furthermore, as people age they have less energy (Kanfer & Ackerman, 2004) and are more driven by job security (Segers et al., 2008). In addition, finding a job in the labour market becomes more difficult with age which, combined with the other factors, is likely to lead people to be less likely to want to be physically mobile in their careers (Segers et al., 2008). In line with this logic, Cheramie et al. (2007) found that age was negatively related to employer movements, Segers et al (2008) found that physical mobility motivations were negatively related to age, and Currie et al (2006) found that younger employees of generation X felt more positive about the boundaryless career, while employees who were older felt threatened by the changing boundaries. In terms of psychological mobility, Segers et al (2008) found no relationship between age and motivations to be psychologically mobile. For both physical and psychological mobility not all evidence is consistent, with Briscoe et al (2006) finding both boundaryless mindset and organisational mobility preference to be positively related to age in their second study, and not related to age in their third study, and Briscoe and Finkelstein (2009) finding no relationship between either boundaryless career attitude and age. Further clarification is clearly required. No relationship is expected to be found between age and boundaryless mindset, but for mobility preference it is hypothesised that:

H4a: Age will be negatively related to physical mobility (mobility preference)

In terms of education level, as discussed in the literature, a potential downside to changes to careers is that people of lower skill and education levels may be disadvantaged (Van Buren, 2003). To date, no known studies have explicitly examined the relationship between the protean career, as measured by the Protean Career Attitudes Scale, and education level. Briscoe et al (2006) did however find relatively stable scores across their samples, each of which was at a different educational stage. Segers et al (2008) on the other hand found that education level correlated positively with motivations linked to self-directed career management. They suggested that this may be because people who are more highly educated are more motivated to engage in learning and development. Although they found no correlation between education level and the values-driven attitude, they did find that people without a degree were lower on the values-driven attitude than those with a degree. Based on this it is hypothesised that:

H5a: Individuals with higher levels of education will be more self-directed in their career attitudes

H5b: Individuals with higher levels of education will be more values-driven in their career attitudes

In terms of the boundaryless career, workers who are more highly educated and in positions of management have been found to be more likely to chase promotions, salary and status in their careers (Segers et al., 2008). Chermie and colleagues (2007) found that switching employers was likely to lead to an increase in compensation levels, thereby providing more highly educated employees who are aiming for higher salaries with an incentive for moving between companies. In line with this, Segers et al (2008) found that education level was positively correlated with motivations linked to both physical and psychological mobility. Furthermore, Currie et al. (2006) found that employees with higher skill levels received more benefits and felt more positive about the boundaryless career, while employees who had lower skill levels experienced more negative consequences and felt threatened by the changing boundaries. It can also be argued that more

highly educated employees have more work alternatives and tend to be less concerned about job security, making them more likely to be open towards physical mobility in their careers (Segers et al., 2008). Briscoe et al (2006) found inconsistent evidence for a relationship between boundaryless career attitudes and education level in their studies, with stable scores occurring in both attitudes across their undergraduate, MBA and executive samples in Study Two, but with boundaryless mindset increasing across each educational sample in Study One. No other known studies have looked in to whether education level is related to either boundaryless mindset or organisational mobility preference. Further investigation is therefore needed. It is hypothesised that:

H6a: Individuals with higher levels of education will have higher levels of boundaryless mindset

H6b: Individuals with higher levels of education will have higher levels of mobility preference

Personality correlates of career attitudes, including openness to experience and proactive personality, were also looked at in this research. This leads to the third research question:

RQ2: Do protean and boundaryless career attitudes relate to personality variables in a New Zealand sample?

Proactive personality is defined as "the relatively stable tendency to effect environmental change" (Bateman & Crant, 1993, p. 103), and suggests that people differ in the extent to which they will want to instigate actions that alter their surrounding environment. From this definition it seems intuitive that such a personality dimension would correlate with the boundaryless career attitude, which involves the desire to initiate physical and psychological movement in one's career, as well as the protean career attitude which involves taking an independent approach to career management. Furthermore, Eby, Butts and Lockwood (2003) measured proactive personality as part of the knowing why competency and found that it was important for achieving success in boundaryless careers. This has been supported in the research with Briscoe et al (2006) finding

that proactive personality correlated positively with both self-directed career management and values-driven career management, as well as with boundaryless mindset and mobility preference. McArdle, Waters, Briscoe and Hall (2007) also found that proactive personality correlated positively with boundaryless mindset. Furthermore, in support of a positive relationship between the protean career and proactive personality, it was found by Seibert, Crant and Kraimer (1999) that proactive personality correlated positively with independent career management and Major, Turner and Fletcher (2006) found that proactive personality was linked to both motivation to learn, i.e. the desire to engage in training and development as well as to learn the training content and embrace the experience, and development activity. In support of a positive relationship between the boundaryless career and proactive personality it was found by Chiaburu, Baker and Pitariu (2006) that job mobility preparedness was positively correlated with proactive personality. It is therefore hypothesised that:

H7a: Proactive personality will correlate positively with the self-directed career attitude

H7b: Proactive personality will correlate positively with the values-driven career attitude

H8a: Proactive personality will correlate positively with the boundaryless mindset

H8b: Proactive personality will correlate positively with the mobility preference

Openness to experience involves flexibility in one's thinking, and being open to new feelings, experiences and ideas (Bateman & Crant, 1993). The protean career in itself is about being flexible and adaptable in one's career, and is therefore intuitively linked to the personality dimension of openness to experience. Furthermore, wanting to independently manage and direct one's career (self-directed career management), without leaning on the values of the company one works for to guide career decisions (values-driven career management) would be thought to require a certain amount of openness. In support of this, Major, Turner and Fletcher (2006) found that openness to experience positively predicted motivation to learn as well as development activity. Eby, Butts and Lockwood (Eby et al., 2003) measured openness to experience as part of the knowing why competency and found that it was

important to achieving success in boundaryless careers. In addition, wanting to work with people beyond your own organisation (boundaryless mindset) and having a preference for working within more than one company (mobility preference) both require openness. Based on this and the findings of Briscoe et al (2006) that openness to experience was positively related to all four career attitudes, it is hypothesised that:

H9a: Openness to experience will correlate positively with the self-directed career attitude

H9b: Openness to experience will correlate positively with the values-driven career attitude

H10a: Openness to experience will correlate positively with the boundaryless mindset

H10b: Openness to experience will correlate positively with the mobility preference

The third and final research question for this study is:

RQ3: Do variables relating to the career paths of New Zealanders impact on the extent to which they hold protean and boundaryless career attitudes?

Although Briscoe et al (2006) found no relationship between the proportion of job changes and employers per years in the workforce and either of the boundaryless or protean attitude scales, mobility has often been used as a measure of the boundaryless career, and even more frequently has been included in definitions of the boundaryless career. It therefore seems strange that no relationship exists between measures of the boundaryless career and employer mobility. In order to further test this relationship, participants were asked how many times they have changed employer since entering the workforce. Number of employers since entering the workforce was then be divided by years in the workforce to create a measure of employer mobility (Valcour & Ladge, 2008). Due to the separation of the boundaryless career concept into physical and psychological mobility, it would be expected that actual job mobility would correlate with a mobility preference, however it may not correlate with the

boundaryless mindset (psychological mobility) as people can maintain that mindset without actually physically crossing boundaries. Based on this, the final hypothesis for this study is:

H11: Inter-organisational mobility (number of employer changes since entering workforce divided by number of years in workforce) will be positively correlated with mobility preference

As this study was one of the first to use all four scales of the boundaryless and protean career attitudes, some additional variables were included in order to gain an insight into how they relate to these career attitudes. As well as inter-organisational mobility, occupational, geographic and intra-organisational mobility were measured in order to explore the links between protean and boundaryless career attitudes and types of career mobility. This study also explored whether any relationship exists between the protean and boundaryless career attitudes and the traditional career stages of exploration, establishment, mastery and disengagement. No known studies have examined possible relationships between the traditional and modern career models and it is therefore worth exploring. Comparisons were also made across employment contract status, as measured by whether an individual is on a permanent, fixed term or casual contract, and employment sector to explore whether these variables impact on the career attitudes that individuals hold. Furthermore as Briscoe et al (2006) found that organisational mobility preference (physical mobility) did not correlate with either of the protean career scales, or the boundaryless mindset scale, in a sample of undergraduate students but that it did correlate with the protean career attitude and boundaryless mindset when the sample consisted of MBA students, length of time in the workforce and length of time working in current occupation were asked. Analyses were then conducted to see if these variables relate to the career attitudes that an individual holds.

Chapter Two – Method

Participants

Surveys were sent to 1300 New Zealand workers via four organisations. The first organisation was a private sector organisation in the finance industry and the survey was sent to all of its 250 employees. The second organisation was a private sector organisation in transport, and the survey was sent to 200 of its 480 employees. The third organisation was a professional membership organisation with over 3800 members in the private and public sector, and the survey was sent to 700 of these. The fourth organisation was a private sector organisation in finance/banking and the survey was sent to a random sample of 150 out of 9000 employees. Of the 1300 people who were sent the survey, 309 people started the survey and 233 people completed it, giving a 24% response rate and a 75% completion rate. Three cases were removed because they identified themselves as self-employed and another four cases were deleted because they did not complete half of the scales, leaving a total of 226 participants.

Demographic information for the final 226 participants is included in Table 2.1. Employment sector and employment contract details of participants are included in Table 2.2. In terms of employment sector, only the top five are included in Table 2.2. Other categories mentioned were added to the “other” category. The most frequently mentioned of these were insurance (9), manufacturing (9), transport and logistics (9), health and social services (8) and human resources (8).

Table 2.1

Demographics

		N	Range	Mean	SD
Age		198	44	40.59	11.19
		Frequency		Percent	
Gender	Male	74		32.9	
	Female	151		67.1	
	Total N	225			
Ethnicity	New Zealand European	160		71.1	
	Maori	13		5.8	
	Pacific Peoples	5		2.2	
	Asian	4		1.8	
	Other European	21		9.3	
	Other	22		9.8	
	Total N	225			
Education Level	Some high school	12		5.3	
	High school graduate	25		11.1	
	Diploma or trade certificate	45		19.9	
	Degree	69		30.5	
	Degree with honours/post-graduate diploma	37		16.4	
	Masters degree	29		12.8	
	PhD	4		1.8	
	Other	5		2.2	
	Total N	226			

Table 2.2

Employment Sector and Employment Contract Frequencies and Percentages

		Frequency	Percent
Employment Sector	Consulting	21	9.3
	Education	17	7.5
	Finance	65	28.8
	Government/Public Sector	23	10.2
	Sales	13	5.8
	Other	87	38.5
	Total N	226	
Employment Contract	Permanent	205	91.9
	Fixed Term	12	5.4
	Casual	6	2.7
	Total N	223	

Procedure

Twelve Human Resource Managers were sent letters via email inviting their organisation to participate in the research. The letter (Appendix A) identified the researcher and research supervisors, briefly explained the research aims and its potential benefits, as well as what participation in the research would involve. The letter also explained that upon completion of the research their organisation would receive a summary of the results. Due to the anonymity of the research it was made clear that no organisations or individuals would be identified in the summary of the results or anywhere else in the research. In one instance, rather than an invitation letter being sent to an HR manager an application was submitted for the survey to be sent out via email to members of a professional membership organisation. This application included all the information that was part of the invitation letter.

Those who responded to the letter/application and expressed an interest in having their organisation participate in the research were emailed a link to the survey so they could make a final decision about participation. In the case of the application to the professional membership organisation, once the application had been approved the organisation put together an email from the information included in the application form. Once the researcher had approved this email it

was sent out to members of the professional organisation who had previously agreed to take part in the organisations' research stream. In all other cases, once the HR manager had confirmed that they were willing to send the link out to their employees, a discussion was held around how many employees they would send it to, when it would be sent out, and if a deadline date for completing the survey would be included in the email. The researcher then sent the HR manager an invitation email to forward on to their employees. The invitation email (Appendix B) briefly introduced the researcher and the research, stated that the organisation had given permission for its employees to take part in the survey, and included a link to the survey. HR managers were invited to add their own blurb to the top of the email before sending it out to employees.

Once employees had received the invitation email they could follow the link to the survey website. The link initially took them to an information page about the research. This information page (Appendix C) included details about what the survey involved, why the research was important, who could do the survey, what participants' rights were, and contact details of the researcher and research supervisors. After reading the information page individuals could choose to leave the survey or to go on to the next page which included the survey questions. Individuals remained able to leave the survey at any time, and had the option of coming back and continuing to complete the survey for up to one week. The researcher contacted the HR manager a week after the invitation email was sent out to employees and suggested sending out a reminder email. This reminder email was similar to the first email sent out, with a slight change to indicate that it was a reminder. Once again the reminder email was sent to the HR manager who then forwarded this on to employees.

Measures

Protean career. To measure protean career attitudes the Protean Career Attitudes Scale was used with permission from the author. This scale, and all others used in this study, can be found in Appendix D. The Protean Career Attitudes Scale (Briscoe et al., 2006) includes two smaller scales. The first measures self-directed career management and the second measures values-driven career management. In total, the scale consists of 14 items, all of which are responded to on a 5-point scale from 'to little or no extent' (1) to 'to a great extent' (5). Items 1-8 measure self-directed career management and items 9-14

measure values-driven career management. A sample item in the self-directed career management scale is “I am responsible for my success or failure in my career”. A sample item for the values-driven career management scale is “What I think about what is right in my career is more important to me than what my company thinks”. Briscoe et al. (2006) found the self-directed scale had a coefficient alpha of .75 and the final values-driven scale had a coefficient alpha of .70.

In this study, when exploratory factor analysis (EFA) was conducted on the Protean Career Attitude Scale using the principal axis factoring method, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .84 and the Bartlett’s test of sphericity was significant, suggesting that it was appropriate to continue. Four factors with eigenvalues greater than one were extracted, however after examining the scree plot (Appendix E) a two factor solution was decided upon. These two factors explained 40% of the total variance. Rotation of the two factors was carried out using the oblique oblimin method which converged in five iterations. The factor loading table (Appendix F) was inspected and factor loadings greater than .30 were considered significant. Items 1-8 (the self-directed scale items) all loaded significantly on to factor one, self-directed career management. Item nine “I navigate my own career based on my personal priorities, as opposed to my employer’s priorities” loaded significantly on to factor one (self-directed career management) rather than factor two (values-driven career management). Based on this it was decided to include this item as part of the self-directed career management scale, giving it nine items rather than eight. Item 10 “It doesn’t matter much to me how other people evaluate the choices I make in my career” cross-loaded on to both factors and so it was excluded. This left the values-driven scale with four items, each of which loaded significantly on to factor two. As a result, both scales differ slightly from those developed and used by Briscoe et al. (2006). With the final 13 items the two factors were inter-correlated at .38.

The final self-directed scale had a Cronbach’s alpha coefficient of .82 and the final values-driven scale had a Cronbach’s alpha coefficient of .73. Both scales were negatively skewed with skew values of -.48 (self-directed) and -.53 (values-driven). To decide whether skew values were significant enough to conduct transformations, the skew value was compared to the standard error of skew and if

the skew value exceeded this by more than a ratio of 2:1 it was considered to be skewed. In order to reduce the impact of skew, transformations were then conducted. Firstly scores on each variable were reflected by creating a constant (adding one to the largest score in the distribution) and then subtracting each score from that constant (Tabachnick & Fidell, 2001). Square root transformations, which are recommended by Tabachnick and Fidell (2001) for moderately skewed variables, were then carried out on both variables. It was found that the transformation did not improve any of the correlations between self-directed career management and other variables with which it was expected to correlate. The same was found for correlations between values-driven career management and based on this, the untransformed variables were used for all further analysis.

Boundaryless career. To measure the boundaryless career attitude the Boundaryless Career Attitudes Scale (Briscoe et al., 2006), consisting of the boundaryless mindset scale and the organisational mobility preference scale, was used with permission from the author. The scale is responded to on a 5-point scale from 'to little or no extent' (1) to 'to a great extent' (5). Items 1-8 measure boundaryless mindset and items 9-13 measure organisational mobility preference and are negatively scored. A sample item of the boundaryless mindset scale is "I seek job assignments that allow me to learn something new". A sample item from the organisational mobility preference scale is "If my organisation provided lifetime employment, I would never desire to seek work in other organisations". Briscoe et al. (2006) found that the boundaryless mindset scale had a reliability coefficient of .87 while the mobility preference scale had a reliability coefficient of .74.

When EFA was conducted in this study using the principal axis factoring method the KMO measure of sampling adequacy was .88 and Bartlett's test of sphericity was significant. As expected, two factors with eigenvalues greater than one were extracted, and the scree plot (Appendix E) confirmed that a two factor solution was appropriate. These two factors explained 58% of the total variance. Oblique oblimin rotation of the two factor solution converged in three iterations. After rotation of the two factor solution each of the items in the boundaryless mindset scale loaded significantly on to factor one (boundaryless mindset) and each of the items in the mobility preference scale loaded significantly on to factor

two (organisational mobility preference). The two factors had a correlation of .29. See Appendix F for all factor loadings tables.

The final boundaryless mindset scale had a coefficient alpha of .91 and the final organisational mobility preference scale had a coefficient alpha of .87. The boundaryless mindset scale had a skew value of -.30 which, when compared to the standard error of skew, was not considered to be significantly skewed. The organisational mobility preference scale had a moderate negative skew (-.78) and so scores on this variable were reflected and a square root transformation was conducted. It was found that transforming scores did not improve the correlations between organisational mobility preference and other variables and so the untransformed variable was used for all further analyses.

Proactive personality. In order to measure proactive personality, the Proactive Personality Scale developed by Bateman and Crant (1993) was used. The scale consists of 17 items, all of which aim to assess proactive personality, and are scored on a 7 point Likert scale from strongly agree (1) to strongly disagree (7) (Bateman & Crant, 1993). Item three (“I tend to let others take the initiative to start new projects”) is negatively scored. A sample item from the scale is “I am constantly on the lookout for new ways to improve my life”. Bateman and Crant (1993) found that the scale had a coefficient alpha of .89 and an average inter-item correlation of .32. Test-retest reliability was found to be .72 over a three-month period and convergent validity was demonstrated by the scale’s correlations with conscientiousness, extraversion and the needs for achievement and dominance (Bateman & Crant, 1993).

In this study, when EFA was conducted using the principal axis factoring method the KMO measure of sampling adequacy was .91 and Bartlett’s test of sphericity was significant. Three factors were extracted with eigenvalues greater than one. However, after examining the scree plot (Appendix E) a one factor solution was decided upon, as expected. This factor (proactive personality) explained 41% of the total variance. When a one factor solution was specified, all of the items loaded significantly on to the one factor (Appendix F). The scale had an alpha coefficient of .91. The scale had a moderate negative skew (-.67) so scores were reflected and a square root transformation was carried out. After transforming the variable no improvement was found in correlations between

proactive personality and other variables. Based on this the untransformed variable was used for all further analyses.

Openness to experience. To measure openness to experience the 10-item International Personality Item Pool (IPIP) representation of Costa and McCrae's (1992) openness to experience scale was used (Goldberg, 1996). The IPIP is a scientific collaboratory for the development of measures of personality and other individual differences. Scales are accessed from the IPIP website, which aims to develop and continually refine a set of personality inventories, with all items in the public domain for both scientific and commercial purposes (Goldberg, 1996). The IPIP website contains psychometric characteristics of the current set of IPIP scales, keys for scoring the current set of scales, and the total set of IPIP items (Goldberg et al., 2006). The openness to experience scale from this website is one of the scales labelled "NEO PI-R Domains" designed to measure constructs similar to the five major domains in the NEO Personality Inventory (NEO PI-R). For this study the 10-item scale was chosen for efficiency purposes. The scale uses a 5 point response scale from 'very inaccurate' (1) to 'very accurate' (5). Items 6-10 are negatively scored. Sample items include "I have a vivid imagination" and "I am not interested in abstract ideas" (negatively scored). The scale has a coefficient alpha of .82 indicating its reliability and a mean inter-item correlation of .30 (Goldberg, 1996).

In this study, when EFA was conducted using the principal axis factoring method, the KMO measure of sampling adequacy was .74 and Bartlett's Test of Sphericity was significant. Three factors were extracted with eigenvalues greater than one. After examining the scree plot (Appendix E) a one factor solution was decided upon (as expected). This one factor (openness to experience) explained 32% of the total variance. When a single factor solution was imposed, nine out of the ten items loaded significantly on to this factor (Appendix F). Item four "I carry the conversation to a higher level" had an insignificant loading (.23) and was excluded from the scale leaving a total of nine items. The final scale had a coefficient alpha of .80. Its skew value of -.25 was not considered to be significantly skewed (when compared to the standard error of skew).

Career stage. To measure the stage of career a person was currently at, the Adult Career Concerns Inventory (ACCI) short form, developed by Perrone, Gordon, Fitch and Civiletto (2003) was used with permission from the author. The

scale was derived from the ACCI-Long Form which was designed to assess which developmental stage a person is currently at in relation to their career. The ACCI-Long Form is made up of 4 sub-scales, each of which represents a different stage of career. Perrone and colleagues (2003) argued that although reliable (Cronbach's alpha ranges from .81-.95) and valid, the ACCI-Long Form with a total of 60 items was too time-consuming for many purposes. To reduce the length of the questionnaire they selected the item from each subscale that had the highest factor loading to represent that sub-stage in the ACCI-Short Form. This resulted in 12 items on the same 5-point response scale (from no concern to great concern) as the ACCI-Long Form. Items 1-3 measure exploration, items 4-6 measure establishment, items 7-9 measure maintenance and items 10-12 measure disengagement, with each item representing a sub-stage. Cronbach's alpha coefficients ranged from .73 to .87, indicating adequate reliability, and a t-test showed no significant differences between the long and short versions of the ACCI (Perrone et al., 2003).

In this study, when EFA was conducted using the principal axis factoring method the KMO measure of sampling adequacy was .88 and Bartlett's Test of Sphericity was significant. Three factors were extracted with eigenvalues greater than one. The three factors explained 70% of the total variance. Oblique oblimin rotation of the three factor solution required more than 25 iterations, indicating that the rotated solution was not interpretable. Based on this, and that three factors had been extracted when a four factor solution was expected, the scale was excluded from further analysis.

Other items. To assess inter-organisational mobility, respondents were asked the number of times that they had changed employer voluntarily and involuntarily since entering the workforce, as well as the number of years passed since entering the workforce. The total number of employer changes was then divided by the total number of years in the workforce to establish a measure of inter-organisational or employer mobility (Valcour & Ladge, 2008). The number of occupations worked in since entering the workforce and number of countries worked in since entering the workforce were also included, and each was divided by total years in the workforce to provide measures of occupational and geographic mobility. Number of positions held within current organisation and length of time working for current organisation were included to give an idea of

intra-organisational mobility (number of positions held divided by years working for organisation). Length of time working in current occupation was included to give an idea of current career stage. All survey items are attached in Appendix D.

Analysis

Missing data imputation. In cases where participants had not responded to a particular item within a scale, the regression imputation technique was used to estimate the missing data value. In this method, a regression equation is created in which the dependent variable is the item with missing data and the independent variables are the other items in the scale without any missing data. The equation is then used to impute any missing values (Roth, Switzer, & Switzer, 1999). This technique was shown by Roth, Switzer and Switzer (1999) to be an effective method for reproducing results of data sets with missing data. In the current study, only 0.4% of data values were missing, however there were missing values in 25.6% of cases. Therefore by imputing missing values a significant amount of data was retained that would have been taken out if listwise deletion was conducted. Regression was chosen as the imputation method because using regression to impute missing values acknowledges individual differences when creating estimates and Roth et al. (1999) found good empirical results for this technique.

Chapter Three – Results

In this chapter, descriptive statistics for all variables are provided, followed by the correlations between variables. The results of hypothesis testing procedures are then given. Following this, the results of multiple regressions for prediction of the protean and boundaryless career attitudes are presented. Finally the results of supplementary analyses are provided.

Descriptives

Descriptive statistics for all variables are included in Table 3.1.

Table 3.1

Descriptive Statistics

	Mean ^a	SD	Skew ^b	Alpha
1. Self-Directed Career Management	3.98	0.56	-0.48	0.82
2. Values-Driven Career Management	3.80	0.70	-0.53	0.73
3. Boundaryless Mindset	3.81	0.74	-0.30	0.91
4. Organisational Mobility Preference	3.75	0.87	-0.78	0.87
5. Proactive Personality	5.33	0.73	-0.67	0.91
6. Openness to Experience	3.77	0.63	-0.25	0.80
7. Years in workforce	20.29	11.38		
8. Years in occupation	8.89	8.36		
9. Voluntary employer changes	4.78	4.04		
10. Involuntary employer changes	0.44	0.84		
11. Total employer changes	5.22	4.28		
12. Years with organisation	6.44	7.69		
13. Positions with organisation	2.69	3.20		
14. Number of occupations	3.69	2.38		
15. Number of countries	1.75	1.00		
16. Inter-Organisational Mobility	0.43	1.19		
17. Intra-Organisational mobility	0.93	1.64		
18. Occupational Mobility	0.39	1.28		
19. Geographic Mobility	0.19	0.41		

Note. N = 218-226

^a Means reported for variables 1-6 are derived from mean scores across items

^b Standard error of skew = .162

Respondents had been in the workforce for between 6 months and 46 years, with a mean of 20.29 years, and had been in their current occupation for between one month and 46 years, with a mean of 8.89. Two hundred and twenty respondents answered the question on how many times they had voluntarily changed employer, but only 123 answered how many times they had involuntarily changed employer. Based on this, the assumption was made that those people who had indicated voluntary employer changes but not any involuntary employer changes, had never involuntarily changed employer, and a zero was recorded. The same procedure was followed if respondents had made a response for the number of involuntary employer changes but not the number of voluntary employer changes. After filling in these missing data points it was found that respondents had voluntarily changed employers up to 32 times and had involuntarily changed employers up to four times, with combined employer changes ranging from zero to 32 with a mean of 5.22. Respondents had spent between one month and 46 years with their current organisation with an average of 6.44 years, and had held between one and 30 positions within that organisation, with an average of 2.69. Respondents had worked in up to 13 occupations with a mean of 3.69, and in up to six countries, with a mean of 1.75.

Correlations

Correlations were calculated between all variables and are included in Table 3.2. Self-directed career management and values-driven career management correlated positively with each other, as did mobility preference and boundaryless mindset (Table 3.2). Self-directed career management also correlated positively with mobility preference and boundaryless mindset. Values-driven career management correlated positively with boundaryless mindset but not with mobility preference. These correlations suggest that each of the career attitudes measured by these scales are related yet separate constructs, except for values-driven career management and mobility preference, which were unrelated to each other. Proactive personality and openness to experience correlated positively with each other suggesting that these are related yet distinct constructs.

Table 3.2

Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self Directed													
2. Values Driven	.36**												
3. Boundaryless Mindset	.39**	.23**											
4. Mobility Preference	.19**	.04	.25**										
5. Proactive	.42**	.32**	.50**	.10									
6. Openness To Experience	.20**	.15*	.24**	.12	.15*								
7. Age	.11	.17*	.05	-.09	.03	.14*							
8. Years in workforce	.05	.18**	.03	-.12	.04	.09	.95**						
9. Inter-Organisational Mobility	.05	-.14*	.07	-.02	.04	.09	-.21**	-.27**					
10. Intra-Organisational Mobility	-.03	.03	.00	.02	-.14*	-.07	-.34**	-.31**	.21**				
11. Occupational Mobility	.03	-.22**	.06	-.09	.09	.11	-.22**	-.29**	.72**	.20**			
12. Geographic Mobility	.02	-.14*	.13	.00	.08	.04	-.41**	-.48**	.72**	.37**	.84**		
13. Years in occupation	.03	.10	-.07	-.04	-.05	.10	.54**	.52**	-.13	-.14*	-.17*	-.24**	
14. Education Level	.28**	.11	.18**	.17*	.14*	.19**	-.04	-.16*	.12	.04	.18**	.14*	-.08

Note. N = 198 - 226.

* Significant at the .05 level. ** Significant at the .01 level.

Hypothesis Testing

Gender differences. Hypothesis 1a, that women would score more highly than men on self-directed career management, was not supported, with men scoring a mean of 35.50 and women scoring a mean of 35.92 ($t = -.59$, $df = 223$, $p = ns$). Hypothesis 1b, that women would score more highly than men on values-driven career management, was not supported, with men ($x = 15.84$) scoring significantly higher than women ($x = 14.88$) on values-driven career management ($t = 2.442$, $df = 223$, $p < 0.05$). Hypothesis 2a, that women would score more highly than men on boundaryless mindset, was not supported, with men scoring on average 30.50 and women scoring on average 30.48 ($t = 0.05$, $df = 223$, $p = ns$). Hypothesis 2b, that women would score less highly on mobility preference than men, was not supported, with men scoring on average 18.19 and women scoring on average 19.03 ($t = -1.36$, $df = 223$, $p = ns$).

Age differences. Hypothesis 3a, that age would be negatively related to self-directed career management, was not supported ($r = .11$). Hypothesis 3b, that age would be positively related to values-driven career management, was supported ($r = .17$). Hypothesis 4a, that age would be negatively related to mobility preference, was not supported ($r = -.09$).

Education level differences. Hypotheses 5a was supported, as individuals with higher levels of education were found to be more self-directed in their career attitudes. A one-way ANOVA was conducted and indicated that self-directed career management did differ across education levels ($F_{(7, 218)} = 3.63$, $p < 0.01$). A post-hoc comparison, Tukey's HSD, was used to determine which groups had higher levels self-directed career management. It was found that participants with a PhD had higher levels of self-directed career management than people with some high school and high school graduates ($p < .05$). It was also found that people with a Masters degree and a post-graduate diploma/honours had higher levels of self-directed career management than high school graduates ($p < .05$). Hypothesis 5b, that individuals with higher levels of education would be more values-driven in their career attitudes, was not supported. A one-way ANOVA indicated that no significant differences existed between education levels on values-driven career management ($F_{(7, 218)} = 1.96$, $p = ns$).

Hypotheses 6a was supported, as individuals with higher education levels were found to have higher levels of boundaryless mindset. A one-way ANOVA indicated that boundaryless mindset did differ across education levels ($F_{7, 218} = 2.58, p < .05$). A post-hoc comparison, Tukey's HSD, found that individuals with a degree, a degree with honours/post graduate diploma or a Masters degree had significantly higher levels of boundaryless mindset than high school graduates ($p < .05$). Hypothesis 6b, that individuals with higher levels of education would have higher levels of mobility preference, was partially supported. When a one-way ANOVA was conducted between education level and organisational mobility preference it was found that the variances across groups were not equal (Levene statistic = 3.11, $p < .05$). Because the variances differed across groups, the Brown-Forsythe Test was used to adjust the degrees of freedom. After adjusting the degrees of freedom it was confirmed that despite the different variances, organisational mobility preference did differ across groups (Brown-Forsythe = 3.09, $p < .05$). However, a Tamhane post-hoc comparison did not indicate any significant differences and it could therefore not be determined between which groups the differences existed. Despite this, as mobility preference and education level correlated positively with each other (.17) it can be confirmed that the two are positively related.

Proactive personality. Hypotheses 7a and 7b were supported, as self-directed career management and values-driven career management correlated positively with proactive personality ($r = .42$ for self-directed career management and $r = .32$ for values-driven career management). Hypothesis 8a was also supported, as boundaryless mindset correlated positively with proactive personality ($r = .50$). Hypothesis 8b, that proactive personality would correlate positively with mobility preference, was not supported ($r = .10$).

Openness to experience. Hypotheses 9a and 9b were supported as openness to experience correlated positively with self-directed career management ($r = .20$) and values-driven career management ($r = .15$). Hypothesis 10a, that boundaryless mindset would correlate positively with openness to experience, was also supported ($r = .24$). Hypothesis 10b, that mobility preference would correlate positively with openness to experience, was not supported ($r = .12$).

Inter-organisational mobility. Hypothesis 11, that inter-organisational mobility would correlate positively with mobility preference, was not supported ($r = -.02$).

Multiple Regression

In order to find out which variables had the most predictive power for each of the career attitudes, multiple regression analyses were conducted. Multiple regression was carried out to predict individuals' scores on each of the career attitudes based on their age, gender, education level, openness to experience and proactive personality. In order to control for possible demographic differences, demographic variables were entered first, followed by openness to experience and proactive personality.

Self-directed career management. The linear combination of all five predictors was significantly related to individual's scores on self-directed career management ($F_{(5, 180)} = 12.75, p < .001, R^2 = .26$). The percentage of total variance in self-directed career management accounted for by this model was 26%. After controlling for demographic variables, proactive personality was a significant predictor, but not openness to experience. Regression coefficients are included in Table 3.3 below.

Table 3.3

Regression Coefficients for Self-Directed Career Management

Predictors	B	Std. Error	Beta	t
<u>Step One</u>				
Age	.06	.03	.12	1.80
Gender	.28	.71	.03	.39
Education Level	.75	.23	.22	3.32**
<u>Step Two</u>				
Proactive Personality	.15	.03	.37	5.69**
Openness to Experience	.09	.06	.09	1.39

Note. ** Significant at the .01 level.

Values-driven career management. The linear combination of all five predictors was significantly related to individual scores on values-driven career management ($F_{(5, 180)} = 6.84, p < .001, R^2 = .16$). The percentage of total variance in values-driven career management accounted for by this model was 16%. After controlling for demographic variables, proactive personality was a significant predictor, but not openness to experience. Regression coefficients for variables are included in Table 3.4 below.

Table 3.4

Regression Coefficients for Values-Driven Career Management

Predictors	B	Std. Error	Beta	t
<u>Step One</u>				
Age	.03	.02	.13	1.81
Gender	-.68	.40	-.12	-1.70
Education Level	.13	.13	.07	1.04
<u>Step Two</u>				
Proactive Personality	.06	.02	.29	4.16**
Openness to Experience	.05	.04	.10	1.36

Note. ** Significant at the .01 level

Boundaryless mindset. The linear combination of all five predictors was significantly related to individual's scores on boundaryless mindset ($F_{(5, 180)} = 15.29$, $p < .001$, $R^2 = .30$). The percentage of total variance in boundaryless mindset accounted for by this model was 30%. After controlling for demographic variables, proactive personality and openness to experience were both significant predictors. Regression coefficients for all predictors are included in Table 3.5 below.

Table 3.5

Regression Coefficients for Boundaryless Mindset

Predictors	B	Std. Error	Beta	t
<u>Step One</u>				
Age	.01	.03	.02	.31
Gender	-.79	.80	-.06	-1.00
Education Level	.05	.25	.01	.18
<u>Step Two</u>				
Proactive Personality	.22	.03	.48	7.48**
Openness To Experience	.19	.07	.18	2.80*

Note. * Significant at the .05 level. ** Significant at the .01 level

Organisational mobility preference. The linear combination of all five predictors was not significantly related to individual's scores on organisational mobility preference ($F_{(5, 180)} = 1.00$, $p = ns$, $R^2 = .03$ adjusted $R^2 = .00$). After controlling for demographic variables, neither proactive personality nor openness to experience were significant predictors. Regression coefficients for all predictors are included in Table 3.6 below.

Table 3.6

Regression Coefficients for Organisational Mobility Preference

Predictors	B	Std. Error	Beta	t
<u>Step One</u>				
Age	-.02	.03	-.06	-.78
Gender	.58	.68	.06	.85
Education Level	.24	.22	.08	1.11
<u>Step Two</u>				
Proactive Personality	.03	.03	.074	.98
Openness To Experience	.04	.06	.046	.60

Supplementary Analyses

As the Protean Career Attitude Scale and the Boundaryless Career Attitude Scale have not been used widely in research to date, it was important to explore in this study whether any non-hypothesised relationships existed. Some supplementary analyses were conducted in order to provide a clearer picture of these constructs and the variables that may be related to them.

Values-driven career management was found to be positively correlated with years in the workforce, and negatively related to employer mobility, occupational mobility and geographic mobility. Proactive personality and intra-organisational mobility were negatively correlated. Age was negatively correlated with employer mobility, intra-organisational mobility, occupational mobility and geographic mobility, as were years in the workforce. All types of mobility (employer, intra-organisational, occupational and geographic) were positively correlated with each other. Education level correlated positively with occupational and geographic mobility.

Employment contract. One-way ANOVAs were conducted and it was found that no significant differences existed across employment contract groups on self-directed career management, values-driven career management or mobility preference. A difference did exist between employment contract groups in boundaryless mindset ($F_{(2, 220)} = 4.86, p < .01$). Tukey's HSD indicated that those on a casual contract had significantly higher levels of boundaryless mindset than those on a permanent contract ($p < .05$).

Employment sector. A one-way ANOVA confirmed that differences did exist between employment sectors in self-directed career management ($F_{(10, 215)} = 3.47, p < .001$). A post-hoc comparison, Tukey's HSD, found that those in the consulting sector and the education sector scored significantly higher on self-directed career management than those in the transport sectors ($p < .05$). Those in the consulting sector also scored significantly higher than those in finance ($p < .05$). No differences existed between employment sectors in values-driven career management ($F_{(10, 215)} = 1.77, p = ns$) or organisational mobility preference ($F_{(10, 215)} = 1.69, p = ns$). Differences did exist between employment sectors and boundaryless mindset ($F_{(10, 215)} = 1.90, p < .05$). Tukey's HSD indicated that those in the consulting sector scored more highly in boundaryless mindset than those in transport/logistics ($p < .05$).

Chapter Four – Discussion

In this chapter, the findings of this study are discussed. Firstly the findings that relate to the measures themselves are explained, then the findings that relate to the hypotheses, followed by some supplementary findings. The practical implications of these findings are then explored, followed by areas for future research, and subsequently the strengths and limitations of this study. The chapter is completed with an overview of the conclusions that can be reached from this research.

Overview of Findings

Measures. This study is the first to use all four measures of protean and boundaryless career attitudes, as developed by Briscoe et al. (2006), in a New Zealand sample. The findings therefore give an insight into how a range of variables relate to the career attitudes that New Zealanders hold. This study is also one of only three known studies to use all four measures of the boundaryless and protean career attitudes since their development, and it is therefore worth exploring how the measures related to each other. It was found that self-directed career management and values-driven career management correlated moderately and positively with each other, which supports previous findings of Briscoe et al. (2006) and Briscoe and Finkelstein (2009), and suggests that the two attitudes are distinct but related constructs. The same applies for the finding that boundaryless mindset and organisational mobility preference were positively and moderately correlated. Self-directed career management and values-driven career management also correlated positively and to a moderate extent with boundaryless mindset, as did self-directed career management with organisational mobility preference. This also supports previous findings by Briscoe et al. and Briscoe and Finkelstein, and suggests that the protean and boundaryless careers are separate but related constructs.

The finding that organisational mobility preference and values-driven career management did not relate to each other supports the finding by Briscoe et al (2006) that organisational mobility preference did not necessarily correlate with either the protean career attitudes or the boundaryless mindset, depending on the sample. However, in their other studies they found that mobility preference did correlate with all three career attitudes, as did Briscoe and Finkelstein (2009). As organisation mobility preference and values-driven career management did not correlate in this

study, some support was provided for the notion that mobility preference does not define the protean career. In particular, this suggests that one aspect of the protean career, namely values-driven career management, may not relate to an individual's attitude towards being mobile across organisational boundaries. However, it is worth highlighting that in this study the values-driven career management scale was shortened in length and items were removed. This was done because two of the items originally included in the values-driven career management scale did not load appropriately on to the expected factor and were therefore removed. It is therefore difficult to make direct comparisons between this study and others that have used the entire values-driven career management scale.

Hypotheses. The results of hypothesis testing procedures are discussed in the following section. Firstly the results that relate to demographic variables are discussed, then personality variables, and finally career path variables.

Demographic variables. The first research question was “do protean and boundaryless career attitudes differ across demographic groups in a New Zealand sample?” Although it has been assumed that the traditional career model is more applicable to men than to women, this assumption was not supported in this study. In terms of self-directed career management, no evidence was found for differences between men and women. This finding is not in line with the idea that holding protean career attitudes is advantageous to women due to the extra family variables that are involved in women's career choices (Valcour & Ladge, 2008) or the finding by McDonald et al (2005) that women were more likely to have shifted towards protean careers than men. This finding does, however, support those of Briscoe et al (2006), Segers et al (2008), Park (2009a, 2009b) and Briscoe and Finkelstein (2009), who found no gender differences in self-directed career management. It could therefore be that, although the protean career as it was initially conceptualised seems to fit with women's career paths better than men's, this may have been more to do with aspects of the concept such as flexibility and adaptability, both of which would be an advantage to women who take career breaks in order to have children or be at home with their family. It seems that at least the self-directed career management component of this protean career model is equally likely to occur in men and women.

In terms of values-driven career management, the finding that men scored more highly on this attitude than women is in direct opposition to the finding by Segers et

al (2008) that women scored more highly than men on values-driven career management. Segers et al did, however, use career motivations to measure values-driven attitudes, rather than the scale used in this study. Yet even in those studies that did use the values-driven career management scale, no difference was found between men and women (Briscoe & Finkelstein, 2009; Briscoe et al., 2006) and thus the result of this study is unexpected. This gender difference could be due to the fact that a shorter version of the values-driven scale was used than that used in other studies, or because significantly more women than men took part in this study, limiting the extent to which this finding can be extended to other individuals. Nevertheless, it should also be noted that only two known studies (Briscoe & Finkelstein, 2009; Briscoe et al., 2006) have previously used this scale. This finding could therefore be accurate and men may be more inclined than women to be values-driven in their career management. However, support from other studies is required before a definitive conclusion can be reached.

In terms of the boundaryless career it was hypothesised that women would score more highly than men on boundaryless mindset and less highly than men on mobility preference. Neither of these hypotheses was supported, with no differences found between men and women in either boundaryless career attitude. These findings do not support those of Segers et al (2008), who found that women scored more highly on motivators linked to psychological mobility than men, while men scored more highly on motivators linked to physical mobility than women. They also do not align with the finding of Forret et al (2010) that women were more likely than men to be psychologically mobile in times of unemployment. It is however in line with findings by Briscoe et al (2006) that boundaryless mindset did not correlate with gender, and Briscoe et al (2006) and Briscoe and Finkelstein's (2009) finding that gender did not correlate with mobility preference.

It can therefore be assumed from these results that, at least in the present study, women and men do not differ in their attitudes towards psychological or physical mobility in their careers. This suggests that although previous studies have found men to be more physically mobile than women in their careers (Ituma & Simpson, 2009), perhaps this difference in actual mobility does not translate into different attitudes towards mobility. Although women may be likely to be more constrained in their physical mobility by family demands such as children and a husband's career taking

priority, women appear to be equally as likely as men to want to be mobile across organisational boundaries. One way to further investigate this would be to look at family variables such as marital status and number of dependents to see the impact these variables have on men's and women's physical mobility, and whether any impact extends to career attitudes as well. It could also be that as inter-organisational mobility has become the norm in careers, any gender differences that previously existed have evened out. Findings by Ackah and Heaton (2004) that male and female careers have recently become more similar would support this idea. It is still surprising however that men and women did not differ in this study in boundaryless mindset/psychological mobility. Perhaps the changes to organisational structures have meant men have had to adjust and undertake more collaboration and relationship building in their careers, which according to Ackah and Heaton (2004) have traditionally required more feminine traits. Both collaboration and relationship building are key components of psychological mobility, and therefore if men are engaging in them more frequently, this may explain why men appear to be as psychologically mobile in their careers as women.

In terms of age and the protean career, the hypothesis that age would be negatively related to self-directed career management was not supported. The finding that age did not relate to self-directed career management is not in line with the findings by Segers et al (2008) that as people age they are less driven to manage their own careers. However, it is in line with findings by Briscoe et al (2006) and Briscoe and Finkelstein (2009) that self-directed career management did not relate to age. This therefore suggests that when this measure of self-directed career management is used, there is no consistent relationship with age. Consequently, it can be said that age does not necessarily impact on how likely a person is to take a self-directed approach to their career management. Although it has been argued that as people age they are less likely to voluntarily engage in self-development at work, and less likely to want to be in charge of their own career development (Segers et al., 2008; Warr & Birdi, 1998), with the extensive changes to careers and the reduction in paternalistic organisational structures, perhaps people no longer have a choice about whether or not to take a self-directed approach to career management, no matter what age they are. In line with this, it has been argued that the protean career concept over-emphasises the idea of agency and free will in careers and that organisations still have

an obligation to provide their employees with assistance in their career development (Dany, 2003; Van Buren, 2003). However, perhaps this advice has not been taken on board and, with the changes to organisational structures, organisations are no longer providing individuals with assistance in their career development, leading individuals to take a self-directed approach at all ages. As it has been found that self-directed career management improves with career counselling (Verbruggen & Sels, 2008) it can be assumed that self-directedness can be learnt, and that perhaps individuals have had to do so.

The hypothesis that age would be positively related to values-driven career management was supported. This finding is in line with the assumption that as people age their desire to reinforce their own identity and up-hold their self-image increases (Kanfer & Ackerman, 2004). It is also in line with the finding by Segers et al (2008) that as people age their motivation to be values-driven in their career increases, and the finding by Briscoe et al (2006) that age correlated positively with values-driven career management. It appears that as people age they become more values-driven in their career management, which most likely is linked to a general strengthening in peoples' desire to uphold their values and image as they get older. As expected, age was not related to boundaryless mindset. This is in line with findings by Briscoe et al (2006), Segers et al (2008) and Briscoe and Finkelstein (2009) that age did not relate to psychological mobility or boundaryless mindset. It seems that age is not connected with the extent to which individuals want to engage in collaborative relationships that cross boundaries during their careers.

The hypothesis that age would be negatively related to organisational mobility preference was not supported. No relationship was found between age and the extent to which individuals desire to physically cross organisational boundaries in their careers. This finding does not support those of Segers et al (2008) that as people age, motivations around physical mobility decline, or the finding by Currie, Tempest and Starkey (2006) that while people who belong to Generation X are comfortable with increasing occupational mobility, people of older generations feel threatened by it, and remain tied to the idea of traditional career paths. This finding is also not consistent with the argument that as people age they become more concerned with job security and are therefore less likely to want to be physically mobile in their careers (Segers et al., 2008). It is however consistent with findings by Briscoe et al (2006)

and Briscoe and Finkelstein (2009) that age does not relate to individuals' organisational mobility preference. Perhaps, as suggested above, people of all ages have adjusted to the changing work environment and have therefore become more open to the possibility of physical mobility. While it is assumed, and has been previously found by Cheramie, Sturman and Walsh (2007), that age is negatively related to employer movement, this may relate more to the fact that it is harder for older workers to find new employment than it is for younger workers. Such restrictions may limit the extent to which older workers can cross organisational boundaries in their careers, but may not alter the extent to which they want to cross those boundaries. Support was found for this assumption in this research, with all types of mobility (inter-organisational, intra-organisational, occupational and geographic) being negatively correlated with age.

The finding that individuals with higher levels of education were more likely to take a self-directed approach to their career management supports the finding by Segers et al (2008) that having a higher level of education was positively correlated with motivations linked to self-directed career management. When examined more closely, it was found that participants with a PhD had higher levels of self-directed career management than people with some high school and high school graduates, and participants with a Masters degree or a post-graduate diploma/Honours degree had higher levels of self-directed career management than high school graduates. This indicates that individuals who have graduate level qualifications tend to be more self-directed in their career management than those with high school education.

The hypothesis that individuals with higher education levels would have higher levels of the values-driven career attitude was not supported, with no differences found between education level groups. This indicates that how values-driven an individual is in their approach to career management is not related to how educated they are. Although Segers et al (2008) did find that individuals with a degree were more likely to be values-driven in their careers, they did not find any correlation between values-driven career management and education level. The finding in this study therefore reinforces the finding that the two do not correlate with each other.

The hypothesis that individuals with higher education levels would have higher levels of boundaryless mindset was supported, and it was found that individuals with a degree, degree with honours/post graduate diploma or masters had significantly

higher levels of boundaryless mindset than high school graduates. This suggests that people with higher levels of education are more open to being psychologically mobile in their careers and are more likely to want to work with people beyond their immediate organisational boundaries. This supports the finding by Segers et al (2008) that people who were more highly educated were more likely to exhibit motivations linked to psychological mobility. This also supports the finding in Study One by Briscoe et al (2006) that boundaryless mindset increased between a sample of undergraduates and a sample of MBA students, and increased again between a sample of MBA students and a sample of fully qualified executives.

The hypothesis that individuals with higher levels of education would have higher levels of mobility preference was partially supported. The two were positively correlated, indicating that as education levels increased, mobility preference also increased, but no specific differences between education level groups were found. This finding supports that of Segers et al (2008) that individuals who were more highly educated were more likely to show motivations linked to physical mobility. It does not support findings by Briscoe et al (2006) that organisational mobility preference scores were stable across samples from different educational groups. This finding indicates that people who are more highly educated are more likely to want to be physically mobile and cross organisational boundaries in their careers. This is in line with previous findings that individuals with higher education levels feel more positive about the boundaryless career (Currie et al., 2006). This relationship may exist due to the increases in salary levels that are achieved through employer mobility (Cheremie et al., 2007). It may also be that people with higher education levels have more employment opportunities and feel less threatened by the loss of job security that can occur through physical mobility (Segers et al., 2008). This finding supports the argument that the boundaryless career may be more suited to people who are more highly educated (Van Buren, 2003).

Personality variables. The second research question in this study was “do protean and boundaryless career attitudes relate to personality variables in a New Zealand sample?” Both components of the protean career were related to personality variables, as was the boundaryless mindset component of the boundaryless career. The hypothesis that self-directed career management would be positively correlated with proactive personality was supported. This suggests that the more proactive

someone is, the more likely they are to be self-directed in their career management. This supports the findings of Briscoe et al (2006). This is also in line with findings by Seibert, Crant and Kraimer (1999) that proactive personality positively predicted career self-management behaviours, and findings by Major, Turner and Fletcher (2006) that proactive personality was positively correlated with motivation to learn and development activity in the workplace. The hypothesis that values-driven career management would be positively correlated with proactive personality was also supported, again in line with the findings of Briscoe et al (2006). These findings indicate that people who are more proactive are more likely to be both self-directed and values-driven in their career management. This suggests that there is a link between a person's personality and how protean they are in their career attitudes.

In terms of the boundaryless career, the hypothesis that proactive personality and boundaryless mindset would be positively correlated was supported. This is in line with previous findings by Briscoe et al (2006) and McArdle, Waters, Briscoe and Hall (2007). This finding suggests that people who are more proactive are more likely to hold a boundaryless mindset towards their careers and are more likely to want to be psychologically mobile, i.e. work with individuals and on projects beyond their own department or organisation. On the other hand, the hypothesis that proactive personality would correlate positively with organisational mobility preference was not supported. This does not support the finding by Briscoe et al (2006) that proactive personality was positively correlated with mobility preference. It is also not in line with findings by Chiaburu, Baker and Pitariu (2006) that proactive personality was related to job mobility preparedness. This finding indicates that the extent to which individuals desire to be physically mobile in their careers and cross organisational boundaries does not necessarily relate to how proactive they are. Perhaps this finding is a result of the current economic climate in New Zealand. As it is a recession, jobs are not readily available, and perhaps no matter how proactive individuals may be, they can see that there are currently certain benefits, such as job security, to staying with one organisation.

The hypotheses that openness to experience would correlate positively with self-directed career management and values-driven career management were both supported. These findings suggest that the more open to experiences a person is the more likely they are to take a self-directed and values-driven approach to their career

management. This supports the previous finding by Briscoe et al (2006) that both protean career attitudes were positively related to openness to experience. It is also in line with findings by Major, Turner and Fletcher (2006) that proactive personality was positively related to motivation to learn and development activity.

In terms of the boundaryless career, the hypothesis that boundaryless mindset would be positively correlated with openness to experience was supported. This is in line with findings by Briscoe et al (2006) and suggests that the more open an individual is to experiences, the more likely they are to hold a boundaryless mindset towards their careers and want to work with individuals across departmental and organisational boundaries. The hypothesis that organisational mobility preference would be positively correlated with openness to experience was not supported. This finding is not in line with that by Briscoe et al (2006) that mobility preference and openness to experience were positively correlated. It indicates that how open an individual is to experiences does not relate to their preference for physical mobility across organisational boundaries. Again, this finding could be a result of the current economic climate in New Zealand. With few job opportunities available, perhaps individuals of all personality types are more aware of the risks of moving between companies, and are instead happy to stay with their current organisation. Taken together, the findings that organisational mobility preference did not relate to either proactive personality or openness to experience in this study suggests that an individual's preference for physical mobility in their careers may not be related to personality variables. Furthermore, mobility preference was not found to relate to age or gender, and although a correlation was found with education level, no significant differences were found between educational groups. This indicates that the extent to which an individual wants to be physically mobile in their careers may depend more on situational factors rather than demographic or personality variables. As suggested above, such situational variables may include the economic climate and the availability of jobs.

Overall prediction. When examined further through multiple regression, it was found that self-directed career management was most strongly predicted by proactive personality and education level. Values-driven career management was most strongly predicted by proactive personality, and boundaryless mindset was most strongly predicted by proactive personality and openness to experience. These findings

suggest that, of the variables that were hypothesised to predict these three career attitudes, proactive personality was the most consistent and the strongest predictor of all. These findings also indicate that self-directed career management, values-driven career management, boundaryless mindset and mobility preference are distinct attitudes and are affected by different variables. While three of these career attitudes were predicted most strongly by proactive personality, education level was found to be a predictor of only self-directed career management, as was openness to experience for boundaryless mindset. It is also worth noting that only 26% of the variance in self-directed career management, 16% of the variance in values-driven career management and 30% of the variance in boundaryless mindset were predicted by age, gender, education level, proactive personality and openness to experience. There is therefore still a significant portion of these career attitudes that is predicted by other variables. As this is the first known study to assess the predictive power of variables on these measures of protean and boundaryless career attitudes, it offers an important insight. Clearly the predictive power could be improved if other variables were added to the equations. It is therefore worth investigating further what these variables may be and in what ways they improve prediction.

It was found that organisational mobility preference was not significantly predicted by any of the hypothesised variables. This indicates that other factors must play a more important role in predicting whether or not individuals desire to be physically mobile and cross organisational boundaries in their careers. This is in line with the fact that none of the hypothesised relationships between organisational mobility preference and other variables were supported, apart from education level which was only partially supported. Perhaps this could be explained in part by the findings of Briscoe and Finkelstein (2009) that, unlike the other protean and boundaryless career attitudes, mobility preference was negatively related to affective, normative and continuance commitment. This suggests that perhaps it is aspects of the job and the organisation that impact on people's desire to be physically mobile in their careers, rather than aspects of the person themselves. This idea is worth further exploration. It could also be that situational variables such as the economic climate and the job market relate to people's desire to work for multiple employers. These findings do support the importance of separating boundaryless and protean career

attitudes out into the four distinct constructs of which they are made up since each is clearly independently formed.

Career path variables. The final research question for this study was “do variables relating to the career paths of New Zealanders relate to the extent to which they hold protean and boundaryless career attitudes?” There was a mix of results around this question, with some support being found for a relationship between career path variables and career attitudes. Firstly, the hypothesis that inter-organisational mobility would be positively correlated with mobility preference was not supported. The finding that no relationship existed between this type of mobility and mobility preference supports the finding by Briscoe et al (2006) that the number of job changes per years in full time employment did not correlate with organisational mobility preference. Although it seems intuitive that the extent to which people desire to be physically mobile in their careers will relate to the extent to which they actually are physically mobile in their careers, this finding indicates that this is not the case. As suggested by Briscoe et al, this finding highlights the fact that holding a boundaryless career attitude does not mean that individuals are going to be more physically mobile in their careers. It seems likely that a number of situational variables impact on whether individuals do cross organisational boundaries during their careers, and that these variables may explain why wanting to work for more than one organisation during one’s career does not necessarily mean that it happens. Such variables may include the current economic climate, the level of demand for individuals’ skills and the number of dependents an individual has.

Supplementary findings. In order to explore further relationships between career path variables and protean and boundaryless career attitudes, some supplementary analyses were conducted. As this study is one of the first to use all four scales of the protean and boundaryless career attitudes, as developed by Briscoe et al (2006), the findings will help to provide a broader picture of these career attitudes and the variables that impact on them. Furthermore, Sullivan and Baruch (2009) identified a need for studies to investigate the relationship between different types of mobility and protean and boundaryless careers. For these reasons, some additional results that go beyond the hypothesised relationships are discussed here. Firstly, some interesting relationships were found to exist between values-driven career management and variables relating to individuals’ careers. It was found that values-driven career

management was positively related to the number of years spent in the workforce. This indicates that as people are in the workforce for longer, they tend to become more values-driven in their career management. This relationship was found only for this one career attitude, thereby differentiating values-driven career management from the other attitudes. This finding does make sense as values-driven career management was also the only career attitude that was found to increase with age.

Values-driven career management was also found to decrease as employer mobility, occupational mobility and geographic mobility increased. No such relationship was found for intra-organisational mobility. This suggests that the more people move between employers, occupations and countries in their careers, the less values-driven they are in their career management. This is in line with the finding by Briscoe et al (2006), that values-driven career management and the number of employers per years working full time (employer mobility), were negatively correlated. No known studies have explored the relationship between these career attitudes and different forms of mobility. This finding is important because it highlights the fact that holding “new” career attitudes such as the protean career attitude is not the same as being mobile in one’s career, something that has often been assumed in the protean and boundaryless career literature (Eby, 2001; Pang, 2003; Valcour & Tolbert, 2003; Yamashita & Uenoyama, 2006). It is also important to note that no other relationships were found between these types of mobility and self-directed career management, boundaryless mindset or mobility preference. This indicates that holding a self-directed career attitude or a boundaryless career attitude does not necessarily relate to individuals’ career mobility. Once again this reinforces the point that these career attitudes do not imply that individuals will be more mobile in their careers. So, although Arthur (1995) in his initial description of the boundaryless career did list employer mobility as one component, the findings of this study have reinforced that although openness to physical mobility is a part of boundaryless careers, this is not always the case, and furthermore actual mobility appears not to be linked to either the boundaryless career or self-directed career management, while the values-driven career management component of the protean career is actually negatively related to several forms of mobility.

As a significant amount of the literature on new careers has discussed career mobility (Eby, 2001; Pang, 2003; Valcour & Tolbert, 2003; Yamashita & Uenoyama,

2006), this study can offer some insights into how career mobility is acted out in New Zealand individuals. Interestingly, all forms of mobility were found to be negatively related to age as well as to years in the workforce. This suggests that as people age and spend longer working, they are less likely to move around between companies, between jobs within companies, across occupations and across countries. It was also found that all types of mobility (intra-organisational, inter-organisational, occupational and geographic) were positively correlated with each other, indicating that if a person exhibits one type of mobility in their careers, they are also likely to act out other types. Occupation and geographic mobility were found to correlate particularly highly with each other, suggesting that the number of occupations and the number of countries that an individual works in over their years in the workforce are very closely related. Both occupational mobility and geographic mobility were both found to increase as education level increased. This suggests that the more educated individuals are, the more likely they are to work in more than one occupation during their careers, as well as in more than one country. It is interesting that education level did not relate to inter-organisational mobility as it has been previously suggested that people who are more highly educated are more likely to chase the higher salary levels that can be achieved through switching employers (Cheramie et al., 2007). As education level was found to positively correlate with organisational mobility preference, perhaps those who are more highly educated are more open to moving between employers, but age and situational variables play a greater role in determining whether they actually exhibit more employer movements.

In terms of the type of employment contract an individual is on, permanent fixed term or casual, it was found that one difference did exist, with individuals on a casual contract having significantly higher levels of boundaryless mindset than those on a permanent contract. This is, to a certain extent, in line with the suggestion by Marler, Barringer and Milkovich (2002) that the shift to contingent work represents part of a more general move to workers wanting independence and flexibility, and that a boundaryless contingent worker exists who has a preference for temporary work arrangements. However, it does also make intuitive sense that casual workers would be more open to working beyond organisational boundaries. As no relationships were found with any of the other career attitudes and employment contract types, this probably explains the relationship. It is however worth investigating further.

As Sullivan and Baruch (2009) called for an investigation into differences across industry sectors, and Segers et al (2008) found some differences in career motivations across industries, this study offers further evidence as to whether cross-industry differences in career attitudes do exist. It was found that individuals in consulting and education scored more highly on self-directed career management than those in the transport sector, and those in consulting also scored more highly than those in finance. Those in consulting also scored more highly on boundaryless mindset than those in transport/logistics. These findings do partly support those of Segers et al (2008) who found that consulting was one of the sectors in which people were likely to be high on all four protean and boundaryless career attitudes, and that the transport/logistics sector tended to include people who were low on all four attitudes. Although only a few differences were found between some industries and only in some of the career attitudes, this does still support the notion that some employment sector differences do exist. Perhaps in a study that included participants who ranged more in their employment sectors, more differences might be found.

Implications

Firstly, the results of this study imply that while certain differences have been thought to exist in terms of how individuals view their careers, some of these differences may be evening out. The literature on protean and boundaryless careers has emphasised the fact that the two concepts have come about mostly due to changes to both organisational and societal structures (Arthur, 1994; Arthur et al., 1989b; Hall & Associates, 1996; Howard, 1995b). It appears from this study that, at least in terms of an individual's career attitudes, these changes may be impacting quite broadly on how individuals perceive their careers. Fewer differences were found to exist between demographic groups than was expected, particularly for self-directed career management, boundaryless mindset and mobility preference. If this is the case and people in general have become more self-directed and boundaryless in their career attitudes, then it is important for organisations to act accordingly. For example, as it appears that men, women and people of all ages are equally likely to be self-directed in their career management, organisations need to offer employees opportunities for development, as well as choice around what kind of development they engage in. Employees may be more likely to want to direct their own career development, and will thus value having choice around such opportunities.

However, it has also been argued that having to take charge of one's own development without organisational support may be a significant disadvantage to certain groups of people (Van Buren, 2003). Furthermore, it could be that people have had to become more self-directed because the reduction in paternalistic organisational structures has left them with no choice. It is therefore important to ensure that individuals are provided with support in terms of career development, while also remembering that individuals may want to self-direct their careers and may not want to follow traditional career paths. The provision of a variety of development opportunities alongside organisational support for making development decisions is likely to provide a balance between individual versus organisational career management. As taking a self-directed approach to career management was found to positively correlate with education level, it is important to ensure that individuals with graduate level qualifications are given more choice in regards to career development. On the other hand, employees with high-school levels of education are less likely to take a self-directed approach to their career management and are therefore likely to appreciate, and benefit from, more support in this area. As career flexibility and self-management have been shown to negatively impact on low skilled workers (Peel & Inkson, 2004), this is important to keep in mind so as not to force employees into situations in which they feel insecure or out of their depth.

Another implication of these findings is that providing employees with opportunities to work with colleagues beyond their own team, as well as to collaborate with people outside of their organisation, is likely to be an important step in retaining staff and ensuring that they are satisfied in their roles. As no gender or age differences were found on boundaryless mindset, staff of all ages, both female and male, are likely to place equal value on having such opportunities for networking and collaboration. In addition, the provision of networking opportunities may be even more important for people with tertiary qualifications, who were found to have higher levels of boundaryless mindset, while those with high-school level education may not want to participate in such behaviours. It would therefore be beneficial to ask individuals whether they would like such opportunities, or whether they would rather not.

In terms of a desire for physical mobility, although fewer differences were found to exist between demographic groups than was expected, it is important to remember

that this does not reflect a difference in actual mobility. This was emphasised by the finding that mobility preference did not relate to inter-organisational mobility. Organisations therefore should not fear boundaryless career attitudes because they do not make employees more likely to leave and work elsewhere. However, as mobility preference has previously been linked to lower levels of commitment (Briscoe & Finkelstein, 2009), it does appear that individuals with a mobility preference may feel less loyal to their organisation. This suggests that employees who hold a mobility preference are likely to have lower levels of commitment, but are no more likely than other employees to leave the organisation. This could potentially lead to other negative consequences for the organisation such as lower productivity or counter-productive work behaviours. As demographic variables were found to have very little impact on mobility preference, it seems that situational rather than individual factors are likely to determine firstly whether an individual wants to work for more than one employer during their career, as well as whether holding such a mobility preference translates in to actual mobility. It is therefore important for organisations to ensure that individuals who are identified as wanting to leave, but are staying due to situational factors, are kept as satisfied as possible in their roles in order to maintain levels of productivity from such employees. Perhaps positive changes to an individual's job situation such as more opportunities for networking in the role may be enough to make them want to stay with the organisation. Broader situational factors over which the organisation has limited control, such as the level of demand for certain skills and the general state of the job market, are also likely to make an impact.

It is also important to note that mobility preference did not correlate with values-driven career management and it is therefore not definitive of holding "new" career attitudes. In fact, values-driven career management was negatively correlated with occupational, geographic and employer mobility, further emphasising that holding these careers attitudes does not imply that people are more likely to be mobile in their careers. Once again, for organisations this means that protean career attitudes are not something to fear, and that individuals who hold a values-driven approach to their career management may in fact be less likely to move between organisations, or make occupational or geographic career moves.

In terms of values-driven career management, it is important to ensure that older workers are able to undertake work that is in line with their own values, and that the organisation is aware of what their values may be so that they can offer development opportunities that align with them. Furthermore, as self-directed career management, values-driven career management and boundaryless mindset were all found to relate to proactive personality and openness to experience, organisations should ensure that employees who are particularly prone to enact changes in their own environments and are happy to engage in new and different experiences, are given opportunities for career self-management and networking. As these individuals are likely to seek out these opportunities if they are not provided to them (Bateman & Crant, 1993), it is important to ensure that they are available in the workplace so that these individuals do not feel forced to seek them elsewhere. As for individuals who are not as proactive and open to experiences, they are at risk of being disadvantaged in the workplace as they may not adapt as well to the new ways of working such as directing their own career development and building relationships with individuals beyond their own team and organisation. It is therefore pertinent that such employees are looked out for in the workplace and given more guidance and support when required.

Another important implication from the findings of this study is that although certain key relationships were found, the ability of demographic and personality variables to explain an individual's career attitudes is limited. The maximum predictive value of these variables is 30%, with organisational mobility preference not being predicted at all by these variables. This implies that while certain aspects of what makes up who an individual is may impact on how likely they are to be self-directed, values-driven and hold a boundaryless mindset, other variables still play a significant role. This point reiterates that of Van Buren (2003) and Pringle and Mallon (2003) that it is important not to over-emphasise the role of individual agency and choice in new careers. While it may be tempting to assume that individuals have in general become more protean and boundaryless than before, other variables still play an important role in the development of these career attitudes, and it should not therefore be assumed that people are open to, or happy with, new ways of working.

As no differences were found across employment contract groups on any of the career attitudes other than boundaryless mindset, it can be said that individuals on permanent, fixed term and casual contracts are equally likely to want to be self-

directed and values-driven in their career management. This means that organisations should include individuals on fixed term and casual employment agreements as much as possible in the provision of development opportunities and support as they are no more self-directed than other employees. It is interesting that no differences were found on mobility preference as it would seem that casual and fixed term employees would need to be more open to moving across organisational boundaries than those on permanent contracts. However it is important to remember that the vast majority of participants in this study were on permanent contracts which may explain why no relationship was found. Furthermore, it may be that people on casual or fixed term contracts actually do not desire to work for different employers any more than people on permanent contracts, but that they have gone into that type of work for situational reasons such as a lack of permanent positions available.

In terms of boundaryless mindset, as those on a casual contract were more likely to want to work across organisational and departmental boundaries than those on a permanent contract, they are more likely to create networks during their careers, and to enjoy collaborating beyond organisational boundaries. This is likely to be of benefit to both individuals involved in contracting work and the organisations employing them. For individuals, being open to working with individuals across team and organisational boundaries will allow them to enjoy meeting and working with new people in their roles. It may also mean they are more open to networking, something which is likely to be advantageous to them and may lead to further job opportunities. For organisations, casual workers who hold a boundaryless mindset are beneficial because they will more easily fit in to new teams and workplaces if they are open to working with a range of people.

Future Research

As a number of the hypotheses of this study were not supported, and a number of expected gender differences or correlations were not found, further research is required in order to determine whether this reflects reality, or whether it was due to factors in this study. Firstly, the finding that men were more values-driven than women was unexpected, and has not been found in any other studies reviewed. As the number of studies that have used this scale is limited, perhaps men are more values-driven in their career management than women are. However, the values-driven scale was shortened in this study which could have impacted on this result. It is therefore

suggested that further studies investigate whether this gender difference does really exist. Further studies also need to examine gender differences in the other career attitudes in order to determine whether men and women really are equally likely to be self-directed in their career management, as well as to hold a boundaryless mindset and mobility preference. As it has been argued by several researchers that men are more likely to be physically mobile in their careers while women are more likely to be psychologically mobile (Ackah & Heaton, 2004; Forret & Dougherty, 2001; Segers et al., 2008; Sullivan & Arthur, 2006) it would be useful to investigate gender differences in actual mobility rather than only career attitudes. Family variables such as marital status and number of dependents could also be included to see whether they impact on career attitudes. As it has previously been found by Valcour and Tolbert (2003) that variables such as number of children and marital status impact on perceptions of career success, it seems likely that they may also impact on protean and boundaryless career attitudes.

The finding that organisational mobility preference did not relate to any of the hypothesised variables, except education level, and was not predicted by a regression combination of demographic and personality variables, needs to be investigated further. This result suggests that situational variables are more important predictors of organisational mobility preference than demographic or personality variables are. As mobility preference has been previously linked to lower levels of commitment (Briscoe & Finkelstein, 2009) it is important to determine what variables do impact on it. It could be that aspects of a person's job, such as the working environment and job satisfaction, play an important role. It also seems likely that broader variables such as the economic and job climate would impact on mobility preference. Perhaps for example the fact that New Zealand was in a recession impacted on the extent to which individuals desired to be physically mobile in their careers. It would also be interesting to explore further the relationship between mobility preference and actual employer mobility. In this study no relationship was found, however it could be that this relationship is moderated by variables such as the job climate, and that in a good job market where individuals can easily walk in to new roles, the link between mobility preference and actual mobility is stronger.

More research into different types of career mobility and how they interact with career attitudes and other career variables would be of interest. Although several

types of mobility were looked at in this study, they were not the focus, and additional types such as downward movements and lateral movements were not examined. Lateral movement was discussed by Hall (2002) as a key element of the protean career as individuals strive to increase their competencies with the goals or learning, psychological success, and development of one's identity. Hall also discussed this development as not necessarily involving formal training and education programs, but more simply involving work challenges and networks. While the career attitude scales capture individuals' desire to network and to direct their own development, they do not provide measures of the extent to which individuals actually do this. Measuring lateral moves that individuals act out during their careers would therefore be an interesting topic for future research.

Differences in career attitudes across employment contracts should also be studied further. While in this study some differences were found, the vast majority of participants were on permanent contracts, and only a limited number were on fixed term or casual contract. If larger samples of employees on each type of contract were included in a study, any differences would be more likely to be found. Furthermore, by investigating a larger sample of individuals who are on a casual employment contract, researchers could discover the extent to which a boundaryless contingent workforce does exist, as suggested by Marler and colleagues (2002). As results of this study indicate that individuals who are on a casual contract may be more likely to hold boundaryless career attitudes, this is worth investigating further, especially to see if any other differences are found. If differences continue to be found between individuals on a casual employment agreement and those on a permanent agreement it would be worth identifying other differences between these individuals such as on personality variables, family variables and situational variables in order to determine what it is that differentiates this subset of casual workers. It would also be interesting to see whether, as Marler and colleagues found, two groups of contingent workers exist – those who are more boundaryless, and those that remain traditional in their career attitudes. As Peel and Inkson (2004) found that low skilled workers who had shifted to contracting work experienced a range of negative outcomes, while high skilled workers who had made the same shift experienced positive outcomes, this would also be worth further investigation. As boundaryless mindset was found to be higher in casual workers and those with higher education levels, determining which

variables play a role in determining whether contracting is a positive or a negative experience would be worthwhile.

It is also worth investigating further any differences that may exist in career attitudes across industry sectors. As some differences were found in this study, as well as by Segers et al (2008) future research should explore exactly where these differences lie, and for what reasons. For example, in this study, individuals in the consulting sector scored more highly on self-directed career management and mobility preference than those in transport/logistics. This could be looked at in more detail in a study that involved a reasonable number of people from a range of different industry sectors. As the current study has shown that demographic and personality variables can only predict individuals' protean and boundaryless career attitudes to a limited extent, investigating broader contextual factors such as the industry in which one works may help to provide a more comprehensive picture of how these career attitudes are formed.

Given that protean and boundaryless career attitudes do seem to be quite widespread, it is also important to keep investigating how this is impacting on individuals, both positively and negatively, and how organisations should be responding to these changes. As Sullivan and Baruch (2009) pointed out in their review, most studies have focussed on the positive outcomes of protean and boundaryless careers. According to the findings of this study, individuals with higher education levels and who are more proactive and open to experiences tend to be more likely to take a protean and/or boundaryless approach to their careers. This raises the question of how people who are less highly educated, and not as proactive or open, are dealing with the changing work environment. For example, how do non-professional individuals feel about having to take charge of their own career development. As it has been shown that self-directedness can to a certain extent be learnt (Verbruggen & Sels, 2008), researchers should investigate how individuals go about doing this, as well as how organisations support them to do it. In studies by De Vos and Soens (2008) and Verbruggen and Sels (2008) self-directedness was found to be positively related to career satisfaction, providing another important reason for investigating the ways in which both individuals and organisations can increase self-directedness.

It is important to gain a better understanding of how organisations can help individuals to better adjust to this new work environment, and what types of support they can offer in terms of career development and management. It has been suggested that the changing work environment may result in managers feeling ambiguous about their roles, and may lead to uncertainty around the design and implementation of human resource policies and procedures (Sullivan & Baruch, 2009). Studies investigating the effectiveness of different HR practices and policies in relation to these new career attitudes would be extremely helpful in this regard. For instance, as Park (2009b) found that an organisational climate that promotes questioning and experimentation among employees is likely to increase employees' self-directedness, it seems that some climates are likely to foster self-directedness better than others, which may in turn increase individuals' career satisfaction (De Vos & Soens, 2008; Verbruggen & Sels, 2008). It would also be worth investigating what the benefits may be to organisations that help employees to adjust to the new work environment, as well as the potential disadvantages to the organisations that do not offer such support.

Strengths

This study has a number of key strengths. Firstly, it has addressed several gaps in the literature that were mentioned by Sullivan and Baruch's (2009) review. It has explored gender differences which, particularly in relation to the protean career, have been an area of conflicting results. Although some unexpected findings were found in this study in regards to gender, the majority of the results support those of other recent studies in that gender differences do not exist in self-directed career management or either of the two boundaryless career attitudes. It has also extended the research beyond American and British societies, something which has been called for repeatedly in reviews of this research area, by examining a sample of New Zealand workers. Furthermore it has examined a range of types of career mobility, which, according to Sullivan and Baruch (2009), have often been ignored in previous studies. Through the inclusion of several types of career mobility variables this study has been able to examine in more depth how career attitudes relate to career behaviour. It has also looked at differences across industries, which has been highlighted in reviews as an area in need of further research (Sullivan & Baruch, 2009).

Another strength of this research is the use of the protean and boundaryless career attitude scales developed by Briscoe et al (2006). The use of these scales allows for comparisons between the results of this study and those of other studies that have used these scales. One of the biggest draw-backs of the literature on boundaryless and protean careers to date has been the lack of consistency between studies in terms of how the two constructs were measured, which has limited the extent to which findings can be generalised and compared. Now that more studies are using these scales, a much clearer picture of boundaryless and protean careers is beginning to form. Furthermore this study has validated the two dimensional model of the protean career developed by Briscoe and Hall (2006) and the two dimensional model of the boundaryless career developed by Sullivan and Arthur (2006) and provided insights into how different demographic and personality variables impact on them. The use of regression, ANOVA and t-tests, in addition to the correlational analyses that have been used in other studies, has allowed for potential differences to be pinpointed more clearly than has been done previously. For example, the use of ANOVA allowed for specific differences to be found between different education levels and protean and boundaryless career attitudes.

This study also accessed a wide range of participants, with a total of 226 individuals taking part, all of whom were in the workforce and in varying stages of their careers. As a significant amount of research in this area has been conducted on students, sampling from the working population makes the results much more applicable to both organisations and individuals in general. The participants also worked in a range of different industries and organisations, again allowing for generalisation of the results to a range of individuals in the working population. The age range of the sample was also wide, and education levels were varying and encompassed all levels from some high school through to PhD. All of these factors convey that this study has a sample which in many ways is representative of the general working population.

Limitations

There are also certain limitations to this study. Firstly, the values-driven scale was shortened to four items rather than six because the other two items were not loading appropriately when factor analysis was conducted, and the self-directed scale was lengthened by one item that loaded on to the self-directed factor rather than the

values-driven factor. This limits the extent to which findings from this study that relate to values-driven career management and self-directed career management can be compared to other studies that have used the original versions of the scales. Secondly, the ACCI-Short Form which was initially included in the study in order to make comparisons between protean and boundaryless career attitudes and traditional career stages, had to be excluded from analysis. The scale was excluded because in factor analysis an unexpected number of factors were extracted, and some items were cross-loading. This does however mean that comparisons could not be made between the old and new career models to see if any relationships existed. As this has not been done in previous studies it would have added additional insights to our knowledge of these career models.

While the sample in this study had certain strengths, it also had limitations. Over 90% of individuals were on permanent contracts, which limited the extent to which comparisons could be made across contract groups. In terms of employment sector, although the sample worked in a range of sectors, almost 40% worked in finance or government/public sector, indicating that the sample was not evenly distributed across industry groups. This limited the extent to which comparisons could be made between industry groups. Genders were also not evenly represented in the sample with 67% of participants being female. Although there were no research questions around ethnicity, it would have been useful to gain a sample from a more representative sample of ethnic groups so that cultural differences could have been explored.

While the use of the protean and boundaryless career attitude scales is a strength of this study, it needs to be remembered that these scales measure attitudes not behaviours. Although it can be assumed that certain behaviours are likely to result from individuals holding certain career attitudes, the link between attitudes and behaviours cannot be guaranteed. Furthermore, the scales were mostly distributed to employees by the HR manager of the company they work for. This could have biased the way individuals responded to certain questions, despite the fact that participants were assured that all results would be confidential. In particular, responses to the career attitude scales and items such as “I prefer to stay in a company I am familiar with rather than look for employment elsewhere” may have produced more cautious

answers than if participants had received the survey independently of their organisation (as was the case with some participants).

There were a number of variables that were not included in this study that could have provided further insights. If family variables such as number of dependents and marital status had been included in this study, results would have given a broader picture in terms of what impacts on these career attitudes, particularly in relation to gender differences. A question on the employee's level in the organisation (e.g. managerial) would have also allowed for some comparisons between different groups of workers. As samples have often been limited to managerial and/or professional employees this would have been an interesting area to explore. The inclusion of questions on lateral career moves would have also given further insights around the types of mobility that New Zealand individuals are acting out in their careers. Furthermore the inclusion of some questions around the importance of advancement to individuals' careers, as well as objective measures of success such as salary, would have provided information about the extent to which aspects of the traditional career are still important to New Zealand workers. As Walton and Mallon (2004) found that aspects of the traditional career were still important themes to New Zealanders' careers, it would have been useful to be able to make comparisons with the results of their study. It is becoming increasingly clear that the traditional career is still important in society (Sullivan & Baruch, 2009) and so including some measures of this would have provided further insights.

Conclusions

This study supported the two factor model of the boundaryless career suggested by Sullivan and Arthur (2006) and confirms that the boundaryless career consists of physical and psychological mobility. It also supported the two factor model of the protean career that was suggested by Briscoe and Hall (2006) as consisting of self-directed career management and values-driven career management. It has added to the knowledge on how demographic and personality variables relate to these four career attitudes. Only values-driven career management was found to be related to gender, with men being more values-driven than women, and age, with values-driven career management found to increase with age. Self-directed career management, boundaryless mindset and mobility preference were all found to be positively related to education level, indicating that these career attitudes increase as education level

increases. All career attitudes, except mobility preference, were found to increase as proactive personality and openness to experience increased. These findings highlight that all four career attitudes are separate constructs and are associated with different demographic and personality variables in distinct ways. Regression analyses indicated that although values-driven career management, self-directed career management and boundaryless mindset are to some degree predicted by these demographic and personality variables, a significant amount of variance remained unexplained, and other variables are therefore also important. Mobility preference was not predicted by the combination of these variables and therefore other factors are critical in whether individuals develop a mobility preference in their careers.

This study has highlighted that career mobility is not at all synonymous with boundaryless and protean careers. No relationship was found between inter-organisational mobility and mobility preference, indicating that wanting to work for more than one organisation does not actually lead individuals to make more employer movements. Furthermore, values-driven career management was found to be negatively correlated with inter-organisational mobility, occupational and geographic mobility. This emphasises that protean and boundaryless career attitudes are not something to be feared by organisations. Instead, it is important for organisations to support workers in the new careers, and for researchers to investigate ways this can be done effectively. As it was found that individuals on a casual employment contract had higher levels of boundaryless mindset than those on a permanent contract, further studies should investigate in more detail the career attitudes of casual workers. Some differences were also found between individuals in different employment sectors on self-directed career management and boundaryless mindset which is also a key area for future investigation.

References

- Ackah, C., & Heaton, N. (2004). The reality of "new" careers for men and for women. *Journal of European Industrial Training*, 28(2-4), 141-158.
- Altman, B. W., & Post, J. E. (1996). Beyond the social contract: An analysis of the executive view at twenty-five larger companies. In D. T. Hall (Ed.), *The career is dead - long live the career*. San Francisco: Jossey-Bass.
- Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior*, 15(4), 295-306.
- Arthur, M. B., Hall, D. T., & Lawrence, B. S. (1989a). Generating new directions in career theory: the case for a transdisciplinary approach. In *Handbook of career theory*. New York: Cambridge University Press.
- Arthur, M. B., Hall, D. T., & Lawrence, B. S. (Eds.). (1989b). *Handbook of career theory*. New York: Cambridge University Press.
- Arthur, M. B., Inkson, K., & Pringle, J. K. (1999). *The new careers: individual action and economic change*. London: SAGE Publishers Ltd.
- Arthur, M. B., Khapova, S. N., & Wilderom, C. P. M. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior*, 26(2), 177-202.
- Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless career: a new employment principle for a new organizational era*. New York: Oxford University Press.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118.
- Bird, A. (1994). Careers as repositories of knowledge: A new perspective on boundaryless careers. *Journal of Organizational Behavior*, 15(4), 325-344.
- Breeden, S. A. (1993). Job and occupational change as a function of occupational correspondence and job satisfaction. *Journal of Vocational Behavior*, 43, 30-45.
- Bridgstock, R. (2005). Australian artists, starving and well-nourished: What can we learn from the prototypical protean career? *Australian Journal of Career Development*, 14(3), 40-48.

- Briscoe, J. P., & Finkelstein, L. M. (2009). The "new career" and organizational commitment. *Career Development International*, 14(3), 242-260.
- Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior*, 69(1), 4-18.
- Briscoe, J. P., Hall, D. T., & DeMuth, R. L. F. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, 69(1), 30-47.
- Chay, Y.-W., & Aryee, S. (1999). Potential moderating influence of career growth opportunities on careerist orientation and work attitudes: Evidence of the protean career era in Singapore. *Journal of Organizational Behavior*, 20(5), 613-623.
- Cheremie, R. A., Sturman, M. C., & Walsh, K. (2007). Executive career management: Switching organizations and the boundaryless career. *Journal of Vocational Behavior*, 71(3), 359-374.
- Chiaburu, D. S., Baker, V. L., & Pitariu, A. H. (2006). Beyond being proactive: what (else) matters for career self-management behaviors? *Career Development International*, 11(7), 619-632.
- Clarke, M. (2009). Plodders, pragmatists, visionaries and opportunists: career patterns and employability. *Career Development International*, 14(1), 8-28.
- Cohen, L., & Mallon, M. (1999). The Transition from Organisational Employment to Portfolio Working: Perceptions of 'Boundarylessness'. *Work Employment Society*, 13(2), 329-352.
- Costa, P. T. J., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, Florida: Psychological Assessment Resources.
- Cunningham, J., & Sweet, B. (2009). Individual competencies that older workers use in successfully adapting during their careers. *International Journal of Human Resources Development and Management*, 9(2/3), 198-222.
- Currie, G., Tempest, S., & Starkey, K. (2006). New careers for old? Organizational and individual responses to changing boundaries. *The International Journal of Human Resource Management*, 17(4), 755-774.

- Dany, F. (2003). 'Free actors' and organizations: critical remarks about the new career literature, based on French insights. *The International Journal of Human Resource Management*, 14(5), 821 - 838.
- De Vos, A., & Soens, N. (2008). Protean attitude and career success: The mediating role of self-management. *Journal of Vocational Behavior*, 73(3), 449-456.
- Defillippi, R. J., & Arthur, M. B. (1994). The boundaryless career: A competency-based perspective. *Journal of Organizational Behavior*, 15(4), 307-324.
- Dowd, K. O., & Kaplan, D. M. (2005). The career life of academics: Boundaried or boundaryless? *Human Relations*, 58(6), 699-721.
- Eby, L. T. (2001). The Boundaryless Career Experiences of Mobile Spouses in Dual-Earner Marriages. *Group Organization Management*, 26(3), 343-368.
- Eby, L. T., Butts, M., & Lockwood, A. (2003). Predictors of success in the era of the boundaryless career. *Journal of Organizational Behavior*, 24(6), 689-708.
- Feldman, D. C., & Weitz, B. A. (1991). From the invisible hand to the gladhand: understanding the careerist orientation to work. *Human Resource Management*, 30, 237-257.
- Fletcher, J. K. (1996). A relational approach to the protean worker. In *The career is dead-long live the career: a relational approach to career management* (pp. 105-131). San Francisco, California: Jossey-Bass Inc.
- Forret, M. L., & Dougherty, T. W. (2001). Correlates of networking behavior for managerial and professional employees. *Group & Organization Management*, 26(3), 283-311.
- Forret, M. L., Sullivan, S. E., & Mainiero, L. A. (2010). Gender role differences in reactions to unemployment: Exploring psychological mobility and boundaryless careers. *Journal of Organizational Behavior*, 31, 647-666.
- Gerber, M., Wittekind, A., Grote, G., Conway, N., & Guest, D. (2009). Generalizability of career orientations: A comparative study in Switzerland and Great Britain. *Journal of Occupational and Organizational Psychology*, 82, 779-801.
- Goldberg, L. R. (1996, 30/07/2010). International Personality Item Pool: A Scientific Collaboratory for the Development of Advanced Measures of Personality Traits and Other Individual Differences (<http://ipip.ori.org/>). Retrieved 01/02/2010, 2010

- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., et al. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality, 40*, 84-96.
- Granrose, C. S., & Baccili, P. A. (2006). Do psychological contracts include boundaryless or protean careers? *Career Development International, 11*(2), 163-182.
- Hall, D. T. (1976). *Careers in organizations*. Glenview, IL: Scott, Foresman.
- Hall, D. T. (1996). Protean careers of the 21st century. *The Academy of Management Executive, 10*(4), 8-16.
- Hall, D. T. (2002). *Careers in and out of organizations*. Thousand Oaks, California: Sage Publications, Inc.
- Hall, D. T., & Associates. (1996). *The career is dead-long live the career: a relational approach to careers* (1 ed.). San Francisco, California: Jossey-Bass Inc.
- Hall, D. T., Briscoe, J. P., & Kraum, K. E. (1997). Identity, Values and Learning in the Protean Career. In C. L. Cooper & S. E. Jackson (Eds.), *Creating tomorrow's organizations*. Chichester, England.
- Hall, D. T., & Mirvis, P. H. (1995). Careers as lifelong learning. In *The changing nature of work*. San Francisco: Jossey-Bass Publishers Inc.
- Hall, D. T., & Mirvis, P. H. (1996). The new protean career - psychological success and path with a heart. In *The career is dead-long live the career: a relational approach to careers* (pp. 15-45). San Francisco: Jossey-Bass Inc.
- Howard, A. (1995a). A framework for work change. In *The changing nature of work*. San Francisco: Jossey-Bass Publishers Inc.
- Howard, A. (Ed.). (1995b). *The changing nature of work*. San Francisco: Jossey-Bass Inc.
- Inkson, K. (2006). Protean and boundaryless careers as metaphors. *Journal of Vocational Behavior, 69*(1), 48-63.
- Inkson, K., & Parker, P. (2005). 'Boundaryless' Careers and the Transfer of Knowledge: A 'Middle Earth' Perspective. *Higher Education Policy, 18*(3), 313-325.

- Inkson, K., Roper, J., & Ganesh, S. (2008). *The New Careers as Discourse*. Paper presented at the European Group for Organisation Studies, 24th Annual Colloquium.
- Ituma, A., & Simpson, R. (2009). The 'boundaryless' career and career boundaries: Applying an institutionalist perspective to ICT workers in the context of Nigeria. *Human Relations, 62*(5), 727-762.
- Kanfer, R., & Ackerman, P. L. (2004). Aging, Adult Development, and Work Motivation. *The Academy of Management Review, 29*(3), 440-458.
- King, Z., Burke, S., & Pemberton, J. (2005). The 'bounded' career: An empirical study of human capital, career mobility and employment outcomes in a mediated labour market. *Human Relations, 58*(8), 981-1007.
- MacDermid, S. M., Lee, M. D., Buck, M., & Williams, M. L. (2001). Alternative work arrangements among professionals and managers: Rethinking career development and success. *The Journal of Management Development, 20*(4), 305-317.
- Maguire, H. (2002). Psychological contracts: Are they still relevant? *Career Development International, 7*(3), 167-180.
- Major, D. A., Turner, J. E., & Fletcher, D. F. (2006). Linking Proactive Personality and the Big Five to Motivation to Learn and Development Activity. *Journal of Applied Psychology, 91*(4), 927-935.
- Marler, J. H., Barringer, M. W., & Milkovich, G. T. (2002). Boundaryless and traditional contingent employees: worlds apart. *Journal of Organizational Behavior, 23*(4), 425-453.
- McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior, 71*(2), 247-264.
- McDonald, P., Brown, K., & Bradley, L. (2005). Have traditional career paths given way to protean ones? Evidence from senior managers in the Australian public sector. *Career Development International, 10*(2), 109-160.
- Mirvis, P. H., & Hall, D. T. (1996). New organizational forms and the new career. In *The career is dead-long live the career: a relational approach to career management* (pp. 72-101). San Francisco, California: Jossey-Bass Inc.

- Pang, M. (2003). Boundaryless careers? The (in-)voluntary (re-)actions of some Chinese in Hong Kong and Britain. *The International Journal of Human Resource Management*, 14(5), 809 - 820.
- Park, Y. (2009a). Factors influencing self-directed career management: an integrative investigation. *Journal of European Industrial Training*, 33(7), 578-593.
- Park, Y. (2009b). An integrative empirical approach to the predictors of self-directed career management. *Career Development International*, 14(7), 636-654.
- Parker, P., & Inkson, K. (1999). New Forms of Career: The Challenge to Human Resource Management. *Asia Pacific Journal of Human Resources*, 37(1), 76-85.
- Peel, S., & Inkson, K. (2004). Contracting and careers: choosing between self and organizational employment. *Career Development International*, 9(6/7), 542-558.
- Peiperl, M. A., & Baruch, Y. (1997). Back to square zero: The post-corporate career. *Organizational Dynamics*, 25(4), 7-22.
- Perrone, K. M., Gordon, P. A., Fitch, J. C., & Civiletto, C. L. (2003). The adult career concerns inventory: development of a short form. *Journal of Employment Counseling*, 40(4), 172-180.
- Pringle, J. K., & Mallon, M. (2003). Challenges for the boundaryless career odyssey. *The International Journal of Human Resource Management*, 14(5), 839-853.
- Roth, P. L., Switzer, F. S., & Switzer, D. M. (1999). Missing Data in Multiple Item Scales: A Monte Carlo Analysis of Missing Data Techniques. *Organizational Research Methods*, 2(3), 211-232.
- Rousseau, D. M. (1990). New hire perceptions of their own and their employer's obligations: A study of psychological contracts. *Journal of Organizational Behavior (1986-1998)*, 11(5), 389-400.
- Sanchez, J. I., Spector, P. E., & Cooper, C. L. (2000). Adapting to a boundaryless world: A developmental expatriate model. *The Academy of Management Executive*, 14(2), 96-106.
- Sargent, L. D., & Domberger, S. R. (2007). Exploring the development of a protean career orientation: values and image violations. *Career Development International*, 12(6), 545-564.

- Schneer, J. A., & Reitman, F. (1993). Effects of alternative family structures on managerial career paths. *Academy of Management Journal*, 36, 830-843.
- Segers, J., Inceoglu, I., Vloeberghs, D., Bartram, D., & Henderickx, E. (2008). Protean and boundaryless careers: A study on potential motivators. *Journal of Vocational Behavior*, 73(2), 212-230.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive Personality and Career Success. *Journal of Applied Psychology*, 84(3), 416-427.
- Smith, T., & Sheridan, A. (2006). Organisational careers versus boundaryless careers: Insights from the accounting profession. *Journal of Management and Organization*, 12, 223-234.
- Sommerlund, J., & Boutaiba, S. (2007). Borders of "the boundaryless career". *Journal of Organizational Change Management*, 20(4), 525-538.
- Stahl, G. K., Miller, E. L., & Tung, R. L. (2002). Toward the boundaryless career: a closer look at the expatriate career concept and the perceived implications of an international assignment. *Journal of World Business*, 37(3), 216-227.
- Sullivan, S. E. (1999). The Changing Nature of Careers: A Review and Research Agenda. *Journal of Management*, 25(3), 457-484.
- Sullivan, S. E., & Arthur, M. B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility*. *Journal of Vocational Behavior*, 69(1), 19-29.
- Sullivan, S. E., & Baruch, Y. (2009). Advances in Career Theory and Research: A Critical Review and Agenda for Future Exploration. *Journal of Management*, 35(6), 1542-1571.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16(3), 282-298.
- Tabachnick, & Fidell. (2001). Normality, Linearity, and Homoscedasticity. In *Using Multivariate Statistics* (4 ed., pp. 72-85). Boston: Allyn and Bacon.
- Valcour, M., & Ladge, J. J. (2008). Family and career path characteristics as predictors of women's objective and subjective career success: Integrating traditional and protean career explanations. *Journal of Vocational Behavior*, 73, 300-309.
- Valcour, M., & Tolbert, P. S. (2003). Gender, family and career in the era of boundarylessness: determinants and effects of intra- and inter-organizational

- mobility. *The International Journal of Human Resource Management*, 14(5), 768 - 787.
- Van Buren, H. J. (2003). Boundaryless careers and employability obligations. *Business Ethics Quarterly*, 13(2), 131-149.
- Verbruggen, M., & Sels, L. (2008). Can career self-directedness be improved through counseling? *Journal of Vocational Behavior*, 73(2), 318-327.
- Vigoda-Gadot, E., & Grimland, S. (2008). Values and career choice at the beginning of the MBA educational process. *Career Development International*, 13(4), 333-345.
- Walton, S., & Mallon, M. (2004). Redefining the Boundaries? Making Sense of Career in Contemporary New Zealand. *Asia Pacific Journal of Human Resources*, 42(1), 75-95.
- Warr, P., & Birdi, K. (1998). Employee age and voluntary development activity. *International Journal of Training and Development*, 2(3), 190-204.
- Yamashita, M., & Uenoyama, T. (2006). Boundaryless career and adaptive HR practices in Japan's hotel industry. *Career Development International*, 11(3), 230-242.
- Zabusky, S. E., & Barley, S. R. (1996). Redefining success: ethnographic observations on the careers of technicians. . In P. Osterman (Ed.), *Broken Ladders*. New York: Oxford University Press.

Appendices

Appendix A - Letter

Date

Dear...,

My name is Heather Morrell and I am a Masters student in Organisational Psychology at the University of Waikato, under the supervision of Dr Donald Cable and Professor Michael O'Driscoll in the Department of Psychology.

I am inviting employees of ... to participate in research investigating the types of attitudes that New Zealanders hold towards their careers. This research has been approved by the University of Waikato Psychology Research and Ethics Committee. The study explores the following two career concepts. Firstly, protean careers are defined as careers that are managed by the individual and are changed by the individual in response to both intra-organisational and extra-organisational influences. Secondly, boundaryless careers are defined as careers that cross functional, organisational, and geographic boundaries. The goals of this study are to discover the extent to which New Zealanders hold these career attitudes, if this differs across demographic groups, if personality variables relate to career attitudes, as well as gathering some exploratory data about peoples' career paths.

Findings from this study will benefit both individuals and organisations.

Understanding how people view their careers is of great importance as it helps to ensure that people are given the right opportunities in the workplace to develop and grow, as well as ensuring that people are given the right resources and advice to make satisfying career decisions. For organisations, understanding the attitudes that employees hold is of value for HR decisions such as what training and development opportunities should be offered. When these decisions are made with an understanding about employees' career attitudes it is more likely that the right

decisions will be made, resulting in happy and satisfied employees who will want to stay with the organisation.

This research only requires employees to spend approximately 15 minutes completing a one-off online survey. If you are willing to provide assistance in this research, please email or call me (Heather Morrell) and I will send you an email to forward to your employees. If they are willing to participate, they may follow the link included in the email to the online questionnaire. Participation in this study is entirely anonymous and voluntary. If you or your employees do not wish to participate you do not have to provide an explanation. Once individuals have completed the survey there is no way to identify them or your organisation.

Upon completion of the research I will provide a brief report on the general findings. This will be done in a way that does not identify any organisation or any of the participants as its source.

If you have any concerns or queries please contact:

Researcher:

Heather Morrell Ph: 0273767602 Email: heather.morrell@gmail.com

Research Supervisors:

Dr Donald Cable Ph: +64-7-8384080 ext8296

Email: dcable@waikato.ac.nz

Professor Michael O'Driscoll Ph: +64-7-8384080 ext889

Email: psyc0181@waikato.ac.nz

Thank you for your assistance with this research. I look forward to hearing from you.

Yours sincerely,

Heather Morrell

Appendix B - Email

Hi there,

This is an invitation to participate in an online questionnaire being undertaken by Heather Morrell from the University of Waikato. The survey is investigating the attitudes that people hold towards their careers. It will take approximately 15 minutes to complete and is entirely voluntary and anonymous. Your participation in this survey has been approved by ... and your organisation. If you would be interested in completing the questionnaire please follow the link below:

[Survey Link](#)

This link will first take you to an information page about the research. If once you have read this information you no longer wish to participate in this research you may exit the survey.

Thank you for your help in this research.

Regards,

Heather Morrell

Appendix C – Information Sheet

How do individuals view their careers? A study of career attitudes in New Zealand individuals

This survey is being conducted by Heather Morrell, a Masters student in Organisational Psychology at the University of Waikato, under the supervision of Dr Donald Cable and Professor Michael O’Driscoll in the Department of Psychology.

What does the survey involve?

The survey takes about 15 minutes to complete online and asks you a range of questions about the attitudes you hold towards your career, as well as how much you like to initiate changes to your environment, how open you are to new experiences, and what stage of career you are currently at. A few questions are also included about yourself and your career path to date.

Why is the research important?

This survey is being undertaken to give people and organisations a better understanding of how individuals view their careers. This is of great importance because it helps people to understand what their own needs are in the workplace and to make satisfying career decisions. For organisations, understanding the attitudes that employees hold is of great importance for HR decisions such as what training and development opportunities should be offered. When these decisions are made with an understanding about employees’ career attitudes it is more likely that the right decisions will be reached, resulting in happy and satisfied employees.

Who can do the survey?

The survey is open to anyone who is employed by an organisation in New Zealand.

What are my rights?

- You have the right to contact me at any time to discuss any aspect of the study.

- You have the right to decline to participate or to refuse to answer any question(s).
- You provide information on the understanding that it is completely in confidence.
- Your name will not be recorded anywhere, hence no one will ever be able to link you to your completed questionnaire.
- You have the right to receive a summary of the results of the study.

I will treat your responses with total confidentiality and assure you of complete anonymity. If I decide to publish any results or give the results to your organisation they will only be in summary form and will not identify you in any way. If you would be interested in the findings of the study please email Heather Morrell and a summary of the results will be sent to you once it is available.

This research has been approved by the School of Psychology Ethics Committee.

Thank you very much for your assistance. If you have any queries please contact:

Researcher:

Heather Morrell

Phone: 0273767602

Email: heather.morrell@gmail.com

Research Supervisors:

Dr Donald Cable

Phone: 07 856 2889 ext 8296

Email: dcable@waikato.ac.nz

Professor Michael O'Driscoll

Phone: 07 838 4466 ext 8899

Email: psyc0181@waikato.ac.nz

Appendix D – Survey

This section is looking at the attitudes you hold towards your career. More specifically the questions assess the extent to which you use your own personal values to make career decisions as well as how much independence you take when managing your career.

Please indicate the extent to which the following statements are true for you:

	To little or no extent	To a limited extent	To some extent	To a considerable extent	To a great extent
When development opportunities have not been offered by my company, I've sought them out on my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am responsible for my success or failure in my career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I have a very independent, self-directed career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freedom to choose my own career path is one of my most important values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am in charge of my own career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ultimately, I depend upon myself to move my career forward	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Where my career is concerned, I am very much “my own person”	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past I have relied more on myself than others to find a new job when necessary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I navigate my own career, based on my personal priorities, as opposed to my employer’s priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It doesn’t matter much to me how other people evaluate the choices I make in my career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What’s most important to me is how I feel about my career success, not how other people feel about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I’ll follow my own conscience if my company asks me to do something that goes against my values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What I think about what is right in my career is more important to me than what my company thinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past I have sided with my own values when the company has asked me to do something I don't agree with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This section is also looking at the attitudes that you hold towards your career. More specifically it is assessing the extent to which you enjoy creating networks and working beyond your own organisation, as well as how much you like to move around during your career.

Please indicate the extent to which the following statements are true for you:

	To little or no extent	To a limited extent	To some extent	To a considerable extent	To a great extent
I seek job assignments that allow me to learn something new	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would enjoy working on projects with people across many organisations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy job assignments that require me to work outside of the organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I like tasks at work that require me to work beyond my own department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy working with people outside of my organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy jobs that require me to interact with people in many different organisations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have sought opportunities in the past that allow me to work outside the organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am energised in new experiences and situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	To little or no extent	To a limited extent	To some extent	To a considerable extent	To a great extent
I like the predictability that comes with working continuously for the same organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would feel very lost if I couldn't work for my current organisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If I believe in an idea, no obstacle will prevent me from making it happen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I love to challenge the status quo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have a problem, I tackle it head on	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am great at turning problems into opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can spot a good opportunity long before others can	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I see someone in trouble, I help out in any way I can	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This section includes questions about how open you are to new experiences.

Please use the rating scale to describe how accurately each statement describes you:

	Very inaccurate	Moderately inaccurate	Neither accurate nor inaccurate	Moderately accurate	Very accurate
I believe in the importance of art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a vivid imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I tend to vote for liberal political candidates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I carry the conversation to a higher level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy hearing new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither accurate nor inaccurate	Moderately accurate	Very accurate
I am not interested in abstract ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not like art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid philosophical discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not enjoy going to art museums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to vote for conservative political candidates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This section asks questions about your current stage of career.

Please indicate the level of concern you have for the tasks listed below:

	No concern	Very little concern	Neutral	Some concern	Great concern
Finding the line of work that I am most suited for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finding a line of work that interests me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Getting started in my chosen career field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Settling down in a job I can stay with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Becoming especially knowledgeable or skillful at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Planning how to get ahead in my established field of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping the respect of people in my field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending meetings and seminars on new methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying new problems to work on	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing easier ways of doing my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Planning well for retirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a good place to live in retirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This section asks questions about yourself.

What is your age?

What is your gender?

- Male
- Female

What ethnicity are you?

- New Zealand European
- Maori
- Pacific Peoples
- Asian
- Other European
- Other (please state) _____

What is the highest level of education you have?

- Some high school
- High school graduate
- Diploma or trade certificate
- Degree
- Degree with honours or post-graduate diploma
- Masters degree
- PhD
- Other (please state) _____

What employment sector do you work in?

- Consulting
- Education
- Finance/Banking
- Government/Public Sector
- Health and Social Work
- Manufacturing
- Sales
- Science/research
- Telecommunications
- Tourism
- Transport/logistics
- Other (please state) _____

This section asks you about your career path to date. What type of employment contract are you on?

- Permanent
- Fixed term
- Casual

How many years have you been in the workforce? (How many years has it been since you left full time education)

How many times have you changed employer since entering the workforce?

- Voluntarily
- Involuntarily

How many years have you been working for your current organisation?

How many positions have you held within your current organisation?

How many years have you worked in your current occupation?

How many occupations have you worked in since entering the workforce?

How many countries have you worked in since entering the workforce?

Appendix E – Scree Plots

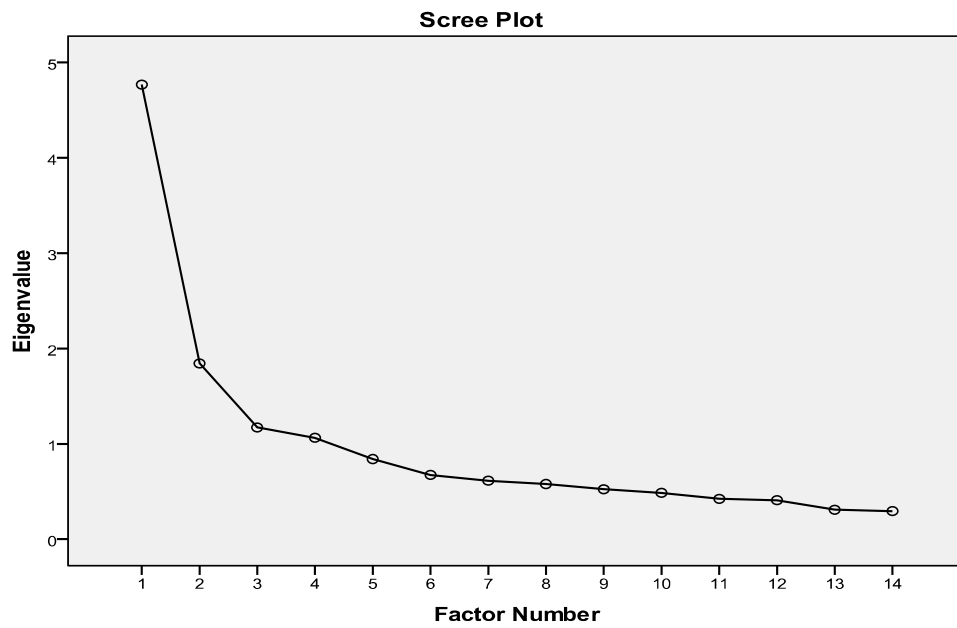


Figure E.1. Scree plot for the protean career attitude scale

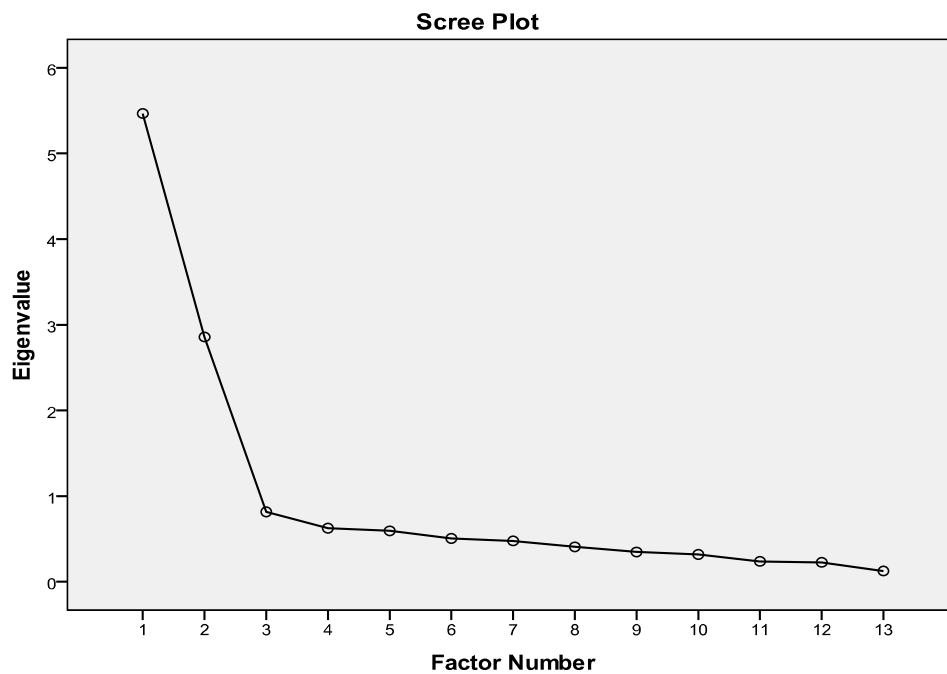


Figure E.2. Scree plot for the boundaryless career attitude scale

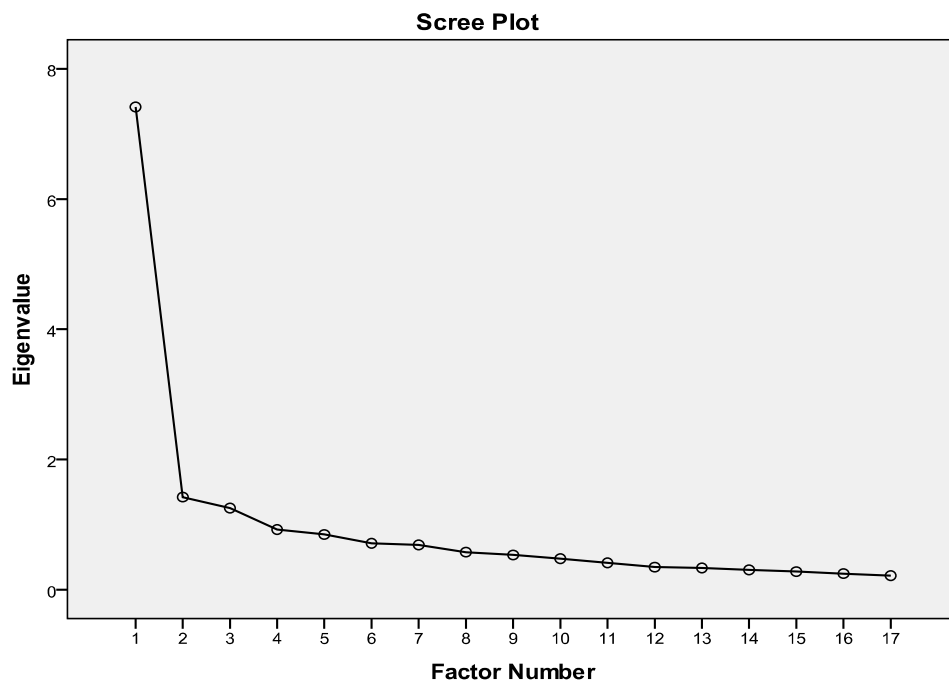


Figure E.3. Scree plot for the proactive personality scale

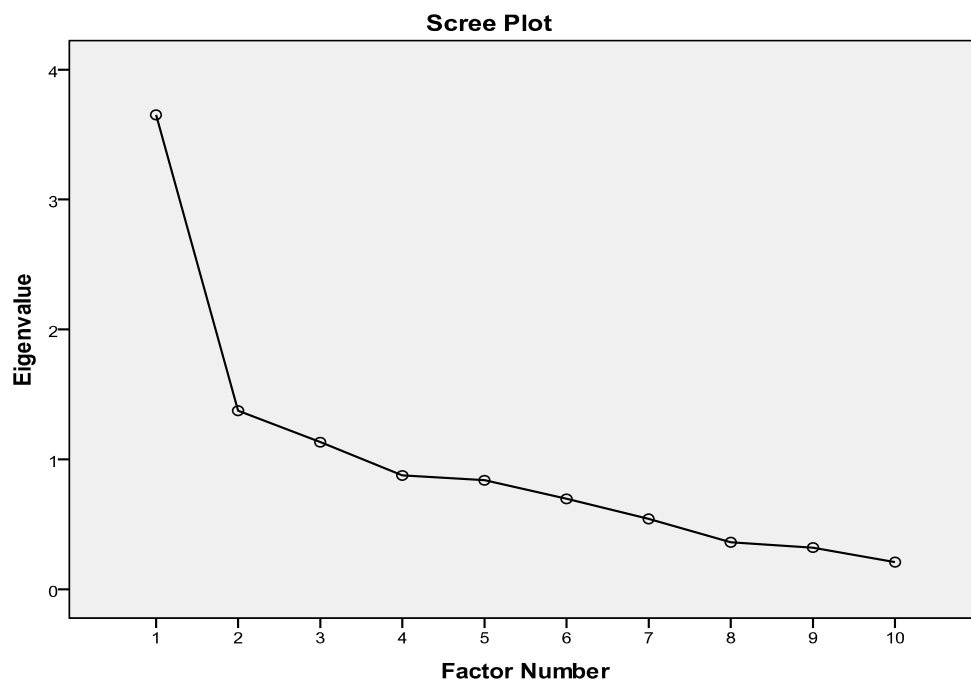


Figure E.4. Scree plot for the openness to experience scale.

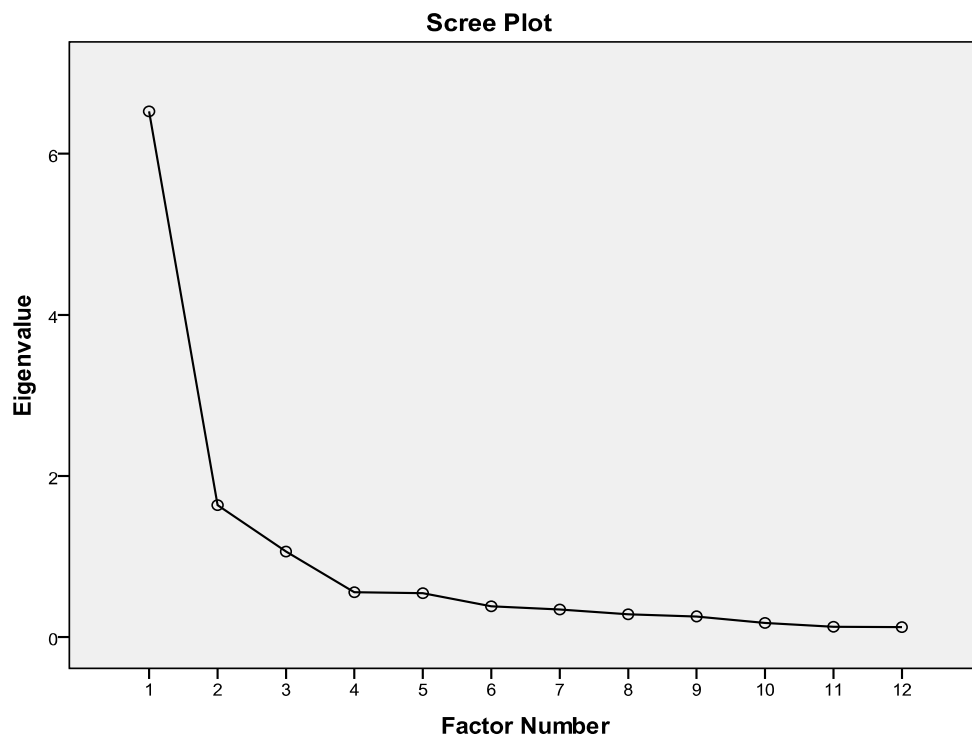


Figure E.5. Scree plot for the ACCI-Short Form.

Appendix F – Factor Loadings

Table F.1

Protean Career Attitude Scale Factor Loadings

	Factor	
	1	2
When development opportunities have not been offered by my company, I've sought them out on my own	.438	.034
I am responsible for my success or failure in my career	.584	-.074
Overall, I have a very independent, self-directed career	.736	-.005
Freedom to choose my own career path is one of my most important values	.585	.027
I am in charge of my own career	.771	-.146
Ultimately, I depend upon myself to move my career forward	.697	-.089
Where my career is concerned, I am very much "my own person"	.758	.044
In the past I have relied more on myself than others to find a new job when necessary	.306	.145
I navigate my own career, based on my personal priorities, as opposed to my employer's priorities	.430	.184
It doesn't matter much to me how other people evaluate the choices I make in my career	.374	.321
What's most important to me is how I feel about my career success, not how other people feel about it	.258	.441
I'll follow my own conscience if my company asks me to do something that goes against my values	-.067	.654
What I think about what is right in my career is more important to me than what my company thinks	.136	.627
In the past I have sided with my own values when the company has asked me to do something I don't agree with	-.109	.751

Note. Bold indicates a significant loading

Table F.2

Boundaryless Career Attitude Scale Factor Loadings

	Factor	
	1	2
I seek job assignments that allow me to learn something new	.475	.162
I would enjoy working on projects with people across many organisations	.777	-.065
I enjoy job assignments that require me to work outside of the organisation	.814	-.018
I like tasks at work that require me to work beyond my own department	.691	.066
I enjoy working with people outside of my organisation	.920	-.050
I enjoy jobs that require me to interact with people in many different organisations	.923	-.113
I have sought opportunities in the past that allow me to work outside the organisation	.744	-.006
I am energised in new experiences and situations	.582	.048
I like the predictability that comes with working continuously for the same organisation	.145	.650
I would feel very lost if I couldn't work for my current organisation	.054	.675
I prefer to stay in a company I am familiar with rather than look for employment elsewhere	-.022	.841
If my organisation provided lifetime employment, I would never desire to seek work in other organisations	-.059	.852
In my ideal career I would work for only one organisation	-.074	.767

Note. Bold indicates a significant factor loading

Table F.3

Proactive Personality Scale Factor Loadings

	Factor 1
I am constantly on the lookout for new ways to improve my life	.551
I feel driven to make a difference in the community	.438
I tend to let others take the initiative to start new projects	.422
Where-ever I have been, I have been a powerful force for constructive change	.703
I enjoy facing and overcoming obstacles to my ideas	.715
Nothing is more exciting than seeing my ideas turn into reality	.523
If I see something I don't like, I fix it	.506
No matter what the odds, if I believe in something I will make it happen	.655
I love being a champion for my ideas, even against others' opposition	.625
I excel at identifying opportunities	.771
I am always looking for better ways to do things	.754
If I believe in an idea, no obstacle will prevent me from making it happen	.621
I love to challenge the status quo	.649
When I have a problem, I tackle it head on	.704
I am great at turning problems into opportunities	.770
I can spot a good opportunity long before others can	.772
If I see someone in trouble, I help out in any way I can	.419

Note. Bold indicates a significant factor loading

Table F.4

Openness to Experience Scale Factor Loadings

	Factor 1
I believe in the importance of art	.864
I have a vivid imagination	.428
I tend to vote for liberal political candidates	.353
I carry the conversation to a higher level	.233
I enjoy hearing new ideas	.310
I am not interested in abstract ideas	.495
I do not like art	.820
I avoid philosophical discussions	.461
I do not enjoy going to art museums	.708
I tend to vote for conservative political candidates	.337

Note. Bold indicates a significant factor loading

Table F.5

ACCI-Short Form Factor Loadings

	Factor		
	1	2	3
Finding the line of work that I am most suited for	.034	.990	-.093
Finding a line of work that interests me	.029	.921	-.017
Getting started in my chosen career field	-.037	.655	.113
Settling down in a job I can stay with	.048	.556	.140
Becoming especially knowledgeable or skilful at work	.003	.305	.547
Planning how to get ahead in my established field of work	-.079	.239	.573
Keeping the respect of people in my field	.071	.100	.699
Attending meetings and seminars on new methods	.046	-.032	.802
Identifying new problems to work on	-.023	-.087	.950
Developing easier ways of doing my work	.068	-.041	.887
Planning well for retirement	.863	-.019	.043
Having a good place to live in retirement	.985	.045	-.023

Note. Bold indicates a significant factor loading.