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Listen to me:

The relationship between an organisation's listening environment and employees' openness to change.

A thesis presented in partial fulfilment of the requirements for the degree of

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Nicola McFaull

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Abstract

Change is a reality of organisational life. New technologies, globalisation, the vagaries of the economic climate, and internal organisational pressures drive change today faster than ever before. Yet failure rates for change can be up to 70%. Understanding the different drivers of change, and what promotes change success, is therefore critical. Researchers are recognising that change is essentially a human event, and that individuals have a major role in determining whether organisational change will be successful. Employees' attitudes towards change determine whether they will support or resist it. The focus of this study is on employee's *openness to change*, and the extent to which this variable is affected by the *listening environment* created in the organisation by the supervisor and also that created between team members.

An online survey was carried out of 485 employees in one public sector organisation in New Zealand. Measures were taken of employee openness to change, team listening environment, supervisor listening environment and potential demographic contributors. Findings were that the supervisor listening environment had a moderate effect on employees' openness to change. It also had a similar effect on the team listening environment. However, the team listening environment was found to have only a small little impact on openness to change. Four employee variables—position, tenure, age and gender—were considered, and all were found to influence the relationship between the supervisor listening environment and openness to change. This was especially so for managers, employees between 35 and 54 years of age, and female employees. The impact of employee characteristics on the openness to change variable was also looked at. The only demographic variable that had an impact on openness to change was the position an employee holds in the organisation.

The implications of these findings for management is that the quality of the interpersonal relationship between an employee, and their supervisor, as demonstrated by how the supervisor listens to them, creates an environment where employees feel listened to, cared for and connected. This influences an employee's willingness to support new and different things, that is, their openness to change. This contributes in turn to whether the employee will embrace change or resist it, and ultimately influences whether the organisational change will be successful.

Acknowledgements

This thesis was borne from the knowledge that organisational change impacts the lives of almost everyone today. The more scholars can find out about how it works, the better for all who are affected. Listening has long been known to be an essential component of communication and finding out the value of listening in the context of organisational change has been for me an interesting journey.

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Chapter One: Introduction

In today's ever-changing world, where technology is driving different ways of doing things, and economic conditions are often difficult, organisations need to be able to change and adapt to meet new marketplace or societal conditions in order to survive (Burnes, 2014; McKinsey & Company, 2008). Change is a reality of organisational life. The drivers for change can be external to the organisation, such as the economic climate, increased competition in a global marketplace and new technologies (De Meuse, Marks, & Dai, 2011), or internal pressures such as performance, need for efficiency, and culture (Johansson & Heide, 2008). Survival and growth of the organisation is therefore dependent on how well it can adapt to meet the rapidly changing challenges of the 21st century.

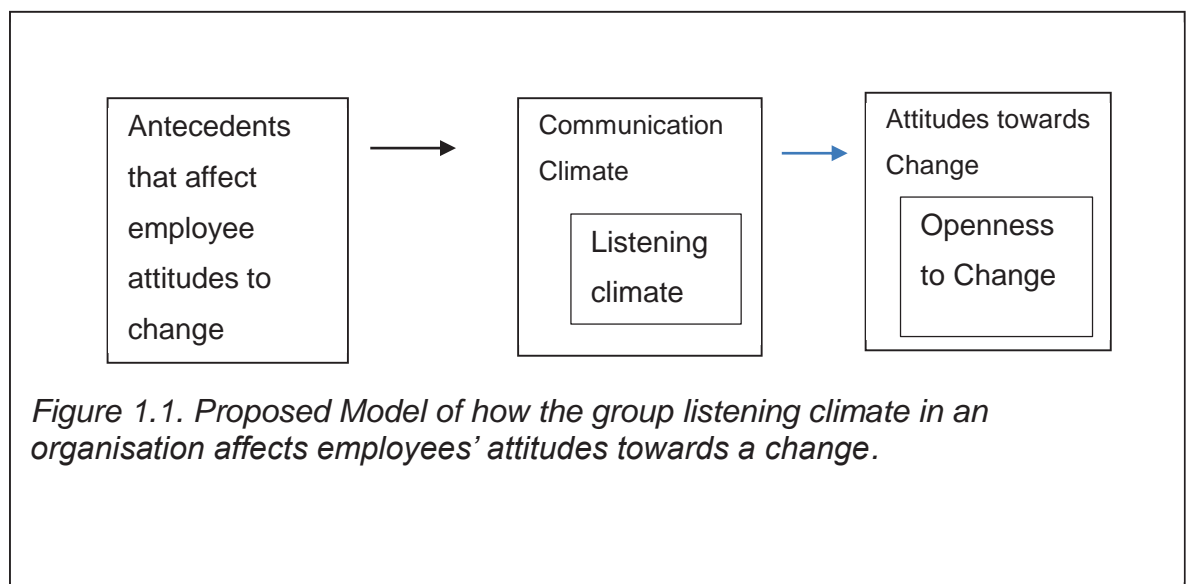
In New Zealand, the public service has been experiencing organisational change for the last two decades. The public sector has moved from the state sector reforms of the 1980's and 1990's (New Zealand States Service Commission, 1998) to the Better Public Service's ethos of the 2010's that aims to further reform the state sector to provide "high-quality, flexible and cost-effective public services" (Ryan, 2012, p.16). In fact, government agencies expect constant change as successive new governments seek to address the economic and social problems of the day, keep a cap on government spending, and place their own stamp upon the governance of the country.

However, research has shown that many organisations do not achieve the objectives of their change initiatives (Beer & Nohria, 2000; Clegg & Walsh, 2004). One reason for this is that those who lead change do not take into account the importance of the attitudes towards change of those individuals who are impacted by it. If employees do not accept new ways of working nor change their behaviours on the job, it is likely that change will not be implemented in the way change agents would wish. In fact, Keller and Price (2011) in a survey on organisational change found that more than 70% of change failures can be attributed to negative employee attitudes and poor management behaviour.

One of the biggest challenges facing organisations today is to how to manage change successfully (Burnes, 2014). Employee attitudes to change are crucial to the success of a change initiative (Keller & Price, 2004). Attitudes can include commitment to change and readiness to change as well as the little studied construct, openness to change (Choi, 2011). Openness to change has been seen as a precursor to other positive change attitudes such as readiness to change (Armenakis, Harris & Mossholder, 1993). It is also an attitude that can be applied to change in general, as well as to a specific change.

Further, it has been shown that organisational context influences employee attitudes to change (Oreg, Vakola & Armenakis, 2011). The communication climate is one such contextual antecedent. Research into the listening climate, as a part of the communication climate, has been limited especially relating to how it affects employee attitudes to organisational change. Effective listening has been shown to improve team performance and help them achieve their goals (Brunner, 2008).

As Figure 1.1 shows, this study proposes to explore the connection between these constructs: an organisation's listening environment and how it may affect the openness and willingness of employees to accept an organisational change.



1.1 Research Aim

The aim of this study is to look at the attitude openness to change and how it relates to the listening climate in an organisation, specifically that created by the supervisor and that between team members. From my own perspective, both in my personal and professional life, I have found in times of change, feeling that my views are listened to and I am able to express them freely, and perceive that I have been heard, has been an empowering experience for me and one that made it easier for me to accept a change even if it meant changing jobs or roles. When the people in a workplace are mutually supportive, listen to each other, and are responsive to others' views (the listening climate), it makes it easier to be open to new ideas and ways of doing things (Frahm & Brown, 2007; Guzley, 1992).

I propose to study if there is a connection between a supportive listening climate and employees' openness to the new things that are continually occurring in ever-changing organisations. This research may show the importance of creating an environment where employees and their managers know how to listen to each other and know that positive results can flow from this in times of constant change.

1.2 Research Overview and Objectives

The overall objective of this thesis is to further the understanding of how the organisational listening environment is related to individuals' attitudes to change, in particular, the attitudinal construct, openness to change. Since individuals are more likely to identify with their immediate workplace rather than the organisation as a whole, the focus of this research will be on the environment created by the supervisor as well as the group or team the individual works within rather than the larger organisational listening environment.

The research objectives for this study were developed through a process of reviewing the literature, identifying gaps, and developing the research design. Three objectives were identified.

Research Objective One: To explore the relationship between the attitudinal construct, openness to change, and the organisation's listening environment.

Research Objective Two: To identify demographic variables that may have an influence on the relationship between the listening environment and an employee's openness to change.

Research objective three: To understand how demographic variables impact the attitudinal construct, openness to change.

1.2.1 Research questions

The first research objective of this study explores the relationship between the attitudinal construct, openness to change, and the organisation's listening environment. This has been operationalised into two research questions.

Research question 1: Is there a relationship between openness to change and the team listening environment?

Research question 2: Is there a relationship between openness to change and the supervisor listening environment?

The next objective is to understand how the listening environment as relates to openness to change is affected by these individual demographics collected from recipients as part of our study: position, tenure, age and gender. Therefore, the following questions lend themselves to examination:

Research question 3(a). Does employee position influence the relationship between openness to change and the team listening environment?

Research question 3(b). Does employee position influence the relationship between openness to change and the supervisor listening environment?

Research question 4(a). Does employee tenure influence the relationship between openness to change and the team listening environment?

Research question 4(b). Does employee tenure influence the relationship between openness to change and the supervisor listening environment?

Research question 5(b). Does employee age influence the relationship between openness to change and the team listening environment?

Research question 5(c). Does employee age influence the relationship between openness to change and the supervisor listening environment?

Research question 6(a). Does employee gender influence the relationship between openness to change and the team listening environment?

Research question 6(b). Does employee gender influence the relationship between openness to change and the supervisor listening environment?

The third goal is to understand the construct, openness to change more deeply by examining the impact of the demographic variables on this dependent variable. Therefore, the following questions are asked.

Research question 7. Does employee position influence their openness to change?

Research question 8: Does employee tenure influence their openness to change?

Research question 9: Does employee age influence their openness to change?

Research question 10: Does employee gender influence their openness to change?

1.3 Value of this Study

This study adds to the literature on organisational change and in particular, attitudes towards change. It also makes a contribution to the understanding of the listening environment and how it can impact organisational change. As far as can be ascertained in the literature, this area has not been studied before. Therefore, the findings will help the development of understanding of how an

aspect of communication climate, the listening environment, impacts attitudes towards change.

1.4 Organisation of the Thesis

This thesis is structured so that the reader can follow the logical progression of the study. The second chapter reviews the literature pertaining to how one aspect of the internal context of the organisation, the listening environment, affects individual's attitudes to change. The chapter is in two parts. The first part sets the context for the study by examining the many theories of organisational change. Then change at the individual level is looked at and how attitudes towards change are an important factor as to whether change will be successful. Five attitudinal constructs are discussed with particular attention to "openness to change" which is the focus of this study. The antecedents of openness to change are reviewed. The second part of chapter two looks at an aspect of the internal context of the organisation, the organisational climate. The climate is broken down into the supportive climate, and the communication climate, and the argument is made that the listening environment is part of this. The listening environment is then looked at in detail. The chapter finally brings the two constructs, openness to change and the listening environment together and these form the basis of the research.

The methodology chapter outlines and justifies the methodological approach used in this study. It discusses the research setting, the sample, the survey design, and analyses the instruments used to measure the data that is being collected. It then details the procedures used to gather data including the steps that needed to be taken to gain approval to conduct research in a government setting, the testing of the survey instrument as well as a discussion of the statistical techniques used to analyse the data. Finally, the chapter ends with a discussion of the ethical considerations that were taken into account in the research process while conducting this research.

The results chapter presents the findings from the data collected and the discussion chapter subsequently discusses these findings in relation to the ten research questions and relevant literature. The chapter concludes by drawing

attention to the most significant findings, outlining the limitations of the study, and making recommendations for further research in the area of attitudes to change and the listening environment.

Chapter Two: Literature Review

2.0 Introduction

Change is a reality of organisational life. We do not need McKinsey and Company's (2008) global change survey to tell us that "organisations need to change constantly" (2008, p.1). New technologies, globalisation, and the ups and downs of the economic climate have driven change that is characterised by speed, impact, and magnitude greater than ever before (Burnes, 2014).

Change is defined as the need to move from the current state to a better one (Ragsdell, 2000) in order for the organisation, whether it is a private corporation or a public service, to survive. Change is about the future where an organisation needs to be and what needs to be done to get there. The importance of changing successfully can be shown by the plethora of literature both academic and proprietary that has sprung up around the topic of organisational change (Al-Haddad & Kotnour, 2015). Many different theories and models of change have been developed – not to mention a whole industry with its own membership and standards devoted to change management (Burnes, 2014).

The received wisdom is that a significant percentage of change initiatives fail (Burnes, 2009; Meaney & Pung, 2008; Clegg & Walsh, 2000). Estimations of failure rates can go as high as 70% (Beer & Nohria, 2000; Keller & Price, 2009). Mosadeghrad and Ansarian (2014) in a review of change programmes found failure, among other things, was attributed to lack of information, unmotivated employees, and poor communication and support. Therefore, understanding what organisational change consists of and the different drivers that promote success in change is important.

This review examines the literature on organisational change especially that related to attitudes towards change, it also delves into communication climate and, in particular, the listening environment, to find if there a relationship between the attitude - openness to change - and the listening environment in an

organisation. The first section provides an overview of the major theories of organisational change including the nature, scope, and frequency of change. The second part of this chapter examines the construct 'attitudes towards change', first looking at what attitudes are, and then the various change attitudes identified by change scholars. Particular attention is paid to the construct openness to change and the factors that influence this attitude. The third section leverages off Oreg et al's. (2011) model of change and examines the literature related to the antecedents of reactions to change which include both the personal characteristics of the individual as well as internal contextual factors such as a supportive environment, trust in management, organisational culture and climate, and the communication climate. The final section narrows down the communication climate and looks at an aspect of communication, listening, and how the listening environment in an organisation affects the openness to change.

2.1 Organisational Change

This section provides an introduction to the literature pertaining to the main aspects of organisational change including the different frameworks used to analyse change, the levels of change, the nature, pace and scope of change, and the main approaches to change management. It seeks to provide the context in which change happens.

2.1.1 Organisational change defined

What is organisational change? Gioia and Thompson (1996) see it as the way to move from a current state to a desired future state. Others see it is the achievement of organisational goals (Schein, 1996; Mullins, 2003). However, Burnes (2014) points out that the purpose of all organisations is to be effective so that they can meet their various goals. Organisational change, then, is the organisation's response to meeting the always changing needs of both external and internal stakeholders (Moran & Brightman, 2001). It is a process that enables organisations to renew themselves, in an ever-changing environment, so they can survive, and grow (De Meuse, Marks, & Dai, 2011). It is also a "reweaving of actor's web of beliefs, and habits of action, as a result of new

experiences obtained through interactions” (Tsoukas & Chia, 2002, p. 570). The forces for change can be external to the organisation, such as the precarious economic climate, increased competition in a global marketplace and new technologies or they can be internal pressures such as performance, need for efficiency, cost containment, and improved culture (Johansson & Heide, 2008). Survival and growth of the organisation is therefore dependent on how well it can adapt to meet the rapidly changing challenges of the 21st century (Dunphy, Griffiths, & Benn, 2007; Kanter, 2008).

2.1.2 Change is difficult

Change is not easy. Collins called it a “fuzzy, deeply ambiguous process” (as cited in Graetz & Smith, 2010). There is a strong belief that the failure rate of change initiatives can be as high as 70% (Beer & Nohria, 2000; Balogun & Hope-Hailey, 2004, Jannson, 2013; Jacobs, Witteloostuijn, & Christe-Zeyse, 2013). Mosadeghrad and Ansarian (2014) in a thirty-year review of the reasons behind unsuccessful change ascribed change failure to such things as a lack of information and training, unsatisfactory communication, unmotivated employees, weak employee commitment, inadequate leadership, planning and management support, and inappropriate culture. Keller and Price (2011) in a survey on organisational change found that more than 70% of change failures can be attributed to negative employee attitudes and poor management behaviour. Bourne and Neely (2003) have shown that insufficient guidance on the implementation of change affects its success. Meanwhile, Burnes and Jackson (2011) argue that change failure can be attributed to the lack of fit between the values underpinning the change and the members of the organisation.

Although the literature largely agrees that many change programmes are unsuccessful, measurement of the effectiveness of change can be elusive. The outcomes can be ambiguous with the real rationale for change often not the same as the publicly stated one (Hughes, 2011). Change outcomes may also be different from what was intended with the effect of unanticipated outcomes being either good or harmful to the organisation (Balogun, 2006). Furthermore, change can be complex and continual. There may be a number of things

changing in an organisation at the same time which, under systems theory, all impact one another (Mullins 2002). Therefore, the measurement of how effective a change is in the organisation and whether it has been successful, is not as clear cut as many scholars would have us believe (Hughes, 2011).

Graetz, Rimmer, Smith, and Lawrence (2011) provide an overview of the methods organisations use to measure change. This includes financial measures which take a whole of company perspective such as the change in share price, return on equity, market share and profit, performance against strategic targets and benchmarking against other companies. Measuring whether or not a particular change initiative has had an effect on any of these results is more difficult. Graetz et al. (2011) say that while the effects of change programmes are hard to measure overall, it is important to measure them to understand if they were successful or not. They suggest that subjective tools in the phenomenological tradition can be useful in measuring individual change programmes. This includes techniques developed by change scholars such as action research, total quality management analytical tools, and ways to measure such things as employee commitment to the change and the effectiveness of change leadership.

2.1.3 Theories of organisational change.

The organisational change literature draws from disciplines across the spectrum including psychology and sociology, management and leadership, education, and engineering management (Al-Hahhad & Kotnour, 2015). Many theories, approaches and models of organisational change have been developed over the last seventy years since Karl Lewin first developed his theory of planned change in the 1940's (Burnes, 2014). The overabundance of literature in this field underlies its complexity as different schools of thought address issues of change from differing lenses, methodologies, and ideologies (Jacobs et al., 2013). At the time of writing, there is no one accepted, universal theory of change. There is, in fact, according to Burnes (2014), no one best way to address change – as so many interrelationships have to be taken into account so, accordingly,

change is best viewed as multi-level phenomena with multiple theories to explain it.

Organisational change is typified by what Van de Ven and Poole (1995) labelled 'theoretical pluralism' (p. 510). The result is a fragmented field where different models are compartmentalised making a comprehensive and integrated understanding of this field difficult. Models of change generally show the why, how and what of change (Kezar, 2001), that is, the forces that drive change, the stages change goes through, the scale of change, its duration, and the steps taken to make the change happen.

A framework that attempts to categorise the many different theories of change process was developed by Van de Ven and Poole in 1995 and refined by Kezar in 2001. This framework groups theories by their "generative mechanisms" called "motors" (p. 510) which provide the stimulus for how change happens. Van de Ven and Poole (1995) analysed over 200 theories of change and grouped them into four categories: life-cycle theory, teleological change, dialectic or political change, and evolutionary change. Two more categories added by Kezar (2001) were social cognitive change and cultural change. Each category represents many different models of change. These categories do not necessarily stand alone, but often can overlap and share assumptions as shown in Bolman and Deal's, and Rajagopalan and Spreitzer's, models (as cited in Kezar, 2001). Figure 2.1 (Van de Ven & Sung, 2001, p. 60) shows the four process models of organisational change stemming from Van de Ven and Poole's (1995) four schools of thought.

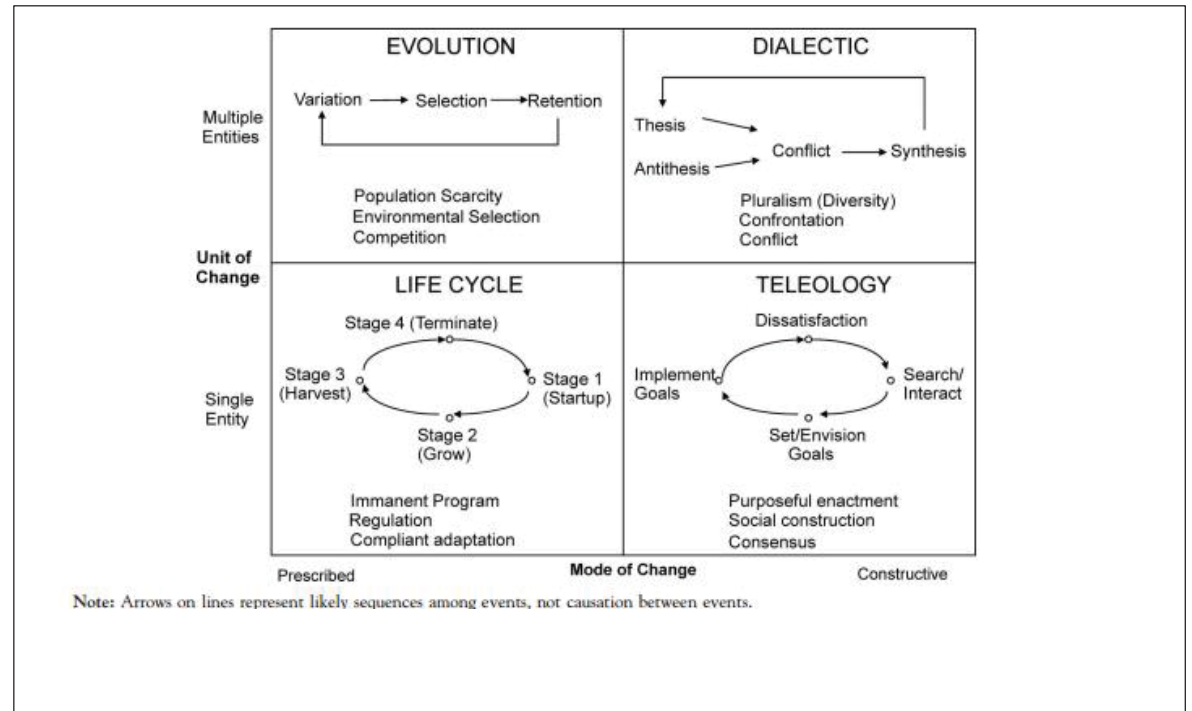


Figure 2.1. Process Models of Organisational Change

Evolutionary or adaptive change proposes that change is managed as it happens. It is the organisational response to changing environmental conditions and change happens slowly rather than in chunks or planned activities (Kezar, 2001). It is an ongoing cycle where change in organisations emerges by chance; competition for resources drives the selection of new organisational arrangements along with the retention of current structures (Van de Ven & Poole, 1995). Dialectical theory proposes that change occurs when opposing events, forces or values compete for domination (Van de Ven & Poole, 1995). These opposing entities confront the status quo and if they have enough power can challenge the current situation and the resolution produces an entirely new construction. Life cycle theory is based on the idea that organisations follow a developmental progression with a beginning and an end. Change ultimately produces the start of a new organisational identity (Jones & Brazzel, 2014). Teleological change models are purposeful and goal driven (Kezar, 2001; Van de Ven & Poole, 1995). Under this school of thought change processes are

planned and rational. Change can include participation of organisational members as plans are developed to address issues, problems, and opportunities; develop and implement organisational goals and evaluate the outcome of the planned changes (Van de Ven & Poole, 1995; Van de Ven & Sun, 2011).

Two additional theories are the social cognition and the cultural models which, in the main, come from the social constructivist tradition (Kezar, 2001). Models that fall under the cognitive school associate learning with organisational change and include concepts such as “knowledge structures, paradigms, schema, cybernetics, sensemaking, cognitive dissonance and interpretation” (Kezar, 2001, p. 45). How the individual interprets and makes sense of change, building on their prior knowledge and perceptions of their world, is at the foundation of these models. The individual and how change occurs is at the centre of this school of thought. The cultural model is according to Kezar (2001) a blend of social cognition and dialectical theories and focuses on values and beliefs and the complexity of the organisation as it pits change with the alteration of deeply held, collective beliefs of organisational members.

2.1.4 Change targets

According to Katz and Khan (1978), organisations seek to change at three levels – the individual, group and system. Dunphy and Stace (1988) refer to change happening to strategy, structure, people, and processes. Changes can be made to organising arrangements such as strategic goals, policies and procedures, systems, and ownership; social factors such as culture, management style, and employee qualities; and physical settings such as the work station design and ambience; and technology whether it be equipment and resources, IT, technical expertise, and job design (Porras & Robertson, 1992).

Burnes (2014) identifies three schools of thought – individual perspective, group dynamics and the open system. The focus for change at each of these levels depends upon what needs to change. At the individual level are the Behaviourists and the Gestalt-Field scholars. The former believe that human behaviour is learned and, like Pavlov’s dog, individuals modify their behaviour in

response to an expected reward for that behaviour (Lovell, as cited in Burnes, 2014). The Gestalt-Field school take into account not just human actions but their perceptions of a situation or event. Individual behaviour changes in response to their interpretation of what a situation means for them. Actions at the individual level may include retraining or coaching.

At the group level, change is brought about by changing a group's values, practices and perceptions which then, in turn, influence the individual actions. Group norms can be explicit (written rules) or implicit (informal) and they contribute to how a group as a whole is expected to act (Lewin, 1947; Burnes, 2014).

The third level of change is at the organisational level. This includes the open systems approach which was popularised by Senge (1990). Organisations do not exist in a vacuum, they are open in that they connect with the external environment, other organisations, stakeholders, customers, and so on. They also interact internally with the various sub-systems that comprise the organisation (Burnes, 2014). According to Kast and Rosenzweig (1972), the main organisational sub-systems are those that comprise goals and values, technical considerations, psychosocial, and managerial. These can also be viewed as leadership, people, structure and technology (Mullins, 2002). In the open systems approach, changes in any part of the system, internal or external, affect the other parts of the system. Al-Haddad & Kotnour (2015, p. 238) sets out the different dimensions of change in Figure 2.2.

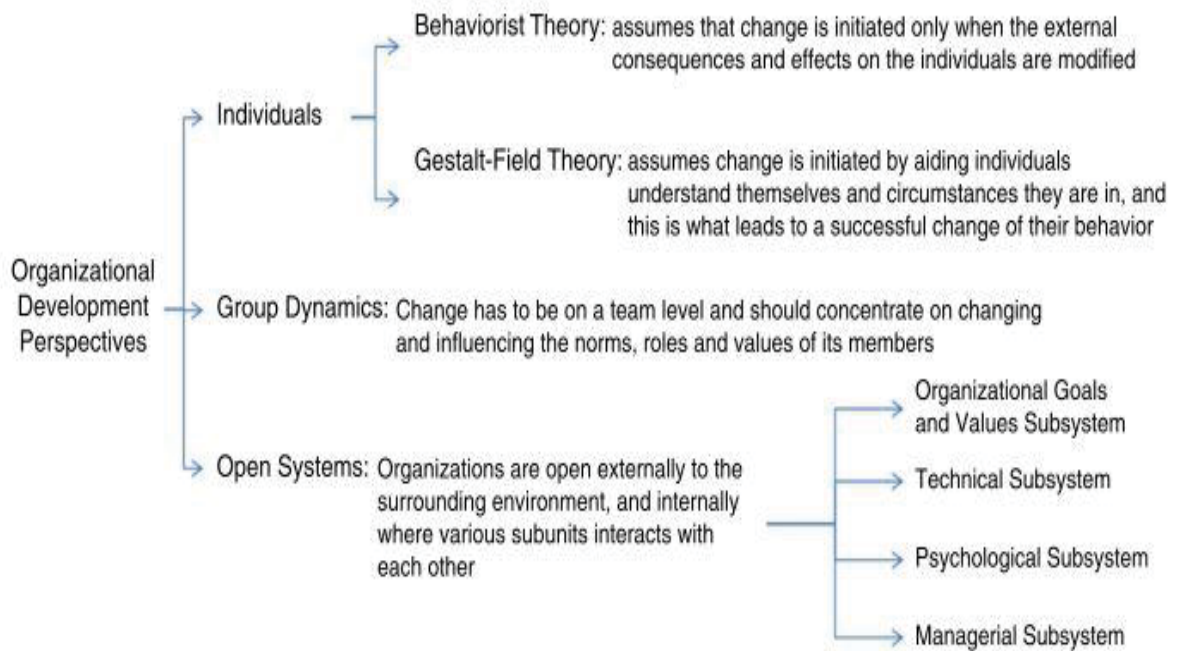


Figure 2.2. Levels of Change

2.1.5 Dimensions of organisational change

An understanding of key change concepts enables organisations to select the appropriate form of change to achieve their desired outcome (Moore, 2011). Change can be viewed through different dimensions such as nature, degree, timing, and scale of change (Kezar, 2001). The analysis of change frameworks has produced a “plethora of labels” (Smollan, 2009, p. 56) as change is viewed through different lenses. Degrees of change have been identified by Watzlawick, Weakland, and Fisch (1974) as changes within the system (first order change) and the system changing itself (second order change). It has also been viewed in terms of states – alpha change consisting of small changes in a stable environment, beta change happening in intervals and gamma change consisting of a completely new organisational template (Golembiewski, Billingsley, & Yeager, 1976).

Bartunek and Moch (1987) use the cognitive approach seeing degrees of change in terms of schemata – how individuals, group and organisations make sense of change. For them, first order change supports current understandings with changes a response to improving the current effectiveness of the

organisation. Second order change phases in new ways of thinking and acting, attempting to change the organisational members' schemata. Third order change is about empowerment, enabling members to be aware of the need to change and make first and second order changes as they see fit.

The Change Triangle, as shown in Figure 2.3, (Huy & Mintzberg, 2003, p. 80). suggests that the three types of change - dramatic, systematic, and organic change do not occur in isolation, they interact in what they call "the rhythm of change" (Huy & Minizberg, 2003, p. 80). Dramatic, top down change, transforms the organisational environment, however, eventually everything settles back down to constant, systematic change. Organic change occurs bottom-up, and is when organisational members use their own initiative to make change.

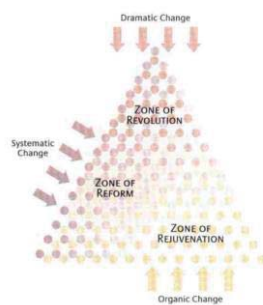
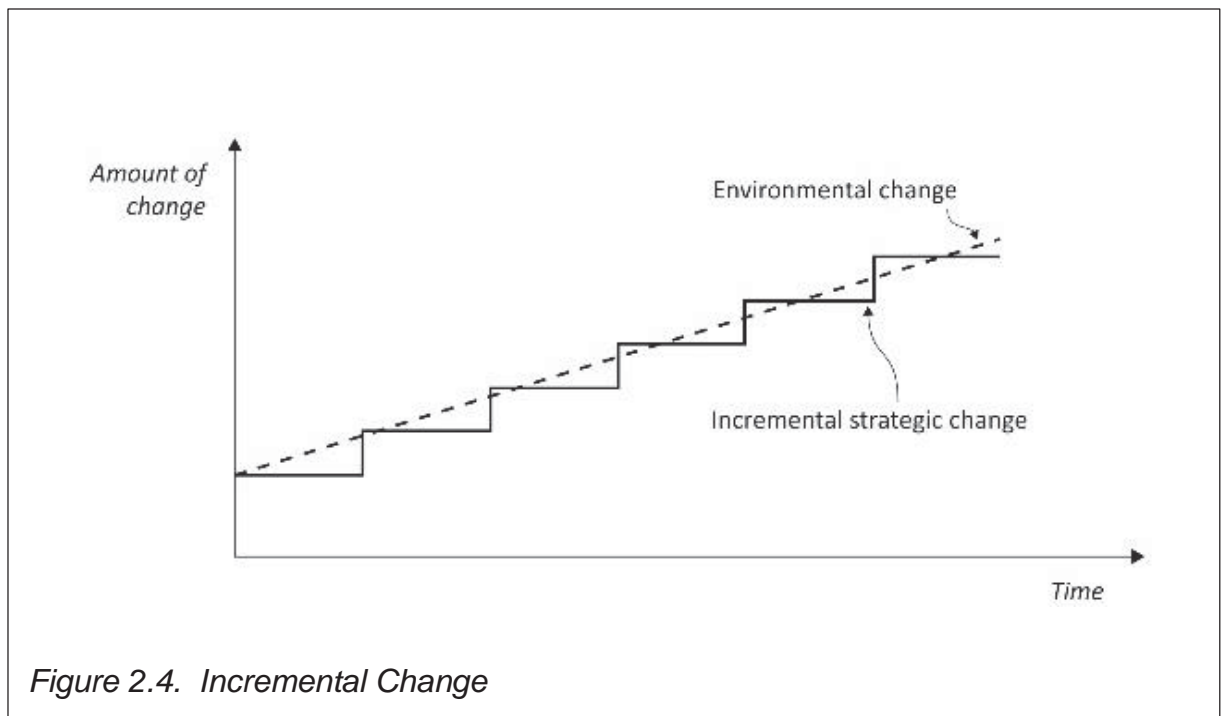


Figure 2.3. The Change Triangle.

The incremental model of change, as shown in Figure 2.4, (Burnes, 2014, p. 344) is much like Huy and Mintzberg's (2003) systematic change. The incremental approach is a well-established model typified by change that takes place in "successive, limited, and negotiated shifts" (Pettigrew, 1992, p.14). Incremental change is associated with planned change where change happens in an orderly way (Quinn, 1980). The organisation responds to issues, problems, and opportunities, in manageable steps and adjustments are made in a way that employees can adapt to slowly.



Transformative change occurs when organisations go through a fundamental change rapidly often in response to an event in the environment that changes the organisational landscape.

Romanelli and Tushman's (1985, 1994) punctuated equilibrium model theorises that transformative change comes in at great speed and changes the current environment. However, the organisation then returns to a stable, orderly state until external forces require change again.

Beer and Nohria's (2000) Theory E and Theory O is another perspective on types of change. Theory E is about the economics of the change, how value is created by changing structures and systems to reduce costs. Typical change under Theory E would be downsizing and restructuring. Theory O changes support the development of the organisation to increase its capacity to respond to the needs of stakeholders. Changes under Theory O are such things as changing the culture, the way employees behave and their attitudes about the organisation.

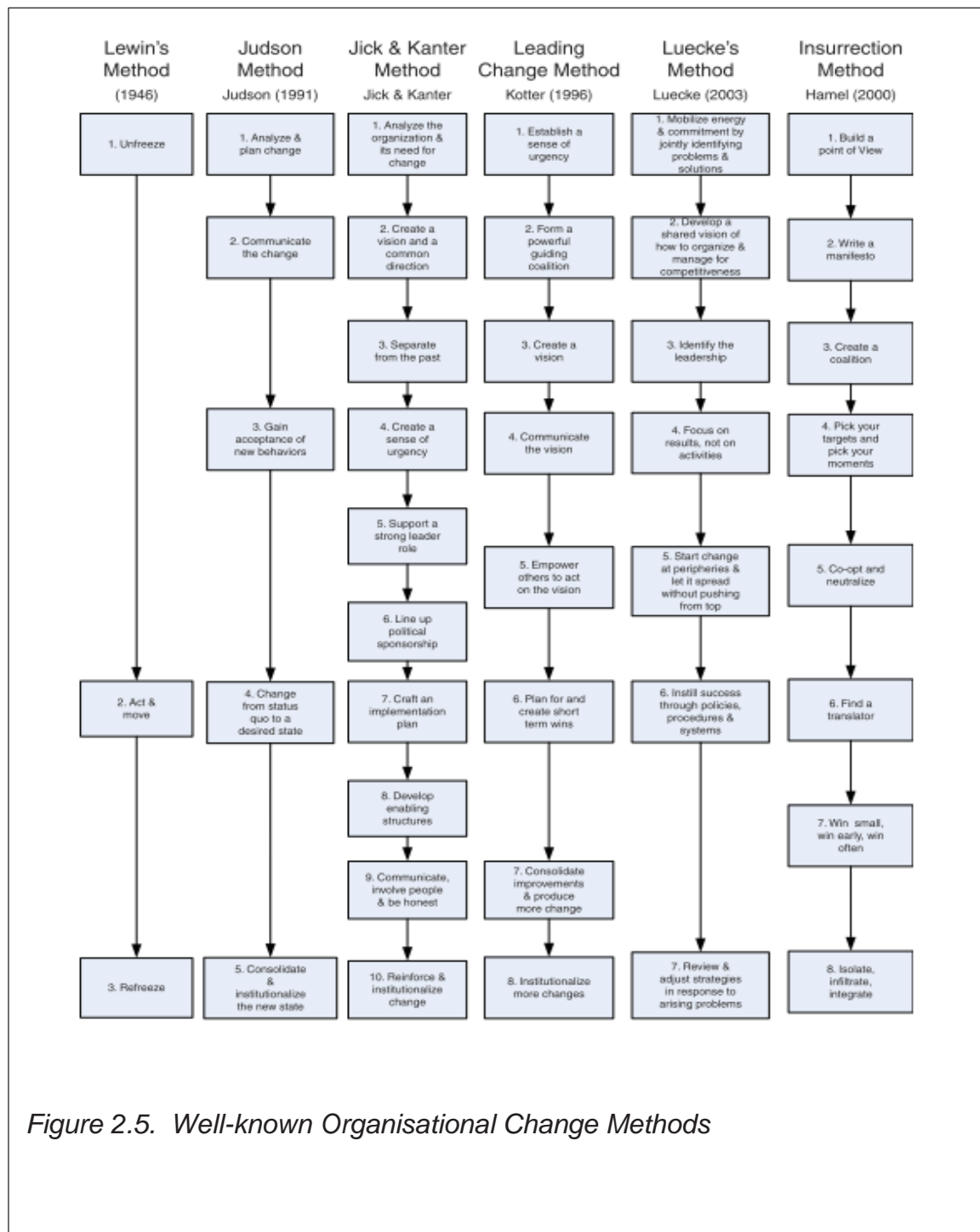
Boonstra (2004) conceptualises different models of organisational change as on a continuum with the planned approach at one end and the developmental

approach at the other. A planned approach to change is driven from top management, goal-driven, and usually developed as a response to a problem that needs a solution (Burnes, 2009). The first scholar to coin this term was Karl Lewin who devised a three step model of change (Lewin, 1951) arguing that before change can happen the organisation has to be motivated to change – what he called the unfreezing. The next stage is the learning stage – where the members of the organisation adapt to the new state – the moving. The final stage is where the group moves to a new equilibrium and the new state is institutionalised in the organisation – the refreezing stage. The organisational development model grew out of the planned approach and focuses on the organisation as a learning entity and uses this view and training, coaching and action research to facilitate change as it develops in the organisation over time.

Another main approach to change is the emergent school which sees change as a process of ongoing, continual change, organisations as living and changing entities, and members continually making sense of and adapting to their changing world (Burnes, 2014). In the continuous model the organisational changes come from the bottom up as members make sense of and react to everyday changing events. From a communicative point of view, change in this way works with the interpretivist and constructionist point of views as it consists of organisational members interpreting events and experiences into social constructs, exchanging these social realities with others, and developing new interpretations of reality (Johansson & Heide, 2008). Rather than being episodic, continuous change can be conceptualised as an ongoing “stream of interactions” and change happens through the social interaction which generates new meanings as a new reality is created through communicative events (Tsoukas & Chia, 2002, p. 568).

The consensus among scholars is that there is no one right model of change but that the approach should be tailored to the context of change. Many different change management methods have been developed over the last fifty years to assist with the implementation of change. Although this review does not attempt to examine these models in any depth, a summary of eleven well-known

methods are set out in Figure 2.5, as developed by Al-Haddad and Kotnour (2015, p. 215).



The following section sets out how change happens from an individual level perspective and how focusing on that level can be a factor in successful change.

2.2 Organisational Change at the Individual Level

Much organisational change research has focused on organisation-wide issues relating to change such as technology, structures and system-wide changes (Devos, Buelens, & Bouckennooghe, 2007; Fedor & Herold, 2004). However, researchers are recognising that a micro-level perspective is also important and the major role change recipients' reactions play in determining whether a change will be successful (Oreg, Vakola, & Armenakis, 2011). The various attitudes employees hold, positive and negative, towards a change initiative can lead them to either support or resist it, and so understanding these attitudes and the factors that influence them are crucial in understanding whether a change initiative will succeed (Devos et al., 2007).

A number of scholars have conducted meta-analyses of the attitudinal constructs that relate to organisational change (Bouckennooghe, 2010; Choi, 2011; Oreg et al., 2011). Attitudes to change can be defined as tri-dimensional concepts which include cognitive, affective and behavioural components (Oreg et al., 2011; Elizur & Guttman, 1976) all of which influence how an individual evaluates and reacts to a change situation. Reactions to change have many labels: readiness to change, commitment to change, resistance to change, openness to change, attitudes towards change, cynicism towards change, willingness to change and receptivity to change (Oreg et al., 2011).

Various change researchers have attempted to put a framework around the many different theories of change (Armenakis, Harris, & Mossholder, 1993; Armenakis & Bedian (1999); Devos et al., 2007). After reviewing 79 quantitative articles on reactions to organisational change, a framework of change was developed by Oreg et al. (2011) that set out the conditions that affect how employees feel, think and behave about change. These variables as well as the reactions themselves have impacts on the employee both at work and at home.

Organisational antecedents in the Oreg et al. (2011, p. 466).) model (see Figure 2.6) that have been found to influence employee reactions to change include the individual characteristics of those employees undergoing change, the internal context within which the change is happening, the process in which the change

is carried out, the way employees perceive the change, that is, negatively or positively and the nature of the change. The model also provides for the change consequences which are the outcome of both the antecedents of change as well as being mediated by the explicit reactions to change which are attitudinal in nature.

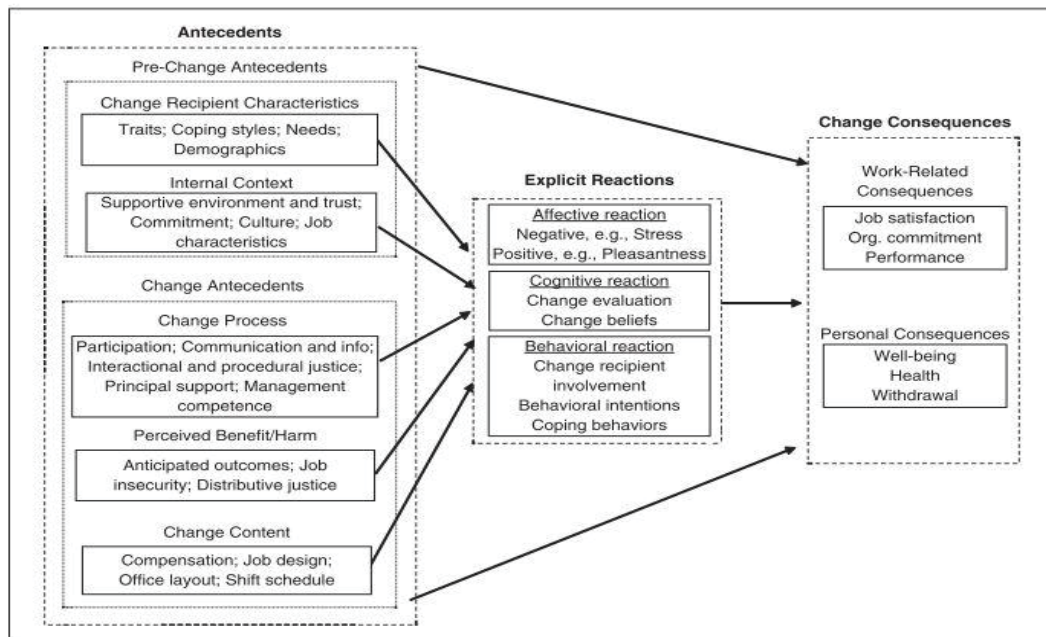


Figure 2.6. Antecedents, explicit reactions, and change consequences of organisational change

Author notes – each variable shows only a sample of variables in each category

Change is a human endeavour. It does not happen if individuals do not alter their behaviour and make the appropriate changes needed in the way they carry out their work (Jones, Jimmieson, & Griffiths, 2005). If change agents do not take into account employees' attitudes and behaviours towards a change, the specific change is likely to fail (Armenakis, et al., 1993). Understanding the various attitudes employees hold, both positive and negative, towards a change

initiative is therefore important to its success. These attitudes lead them to either support or resist a change and the factors that influence them are crucial in understanding whether a change initiative will succeed (Devos et al., 2007).

2.2.1 Overview of attitudes

Attitudes are central to our understanding of behaviour as they explain how people perceive the social and physical world and how they respond to it (Albarracin, Wang, Li, & Noguchi, 2008). Many researchers agree with Eagly and Chaiken's (1998) definition that an attitude is "a psychological tendency, expressed by evaluating a particular entity with some degree of favour or disfavour" (p.273). For Bohner and Dickel (2011) an attitude is an "evaluation of an object of thought" (p. 392). Others are more specific, "a relatively enduring organisation of beliefs, feelings, and behavioural tendencies towards socially significant objects, groups, events or symbols" (Vaughan & Hogg, 2005, p. 150). Prislín and Crano (2006) see that attitudes are combinations of cognitive and affective reactions towards an object and can have varying strengths.

Attitude objects refer to anything individuals think about – it may be people, ideas, places, things, behaviours or events (Albarracin, Wang, Li & Noguchi, 2008). The evaluation of an attitude object can sit on a continuum of favourability to negativity with ambivalent attitudes sitting somewhere in between (Eagly & Chaiken, 1993). It can be viewed with a temporal lens as either enduring and stable objects stored and retrieved from the memory or a construction where judgements about a target object are formed instantly using currently available information which may include previously formed evaluations (Gawronski, 2007).

Attitudes can have explicit or implicit representations. One definition of explicit attitudes is they are evaluations of an attitude object based on "controlled or deliberate processes" whereas implicit attitudes operate out of "unconscious awareness or control" (Devos, 2008, p. 61). Fazio and Olson (2003) argue that explicit and implicit attitudes may be in fact the same attitude but distinguished by where they sit on a continuum. The measurement of attitudes can be either implicit or explicit. Explicit attitudes are those that people are aware of and can

be asked directly about, whereas implicit attitudes can be measured without people being aware of them (Petty, Fazio, & Brinol, 2009).

Attitude strength refers to how persistent or durable an attitude is and its impact or effect on people's lives (Krosnick & Petty, 1995). Strong attitudes are those that are resistant to change, and persist over time. They also impact how information is processed and judgements made and are more likely to guide behaviour than weak attitudes which are seen as more flexible (Fazio, 1995). Attitudes can have negative and positive valence dimensions with the former seen to have more impact over time (Conner & Armitage, 2008).

A well-established model of attitude formation is the tripartite view of attitudes consisting of three classes of evaluative responses: affective, cognitive and behavioural/ intentional (Rosenberg & Hovland, 1960; Bagozzi, Tybout, Craig, & Sternthal, 1979; Lines, 2005). According to Greenwald (1968) each component is formed by different mechanisms. Affective responses are formed through a classical conditioning process where the attitude object is paired with a stimulus. Affect can be mapped on two dimensions, degree of pleasantness, and the strength of the emotional reaction (Lines, 2005). Feelings towards an attitude object, such as a change process, can elicit positive emotions such as happiness, hope, and satisfaction at one end of the continuum and negative emotions such as anxiety, fear, and anger at the other end.

Cognitive attitudes are beliefs about the attitude object and are acquired through a learning process. In a work situation, one conception is that cognitive reactions are often in response to the individual's evaluation, based on knowledge, as to how the change will impact job dimensions such as skill variety, task identity, job significance to the person and their life, task autonomy, and task feedback (Hackman & Oldman, 1980). The valence, (positive or negative reaction) and the strength of an attitude are formed in response to the employee's beliefs about the change on these dimensions. The behavioural component of an attitude is the way a person intends to behave around an attitude object. It is based on past evaluations. The MODE (motivation and opportunity as determinants) model (Fazio 2007) sets out how behaviour – that is following a course of action – can be determined from the way attitudes are

held by the individual. This involves either considered evaluations of the course of action based on the attitude stored in the memory versus an instant reaction with no active consideration of the attitude object. In the latter case, reactions to the attitude object are activated from the memory automatically with no actual awareness of how they were formed (Bohner & Dickel, 2011).

2.2.2 Attitudes towards change

Attitudes toward an organisational change can be defined as a person's overall evaluation of a change situation (Petty & Wegener, 1998) and is a psychological tendency that is expressed by evaluating the change with some degree of favour or disfavour (Eagly & Chaiken, 1993). As with attitude theory, attitudes towards change have been defined as a tri-dimensional concept which includes cognitive, affective and behavioural components (Pideret, 2000; Elizur & Guttman, 1976; Vakola and Nikolaou, 2005) each of which reflect an individual's evaluation of and reaction to a change situation. Affective responses refer to feelings or emotions about the change such as fear or anger, if they see the change as negative, or enthusiasm or excitement, if it has a positive impact on them. Cognitive responses are thoughts and beliefs employees have about the change. This can be typified by the employee evaluation of the advantages and disadvantages to them about the change. Behavioural responses refer to employee actions or how they intend to act. For instance, they may complain about a change to their workmates, ignore the new change methods or embrace the change enthusiastically (Van den Heuvel, Schalk, & Van Assen. 2015). Therefore, people can feel happiness about the change, excitement, pleasant feelings, and anticipation leading to positive intentions to support the change. Alternatively, they can be anxious, fearful or angry and thus, may not support it. Ambivalent reactions, where individuals can feel both positive and negative responses towards change are common (Pideret, 2000). For example, an employee may feel excited about new opportunities change opens up for the organisation but anxious how to how it will personally impact their job.

Categorising attitudes as either positive or negative, although useful from a research point of view may not represent the complexity underlying attitude

responses. Van den Heuval et al. (2015) proposes a continuum of responses from positive to negative reactions. However, although an employee does not accept a change situation, it does not mean they actively resist it but may be ambivalent about the change. Wittig (2012) views reactions on a spectrum ranging from resistance to acceptance with ambivalence having a place on the range of responses.

How employees adjust to change, and how they are managed through this process, are factors that contribute to the success or failure of a change initiative (Armenakis & Bedian, 1999). Eby, Adams, Russell, & Gaby (2000) characterise successful attitudinal change as that where employees are enthusiastic about the change, open to learning about the change and how they can work with it, adapt to it and willing to put the extra effort in to make it work. Negative responses to change are typified by affective reactions such as “uncertainty, anxiety, hostility and threats” (Eby et al., 2000, p.17).

Choi (2011) identified four attitudes towards change which are frequently used as the key variables in studies that have examined employee support for change. These are readiness for change, commitment to change, cynicism about change and openness to change. Choi shows that each of these constructs has distinct meanings and reveals different aspects of an employee's cognitive, behavioural or affective evaluations of a change. She theorises that these attitudes can be seen as states and are in the main influenced by situational variables. Choi calls for more empirical work to be done on attitudes that are supportive of change, to improve the understanding of the drivers that lead people to accept change and thus improve the way organisations implement change. Furthermore, her review of these positive attitudes towards change revealed that they shared many of the same antecedents suggesting common elements across them which would benefit from further research.

Bouckennooghe (2010) in a narrative review of 58 journal articles on attitudes towards change, identified, along with those four already discussed by Choi, a further four attitude-related constructs that fit under this change attitudinal umbrella: resistance to change, acceptance of change, coping with change, and

adjustment to change. However, he makes the point that the literature has focused mainly on five key attitudes to change and these are outlined in the following paragraph.

The following section provides an outline of four of the five key attitudes to change. On the negative side is resistance to change and cynicism about change and those attitudes with a positive focus are readiness to change and commitment to change. Then a special section is introduced that concentrates on openness to change which is the construct which forms part of the study under examination in the report.

2.2.3 Resistance to change

Resistance to change is one of the most widely studied of the attitude towards change found in the change literature and, unlike readiness to change, its definitions vary widely (Dent & Powley, 2003). In many studies resistance is seen from the point of view of the change agent who views opposition to change by the recipient as an obstacle to the successful implementation of the change and something to overcome (Pideret, 2000; Smollan, 2011). Periperl (2005) defines resistance as “active or passive responses on the part of a person or group that militate against a particular change, programme or change in general” (p. 348). Dent and Goldberg (1999) contend that organisational members often resist the consequences of the change rather than the change itself. Other conceptualisations have been developed in the literature that challenge resistance as a negative force (Ford, Ford,, & McNamara, 2002; Lines 2005); embrace it as a useful modifier to change plans as employees push back at actions that violate their ethics, autonomy, or that they perceive to be detrimental to the organisation (Oreg, 2006; Burnes, 2014); and see it as a positive force for learning as employees’ resistance to a change forces a reconsideration of those actions (Ford et al., 2002).

The nature of resistance has been explored from three points of view: mechanistic, social and conversational (Ford, & Ford, 2009). The mechanistic view of resistance borrows from physics where resistance is a force that slows or halts motion and energy is needed to counter this negative force (Pideret,

2000; Ford & Ford, 2009). Lewin's (1951) field theory hypothesises that individual and group organisational behaviour changes when forces for change interact with forces against the change that try to keep things as they are. The resulting movement of these opposing forces results in a new equilibrium (Burnes, 2014).

One of the first studies of resistance to change was Coch and French's (1948) experiment at Harewood in the United States. This study is considered one of the seminal works on resistance, and is grounded in Lewin's (1947) work. It set the scene for viewing resistance as a force shaped by the context of the change. Their findings show that the amount of participation an employee has in the change process is related to their productivity and that employee turnover and negative responses to the change are negatively related to employee participation (Coch & French, 1948).

A social interpretation of resistance frames it not as a product of the organisational context or system but firmly with the individual or group. Resistance is something to be overcome, detrimental to the organisation and "over there, in them/it" (Ford & Ford, 2009, p. 218). The theory of dispositional resistance contends it is the individual that is the main source of resistance to change (Burnes, 2014). Some individuals are more predisposed to resist change, respond negatively to change with emotions such as fear, anxiety, and anger, and have distinct personality factors that contribute to this (Oreg, 2003). These have been identified as rigidity of thinking, preference for routines, short term focus and a strong emotional reaction to change (Oreg, 2006).

The context of change can, however, moderate those who are dispositionally inclined to resist change (Michel, 2013). Oreg and Sverdlik (2011) found that contextual factors, such as the quality of the relationship between the change recipient and change agent, moderates the employee's attitude to the change, and they are more likely to view the change as a positive thing rather than something to resist. The nature of the change is another factor that affects resistance. The deeper the impact of the change on the individual the more likely they will resist it (Burnes, 2014).

Festinger's (1957) theory of cognitive dissonance has also been used to understand resistance to change. People feel most comfortable when their beliefs/cognitions and behaviours are in harmony. When this internal consistency is affected, tension is created by these different beliefs or behaviours. To return to a state of consonance or equilibrium individuals are motivated to change their attitudes or behaviours. Applying this theory to change situations, Burnes and Jackson (2011) found that if the level of dissonance created by the change is high, such as a disconnect between an organisation's values, culture and norms and the change, then it is likely to meet with resistance unless strategies are employed, such as participation and communication which may persuade individuals to alter their attitudes and behaviours to meet the new situation and accept the change.

Oreg (2006) proposes that resistance to change is a multi-faceted construct whose antecedents include both contextual and personality factors. Contextual factors can include power and prestige, job security, intrinsic rewards, trust in management, communication/information and social influence (Oreg, 2006, p. 75). Aligning contextual factors with the three distinct attitudinal components of resistance to change: affective, cognitive and behavioural, his research found that different factors corresponded with different dimensions. For instance, changes to outcome factors, such as job security, power and prestige were associated with the cognitive and affective components. Trust in management, a process factor, affected all three components whereas the influence of the group/ teammates reactions was associated with the affective and behavioural aspects of resistance to change.

2.2.4 Cynicism about organisational change

Organisational change cynicism stems from an organisation's attempts to change that have been unsuccessful. Employees that have witnessed numerous change efforts in the past, that did not meet stated objectives or expectations, can become pessimistic and sceptical regarding the organisation's ability to change and the leaders' capability to implement the change (Wanous, Reichers, & Austin 2000).

Cynicism has been defined as both a general and specific attitude, characterized by “frustration, hopelessness, and disillusionment, as well as contempt toward and distrust of a person, group, ideology, social convention, or institution” (Andersson, 1996, p. 1398). Dean, Brandes, & Dharwadkar, (1998) found it to be “a belief that the organisation lacks integrity” along with feelings of “distress, disgust, and even shame”, leading to “tendencies toward negative, and often disparaging behaviour” (p. 345 - 346). Stanley et al. (2005), focusing on change specific cynicism, saw it as a predictor of resistance to change. Their definition comprises of a “disbelief of management’s stated or implied motives for a specific organisational change” (p. 436).

Antecedents that affect cynicism about the change include employee’s discernment of the lack of genuine management support or capability for a change (Wanous et al., 2000; Fleming 2005), a deficient relationship between subordinates and superiors (Bommer et al., 2005), perceptions of the lack of fairness about the change (Connell and Waring, 2002), and lack of information-sharing from superiors (Reichers et al., 1997). In reality, it seems that cynicism develops from employee expectations about a change situation that were not met by the organisation (Barton & Ambrosi, 2013).

2.2.5 Commitment to change

Commitment as a construct has been widely studied in the organisational context and is considered an important variable in interpreting employee behaviour and its consequences (Choi, 2011). It has been defined as the relative strength of an individual’s linkage to the organisation and is characterised by “a belief in and acceptance of the organisation’s goals and values, a willingness to exert considerable effort on behalf of the organisation and a strong desire to maintain membership in the organisation” (Mowday, Steers, & Porter, 1979, p. 226.) It has also been defined as “a force that binds an individual to a course of action of relevance to one or more targets” (Meyer & Herscovitch, 2001). It is the factor that leads to the individual being most likely to remain in an organisation. Commitment has been found to be related to pro-social organisational and organisational citizenship behaviours including

employees making extra, out of job role, effort to ensure that the change succeeds.

Building on their influential three-component model of commitment, Meyer and Herscovitch (2002) identified commitment to change as multi-dimensional: affective, continuance and normative. Each of these different types of change commitment relates differently to support for the change. Affective commitment relates to support for change based on a belief that it will benefit the organisation, and the individual. Continuance change commitment is associated with the costs to the employee if they do not support the change, such as losing organisational membership and being left out of the group. Normative change commitment is an employee's support for the change out of a sense of duty or obligation to the organisation (Meyer & Herscovitch, 2002; Bouckennooghe, Schwarz, & Minbashianb, 2015). Commitment to change is a positive force and has been related to consequences such as lower turnover intentions, organisational citizenship behaviours, and expending extra effort to make change happen.

2.2.6 Readiness to change

According to Bouckennooghe (2010), change readiness is the second most researched of the attitudinal concepts in the organisational change literature. At the individual level, readiness to change has been defined as "an individual's beliefs, attitudes and intentions regarding the extent to which changes are needed as well as the organisation's capacity to successfully undertake those changes" (Armenakis, et al., 1993, p.681). Later conceptualisations added an individual's positive affect towards the need for change and the likely or anticipated impact of the change on the individual and the organisation (Jones, et al., 2005).

The belief an individual has about a change, their cognitive attitude, leads to the change being resisted or supported (Armenakis et al., 1993). Thereby, strategies that positively influence an individual's readiness for change may lead to their acceptance and increase the likelihood of it being effective. Readiness to change, often associated with planned change, fits with its first stage of

change, similar to Lewin's (1948) unfreezing, where organisational members become prepared for it.

The change readiness model produced by Armenakis et al. (1993, 1999, 2002) centres on five key change-recipient beliefs that a change message should contain. When these are communicated effectively, through influencing strategies such as active participation, persuasive communication, provision of information, human resources practices and the diffusion of information, the motivation needed to support a planned change is created. The first belief refers to whether employees believe there is a need to change – is there a discrepancy between the current states of the organisation and where it needs to be. The second belief centres on efficacy – does the individual have confidence in their ability to successfully bring about the change. The next is how appropriate is the change – the individuals' belief that management have analysed the situation correctly and the change solution is correct. The fourth stage, principal support, refers to the organisation providing the resources and commitment to see the change through. Finally, the fifth central belief of their model is the valence of the change to the individual. If these beliefs are addressed adequately by pro-active change managers it is likely that change recipients will be ready for the change (Armenakis & Harris, 2009).

One criticism of Armenakis et al's. (1993, 1999, 2002) readiness to change model is that it puts more emphasis on cognitive beliefs than affective responses to change. This was rectified by Holt, Armenakis, Feild, & Harris (2007), who expanded the definition to include an emotional component, such as hope or fear, to a change event. Rafferty, Jimmieson, & Armenakis (2013) further defined individual readiness model as that which is composed of two parts – beliefs about whether the change is needed, whether that person has the capacity to effect the change, and their evaluation of whether the change has a positive outcome on their role, and their "current and future-oriented positive affective emotional response" to the change (p. 116). Further to this, Holt and Vardarman (2013) associated readiness to change with three areas that included the characteristics of the change recipients, the context of the change, and the level of change.

The previous section outlined four key attitudes towards change found in the change literature (Choi, 2011, Bouckennooghe, 2010). The next section examines another attitude, openness to change, which unlike the others, exists as a general and specific attitude to a change initiative. This attitude will be examined through two types of pre-change antecedents, individual characteristics of the change recipient, and contextual variables, which, according to Oreg et al's. (2011) model, impact on change recipient attitudes towards change.

2.3 Openness to Change

Openness to change is a 'multifaceted' construct that has both personality and contextual dimensions (Oreg, 2006). As an attitudinal change construct it has been conceptualised as the inverse of resistance to change (Chawla & Kelloway, 2004), and has its own characteristics, which are distinct from other change attitudes (Choi, 2011). Openness to change sits on the positive end of the attitudinal spectrum along readiness to change, and commitment to change. Armenakis, et al. (1993) hold that openness to change is a precondition of readiness to change.

The level of openness to change can show how adaptable an employee is to the constantly changing market place (Armenakis & Bedian, 1999). In fact, some have gone so far as to say openness to change is fundamental to developing an organisational culture that is conducive to change (Erturk, 2008). Global research conducted by the Human Resource Institute in 2005 found that openness to change is a key leadership characteristic needed for the successful execution of strategy (American Management Association, 2005). Therefore, understanding more about it and its antecedents will contribute to understanding the factors that go towards making change more successful.

2.3.1 Openness to change defined

Openness to change as an attitudinal construct was conceptualised by Miller, Grau, and Johnson (1994), as having two parts: "support for a change", a cognitive component, and "positive affect about the consequences of a change"

(p. 60), an affective component. Positive affect is the feeling an employee has that the outcome of the change will be favourable. The definition of openness to change was further operationalised by Wanberg and Banas (2000) as a two factor structure; “willingness to accommodate or accept the change” and “positive view of the change” (p. 135). Susskind, Miller and Johnson (1998) viewed openness to change as the willingness to participate, or co-operate, with a change. In accordance with the tri-dimensional view of attitudes, Oreg et al. (2011) found the openness to change construct to have affective, cognitive, and behavioural components.

Change receptivity is another way of looking at openness to change. It encompasses the range of positive and negative emotions that employees feel in response to change (Pettigrew, 2001; Frahm & Brown, 2007). Change responses associated with receptivity can range from negative emotions such as fear, frustration and change contempt; to neutral emotions such as passive acceptance and change readiness to positive responses such as excitement and change commitment (Frahm & Brown, 2007).

2.3.2 Antecedents to openness to change – contextual factors

For organisational change, antecedents to openness to change are the factors that influence an employee’s judgement of whether a change should be accepted, ignored or resisted (Miller et al., 1994). Antecedents to openness to change include the quality of communication, and the information environment (Wanberg & Banas, 2000), participation in the change process (Chawla & Kelloway, 2004), and trust in leaders (Devos et al., 2007).

2.3.2.1 Communication

The quality of communication about the change is directly related to openness to change (Chawla & Kelloway, 2004; Wanberg & Banas, 2000; Miller, Johnson & Grau, 1994). It has also been found to be related indirectly through procedural justice. The information environment around change, and whether the employee has adequate information about the reasons for change, the impact on their jobs, and the way forward, all helps to reduce uncertainty and

increase management's credibility regarding the change (Miller & Monge, 1985). Further to this, individuals may be unwilling to change because they are, for example, uncertain about the impact of change on the organisation or on themselves, or the information they receive is contradictory or unclear (Bordia, Hobman, Jones, Gallois, & Callan, 2004). Communication then, as a contextual antecedent has been found to impact on openness to change (Wanberg & Banas, 2000; Miller et al, 1994, Chawla & Kelloway, 2004).

A study by Axtell, Wall, Stride, Pepper, Clegg, Gardner & Bolden (2002) found that, employees who have greater exposure to a change are more open to it. The more useful the information about the change (Wanberg & Banas, 2000) and the more experience they have with change, the less uncertainty (Schweiger & DeNisi, 1991) and less psychological strain (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004). Furthermore, in terms of the psychological contract employees hold with their organisation, the better the provision of credible and sufficient communication during a change process, the less likely they will feel their contract is breached and the more positive their response will be to the organisational change (Rousseau & Tijoriwala, 1999)

2.3.2.2 Participation

Participation is another contextual factor that influences an employee's acceptance of change. A number of studies have found a relationship between openness to change and participation. Wanberg and Banas (2000) found that employees who had a higher level of involvement in a change process were more likely to view the changes as beneficial to them. Chawla and Kelloway (2004) found that participation, while not directly related to openness to change, was indirectly related through procedural justice – that is how fair and inclusive the process was and how much information was shared. Lines (2004) found that participation is positively related to successful change and negatively related to resistance to change.

Participation can be defined in a number of ways. Wilson and Peel (1991) define it as employees being able to influence change processes and outcomes through the application of their power and knowledge. Lines (2004) used a

different definition that breaks down participation into two forms: participation that is consultative and that which actually gives employees the right to veto management decisions. Early employee involvement in the change process at the planning and implementation stage is seen to help employees understand the rationale for the changes and gives them an opportunity to provide feedback (McKay, Kuntz, & Naswall, 2013). Participation is also seen as a way to reduce resistance to proposed organisational change (Lines, 2004). Another form of employee involvement can be termed employee voice. Voice relates to the opportunity employees have to be able to influence organisational decisions through having their ideas and opinions listened to and considered (Farndale, Van Ruiten, Kelliher, & Hope-Hailey, 2011). Kotter (2012) also finds that for employees to accept change, they need to feel listened to and their advice heeded. In fact, it seems that employees who feel they are involved in the planning and implementing of change are more likely to support and accept it (Jimmieson, Peach, & White, 2008).

Chawla and Kelloway (2004) make the distinction between participation that gives control over the decision and that which allows the employee to air their opinions about a change which they call process-control participation. In their research they tested a model of change management strategies and they found a direct relationship between participation and trust but only an indirect relationship between participation and openness to change mediated by procedural justice. If employees feel that the change process is not fair and their participation in a change process is cursory and not authentic, they may decide that management does not value their contribution. Therefore, they may be less willing to accept the change.

2.3.2.3 *Trust*

Trust has long been identified as a key factor in organisational effectiveness (Kotter, 1995; Kotter, 2012; Kramer, 1999). It is the major force for gaining the cooperation of others (Nyhan, 2000). Definitions of trust in an organisational sense include the “willingness to act on the basis of words, actions, and decisions of [another] under conditions of uncertainty or risk” (Albrecht &

Travaglione, 2003, p. 78). In terms of leader-member exchange theory, trust can be defined as an individual's "beliefs regarding the likelihood that another's future actions will be favourable, or at least not detrimental to one's interests" (Morrison & Robinson, 1997, p. 238).

Trust in management forms part of the internal context that influences attitudes to change. It has been found to influence an employee's readiness to change, acceptance of change and resistance to change and is the only variable that impacts all three components of change attitudes - affective, cognitive, and behavioural (Oreg, 2006).

Erturk's (2008) trust based model for change distinguishes between trust in higher management and trust in the supervisor. Trust in management is linked to the goodwill employees have of their leaders and how they perceive managers will act in an honest, sincere and unbiased way towards them in a time of change (Devos & Beulens, 2003). Their experimental study of 828 people in a controlled experiment about change found that high trust in management revealed that employees can have positive attitudes to change even if the changes impact them severely, if they were involved in the change and if they perceive management to be trustworthy. The way management justifies change through the use of ideological social accounts and how credible they seem to employees also accounts for the level of trust they have in management (Tucker, Yeow, & Tendayi, 2013). Procedural and interactional justice are important builders of trust in management.

Trust is an important factor in the development of the interpersonal relationship between superior and a subordinate. It has been conceptualised as a positive force for change as the credibility, and trustworthiness, of the superior, and the belief they will act in the best interests of the employee, can determine how employees will react in times of change (Nyhan, 2000). The essence of organisational change is behavioural change, which can be affected by the interactions with supervisors and trust is one indication of the quality of relationship between the supervisor and the employee, and can lead to employees supporting change and being more open to it (Erturk, 2008).

Antecedents of trust include perceived organisational support, procedural justice and the communication climate (Albrecht & Travaglione, 2003).

2.3.2 Openness to change as an individual difference

The theory of dispositional resistance has, at its core, the belief that an individual is predisposed to either accept or resist change depending on their personality. A resistance to change instrument developed by Oreg (2006) measured the personality factors of a number of individuals undergoing change in different situations and in different countries. Findings showed that those who are highly disposed to resist change are more likely to have the following four personality factors: routine seeking, emotional reaction to imposed change, cognitive rigidity, and short-term focus (Oreg, 2003, 2006).

Personal characteristics have also been shown to affect how individuals react to new experiences such as a change situation (McCartt & Rohrbaugh, 1995). Personality factors such as extraversion, openness to experience, agreeableness, and conscientiousness were found to be positively related to attitudes towards organisational change (Vakola, Tsaousis, & Nikolaou, 2004). Robins (2005) frames openness as a personality trait – a person's ability to be open to new experiences and be flexible when dealing with new situations.

Organisational change is stressful by its very nature. Emotions experienced include such things as anxiety due to job insecurity, uncertainty about the future or fear due to whether they can cope with the change (Van den Heuval et al., 2015). However, others may not experience any negative emotions but embrace change as an opportunity for personal development. Wanberg and Banas (2000) examined three individual differences variables that were related to being able to cope better with stressful situations and related them to change. They found that high levels of self-esteem, perceived locus of control, and optimism – operationalised together as resilience - predicted an employee's willingness to accept a workplace change.

2.4. Internal Organisational Context

The internal context can be thought of as the environment within which the organisation operates. It is very broad in nature and consists of many factors including organisational structures, resources, and functions, as well as behaviour, and culture (Capon, 2004). Johns (2006) sees the context as the characteristics embedded in the organisation that have an effect on the individual behaviour or “the situational opportunities and constraints” (p. 386) that affect how people behave, why they behave in this manner and the relationship between certain organisational variables and behaviour.

Some factors that are included in the internal context of a change are having a supportive environment and a trusting relationship with management (Wanberg & Banas, 2000; Eby et al, 2000; Coyle-Shapiro & Morrow, 2003), organisational culture and climate (Jones, Jimmieson & Griffiths, 2005; Schnieder, Brief, & Guzzo, 1996) and the climate within which communication occurs.

2.4.1 Organisational climate

The organisational climate is part of the internal context of the organisation. It has been found to be a separate construct from its cousin, organisation culture, and has been defined as the sum of all the meanings shared by individuals as they experience organisational life and which provides a framework from which they can operate (Ehrhart, Schneider, & Macey, 2014). Climate can also be defined as the way employees perceive they are treated by management (Boudrias, Brunet, Morin, Savoie, Plunier, & Cacciatores, 2010). Organisational culture can be seen as the “way things are done around here” (Drennan, 1992, p. 3) and has been defined as the basic assumptions, beliefs and norms shared by members (Schien, 1992, p. 6), codified into a pattern of recipes for handling situations over time so they become routine and taken for granted schemas. Culture impacts organisational climate so when culture changes so does climate (Schnieder, et al., 1996). Likert (1967) established that organisational climate impacts organisational performance. Jones et al. (2005) linked organisational culture and climate to the formation of attitudes to change.

Climate can pertain to the general organisational climate, or certain parts of it, as individuals cognitively appraise certain organisational targets (Boudrias et al., 2010). Zohar and Hoffman (2012) found that approaches to organisational climate study can be either holistic – assessing all dimensions of the organisation's environment – or it can focus on just one aspect, for instance, quality, innovation, or safety. Employee perceptions of organisational climate can affect the way they feel about the organisation, and judge their employer, with consequences for their commitment to the organisation, satisfaction for their job, intentions to leave, and level of absenteeism (Martin, Jones, & Callan, 2005).

2.4.2 Supportive climate

The nature of the work environment is a factor that influences an individual's attitudes towards change (Oreg et al., 2011). When employees perceive their environment to be supportive they are more likely to cooperate. A supportive environment positively affects openness to change, and thereby lowers resistance to change (Devos et al, 2008; Wanberg & Banas, 2000). Vakola and Nicolaou (2005) found that a lack of a socially supportive environment was the strongest predictor of negative attitudes towards change.

Social exchange theory supposes that when one party behaves in a favourable manner towards another, that behaviour is reciprocated, leading to positive outcomes for both (Blau, 1964). Therefore, when the organisation treats its employees well, employees will likely feel obliged to return the favour by exhibiting pro-organisational behaviours such as commitment to the organisation, improved performance, organisational citizenship, and reduced absenteeism (Meyer & Allen, 1997).

Organisational support theory claims that employees develop views on how much an organisation values them and cares for their wellbeing (Eisenberger, Huntington, Hutchinson, & Sowa, 1986). Employees attribute the actions of organisational agents to the organisation itself rather than the individual person. Therefore, favourable treatment, and its reverse, by agents of the organisation

are an indication to the employee of how well the organisation cares for them and values them.

Two theories that are related to the theory of organisational support are perceived organisational support (POS), (Eisenberger et al, 1986) and leader-member exchange (LMX), (Liden, Sparrow, & Wayne, 1997). According to Wayne, Shore, Bommer and Tetrick (2002), the LMX emphasis is on the quality of the relationship between employee and supervisor, whereas POS focuses on the exchange between the organisation and employee. They found that both these constructs influence employee attitudes and behaviours.

In a review of the literature on organisational support, three antecedents that influenced perceptions of a supportive organisation were procedural justice, supervisor support and recognition of employee contributions to the organisation (Eisenberger & Rhoades, 2002). The essence of procedural justice is fairness in the treatment of employees. It can be structural such as formal policies and procedures, and the way decisions are implemented by, for instance, giving adequate notice of change, providing employees with accurate and timely information and listening to the employee voice. Interactional or social aspects of procedural justice focuses on the quality of interpersonal relationships – the way employees are treated by the organisation influences their perception of how supportive it is (Eisenberger & Rhoades, 2002). Farndale et al. (2011) found there is a direct relationship between employee voice and organisational commitment mediated by the employee–line manager relationship and trust in senior management.

The quality of support given to the employee by the supervisor is a key part of the leader-member exchange theory and affects how supportive they perceive the organisation to be (Wayne et al., 2002, Scandura, 1999). An employee-supervisor relationship develops over time as they interact and learn what to expect from each other. High quality relationships are characterised by “loyalty, emotional support, mutual trust and liking” (Furst & Cable, 2008, p. 454). According to Furst and Cable, using attribution theory, how an employee reacts to managerial influence tactics, such as persuasion or consultation depends not

only on the strategy used but on the quality of their relationship with their supervisor. The very same tactic may result in employees either resisting change, or accepting it, depending on how they feel and think about their manager. The implication here is that it is the relationship that counts in a change situation.

In Xerri, Nelson, and Brunetto's (2015) study of 225 Australian assets managers and engineers, workplace relationships, the perceived organisational support and the leader-member exchange were found to have an impact on attitudes towards change. It was found that when employees perceive they have support from their organisation they are more likely to have an enhanced sense of wellbeing and a higher emotional attachment to the organisation. They hypothesised that if the relationship between the supervisor and employee is deficient, such as lacking in trust or respect, employees will be more likely to resist change. Xerri et al. (2015) suggested, among other things, that supervisors should be given the tools to engage with their employees more effectively such as "team leadership and communication skills; e.g. conducting meetings, giving feedback, listening and responding" (p.28).

2.4.3 Communication climate

The communication climate is an aspect of the organisational climate and can be understood as the atmosphere within which communication happens (Putnam & Cheney, 1985). Dwyer (2009) conceptualises the communication climate as made up of the way employees feel about each other as they interact. Dimensions of the communication climate include how supportive an organisation is of its employees, the level of participative decision-making, and trust in management and the organisation (Redding, 1974). Others have added dimensions such as the quality of and quantity of communication (Dennis, 1974), easy access to others in the organisation, information sharing, and constructive interactions between workers (Larsen & Folgero, 1993). Attributes of a supportive climate can include openness and candour, trust, confidence, credibility and involvement (Redding, 1974; Boudrais et al., 2010). In effect, the

communication climate is based on the nature of and quality of interpersonal relationships that occur within an organisation.

Garvin-Doxas and Barker (2004) state that the communication climate in a learning environment is “negotiated, maintained, and changed” (p.2) through the full range of communication behaviours including “verbal, non-verbal, and para-verbal messages” (p.2). Over time these behaviours in a particular setting become embedded and develop in the organisation into the communication climate. These patterned behaviours range between a supportive climate on one end and defensive at the other (Gibb, 1961). Gibb attributes certain behaviours to each type of climate. Supportive climates are characterised by non-judgemental communication behaviours, a problem solving approach, authentic and empathic responses, trust, respect and collaboration and openness to another’s point of view. Defensive climates described by Gibb (1961) include a communication environment typified by judgemental, controlling and hierarchical behaviours.

Gibb’s theory was developed by observing group training sessions in a variety of organisational settings over a number of years. The communication climate concept is useful in order to understand the climate employees are interacting in. For instance, do employees feel comfortable asking questions of their supervisors or co-workers, are their opinions valued, do they feel listened to, is information shared, do they feel trusted and respected? Baker (1980) shows that defensiveness is a block to the listener receiving the speaker’s message and can be detrimental to the ongoing communicative relationship between individuals. He argues that empathy, authenticity and equality of treatment can reduce defensive behaviour in the listener.

2.4.4 Change communication

Schein (1982, as cited in Frahm & Brown, 2007) says that the communication climate is a symbol of the organisational culture. When the communication climate is characterised by the free exchange of information and processing, managers are likely to follow suit. Much research into communication and organisational change has been around communication as the instrument

organisational leaders use to garner employee compliance, commitment and support of the proposed change initiative (Russ, 2008; Goodman & Truss, 2004). Communication as a tool is used to transmit meanings, by informing change recipients about the different aspects of change, be it strategic, structural or job related; to create understanding and encourage them to participate in the change process (Caldwell, 1993). It is something top management does to those lower down the organisational hierarchy to change their attitudes and behaviour (van Vuuren & Elving, 2008; Boonstra, 2004) to create readiness for change (Armenakis et al, 1993).

Added into the Armenakis et al. (1993) model are three strategies that can be used to influence the way employees think, feel and behave towards change. These are persuasive communication – written and face to face; participation – where employees can see how the changes work for themselves, learn about the changes from observing others or ask for their views; and the third is the management of the information both from within the company and outside. Communication in this way aims to justify or rationalise change initiatives by using communication strategies in a systematic way to disseminate information with the aim of reducing resistance to it and gaining acceptance (Simoes & Esposito, 2012).

Goodman and Truss (2004) identified that communication strategies for change differ widely between organisations and even with adequate strategies in place, perceptions can still remain that the information is inadequate. Their solution was to provide change managers with a change communication model aimed, among other things, to get individual buy-in, commitment to change, reduce resistance to change, and uncertainty. In this model the content of the message, the media used, the channels, and the approach, all need to be taken to consideration, along with the context for change, and the employee responses.

The quality of the change messages delivered by those who are implementing the change is important in the transmission model. It is hypothesized that the quality of information is negatively related to uncertainty and resistance to

change (Bordia et al, 2004). Participation in the decision making aspects of change are also considered important to reduce uncertainty about change and increase feelings of control over work. Bordia's study looked at the different types of uncertainty - strategic, structural and job related and their relationship to the quality of communication, measured by such things as timeliness, accuracy and usefulness. Participation in decision-making included measuring whether employees perceived their opinions to matter at work. Results showed the better the quality of management communication, the more certain employees were about the strategic reasons for change and the direction the company is going. The quality of communication did not affect how employees felt about the structural and job-related issues of the change. However, participation in decision-making was negatively related to the reduction of structural and job-related uncertainty, so, for instance the more team meetings and the more employees are listened to the less uncertainty they feel about the change and the more they may embrace it (Bordia et al., 2004).

The idea that communication can be used as a tool in the change process as outlined in the first approach to change communication contrasts with the second approach that sees communication not as the transmission of meanings but as a joint construction of meanings that takes place in the interactions of individuals (Johansson & Heide, 2008; Simoes & Eposito, 2012). This idea forms part of the theory of the communicative constitution of organisations (Schoeneborn, Blaschke, Cooren, McPhee, Seidl, & Taylor, 2014) and is a relatively new field for organisational change communication studies. The central idea is that organisations are "invoked and maintained through communicative practices" (Schoeneborn, 2011, p.12). Organisations are seen not as a group of people connected by actual channels of communication but as a series of conversations (Schoeneborn, 2011, citing Taylor 1993).

Ford and Ford (1995) conceptualised that communication is where change happens. Change is seen as a communicative event and individuals' understanding of reality of a change event is formed and reformed through their interactions with others via dialogue and conversation. In this postmodern view of organisational change, communicative acts such as speech actually change

social reality rather than just report on something already existing (Johansson & Heide, 2008). In a planned change, for instance, individuals will talk about it to their co-workers, their families, their line managers and so on to try and make sense of what it means to them, their work unit and the organisation as a whole. How they construct their own social reality about the change will depend on a number of complex things including their previous experiences, culture, background, and so on. No two people will have exactly the same view of a change initiative – as each of them develops their own meanings and sense of reality and communication happens as they exchange it with others to get new meanings. Communication seen in this way is how individuals make sense of change initiatives and what it means for them and how they will respond.

2.4.5 Interpersonal communication

The quality of the relationship between employees and their managers and with their co-workers is essential for the development of trust and mutual understanding and ensuring the efficiency and effectiveness of business operations (Xerri et al., 2015). The interactions that occur every day in an organisation between individuals, such as meetings with staff, performance reviews, and informal chats involve the exchange of meaning through verbal and non-verbal means: words, gestures, tonal and facial expression and body posture. How this is delivered affects the quality of the relationship. In a change situation, Ford et al. (2008) found that it is the quality of the relationship between change agents and change recipients, formed over time, which determines the level of openness to change or resistance to it. Billikopf (2009) found that the quality of interpersonal relations at work contributes not just to the maintenance of trust, and positive affect towards the organisation, but also to worker productivity. Employee satisfaction with the relationships they have with workmates and supervisors has also been found to be related to positive attitudes to change (Giauque, 2015).

The communicative style can also affect the quality of the relationship between employees and their managers. Sethi and Seth (2009) provided a list of possible barriers to quality organisational interpersonal communication. These

include whether the communication was top down, one-way, directive, controlling or rule driven versus communicative styles that improve the quality of the relationship such as communication that is two-way, receptive to the ideas of others, egalitarian and dynamic. Techniques to overcome barriers to interpersonal communication include clarity of messages, using feedback and to “listen ardently” (Sethi & Seth, 2009, p. 37).

One of the perceived roles of the middle manager in an organisational change situation is to communicate to their subordinates what is happening about the change. Frahm and Brown (2007) found, in a study of the first 100 days of change in a public sector organisation, that the communication competence of the middle manager in conveying information about the change was crucial to the success of the change. Furthermore, in the same study the ability for employees to provide feedback and for communication to flow both up and down the line was found to be important as it reduced uncertainty about the change as also the opportunity for informal, uninformed discussion and the rumor mill thrive in an information vacuum.

The effectiveness of the interpersonal communications skills of middle managers/supervisors is key to building trust between them and their employees and influences employees’ commitment to the organisation (Bambacas & Patrick, 2008). This includes skills such as communicating clearly and regularly, listening actively and leading in a way that engenders co-operation and commitment. Furthermore, the quality of communication, the ability to let employees have a voice and the strength of the relationship between employees and their managers influences how accepting and supportive employees were of the change (Frahm & Brown, 2007).

Studies into the effects of communication climate on employee attitudes have found that the more positive the communication climate, the higher employee commitment to the organisation (Guzley, 1992). Committed employees are more likely to believe in the organisation and what it is aiming to achieve and will put extra effort into working to achieve those goals (Meyer & Hercosvitch, 1993). Van den Hooff and De Ridder (2004) showed that a positive communication

climate is linked to successful knowledge sharing and affective commitment within the organisation. Eby, et al. (2000), drawing on the work of Tetenbaum and Schneider and Bowen, hypothesise that for change to be successful organisations need to create a climate favourable to the change. According to them, fostering a climate that includes open communication, supportive interactions and where employees trust one another and are able to participate in change decision-making will encourage them to be more willing and open to change.

In summary, there is a large amount of research to show that a supportive communication climate in a time of change provides an environment where information flows more easily, where dialogue is supported, enabling employees to feel that they can freely exchange information and create new meanings with each other.

2.5. Listening in Organisations

Listening has long been seen as an essential interpersonal communication skill needed for organisational success (Lewis & Reinsch, 1988). It has been ranked in the top ten important skills for business (Lewis & Goby 2000) and often mentioned as a key management attribute in popular management literature (Flynn, Valikoski, & Grau, 2008). Effective listening has been associated with better customer relationships (Drollinger, Comer, & Warrington, 2006), improved productivity and increased commitment and identification to the organisation (Reed, Goolsby, & Johnston, 2014) and improved communication (Flynn et al, 2008; Brownell, 2004; Bodie & Fitch-Hauser, 2010). Helms and Haynes (1992) link a good listening environment to the creation of innovative ideas and increased efficiency that promotes organisational growth and profitability.

Despite the favourable results that flow from listening, scholars generally agree that listening is an under-researched field (Bodie, 2011). Brownell (2010) argues that much of the study of communication focuses on the speaker and the creation of the message rather than the reception of the message. She maintains that for a message to be effective, so that meanings can be shared, speakers must first be competent listeners and understand the recipient's point

of view and design the message accordingly. Bodie, Worthington, Imhoff, and Cooper (2008) argue that much of the research into listening has focused in the area of listening comprehension as the way to gain knowledge, such as in an academic setting, and that more research into listening in the interpersonal context is needed. In their model of unified listening, outcomes of listening include not only the gaining of information and knowledge but also the building of interpersonal relationships and eliciting emotional responses. Given the paucity of research into listening in an organisational environment (Flynn et al, 2008) it would be useful to extend the understanding of listening in the business context and, given that change is the only constant in the current business environment (Burnes 2014), understanding more about how listening may influence organisational change can only be helpful.

2.5.1 Understanding listening

The study of listening has evolved over the last 60 years from understanding listening as a linear communication transaction whereby the role of the listener was simply to decode the message to a more complex understanding of listening which is multi-dimensional (Bostrum 2011). Viewing humans as complex information processors (Proctor & Vu, 2012) where the process of listening takes place in three stages - the selection, interpretation, and retention of information (Mayer, 2003) is a very popular approach to the study of listening. The International Association of Listening takes this further with their definition of listening as the “process of receiving, constructing meaning from and responding to spoken and/or nonverbal messages” (ILA, 2007).

Imhof and Janusik’s (2006, p. 81) model of listening (see Figure 2.7) puts into a framework the different components of listening that have been researched over the years. These include the antecedents of listening – personal characteristics of the listener, as well as the listening context, both of which influence the listening process. The listening process happens in stages which include “selection/attention, decoding/interpretation, working (short term) memory, long term/schematic memory and response preparation” (Bodie et al., 2008, p. 113). The model also recognises that each listening interaction has a purpose. It can

be, for instance, to gain knowledge, to form or build relationships or to listen with affect such as empathetic listening. Bostrum (2011) points out that Bodie et al.'s model which conceptualises the above outcomes show that listening is key to interpersonal communication. Bostrum offers another definition of listening which takes into account listening as a skill, a schema and a memory. He defines listening as the "acquisition, processing and retention of information in the interpersonal context" (Bostrum, 2011, p. 23).

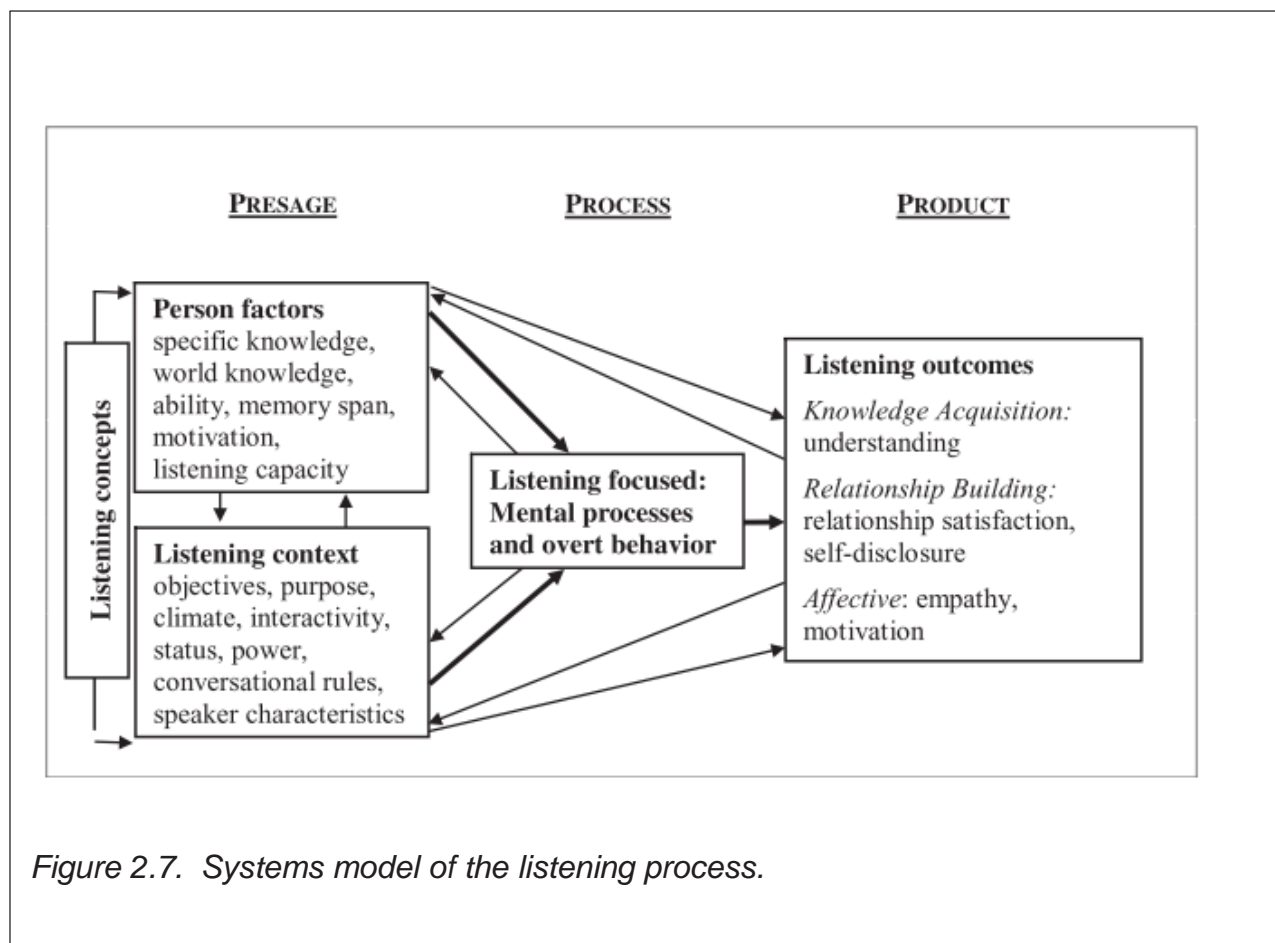


Figure 2.7. Systems model of the listening process.

2.5.2 Listening-centred communication

Brownell (2010) urges a re-think on communication perspectives, one that focuses on the reception of the message rather than its creation. Her listening-centred model of communication is based on the premise that it is the listener, bringing into play their perceptual filters, schema, culture, and so on, that defines the message. Within the listening phase of communication, which Brownell says is ongoing and continuous, meaning is created and shared.

Through the listening process, individuals learn to behave appropriately in context, to decide what messages to “attend [to], understand, interpret and evaluate” (p.143) as they respond to verbal and non-verbal cues. The better the listener the more likely they are to understand the listening process and the intended meaning of the speaker (Brownell, 2010). In an organisational change sense therefore, a focus on the listening process, and an understanding of how individuals receive and process information may give an insight to the successful implementation of change plans.

2.5.3 The listening climate in organisations

The listening climate, or environment as it is often called, is considered by some as a dimension of an organisation’s communication climate (Johnston, Reed, & Lawrence, 2011; Flynn et al., 2008; Brownell, 1994). It is defined by characteristics that are akin to a supportive organisation and that persist over time. A responsive environment is where the open exchange of ideas and opinions are encouraged and where employees perceive that their contribution is valued and that they are cared for and respected by the organisation (Brownell, 1994; Reed, Goolsby, & Johnston, 2014). The climate is seen by Gilchrist and van Hoeven (1994) as the value employees put on how responsive an organisation is to employees’ ideas and feedback. The climate is formed from the perceptions of employees of the listening behaviours and attributes an organisation exhibits and these influence employee attitudes and behaviours (Brownell, 1994). A positive listening environment leads to improved performance amongst work groups (Johnstone, Reed, Lawrence & Onken, 2007). It has also been associated with the availability of organisational information, employee identification and organisational commitment (Reed et al., 2014).

2.5.4 Group listening climate

Organisations, more and more, organise their work through groups or teams (Reed et al., 2014; Mickan & Rodger, 2000). Effective listening has been shown to improve team performance and help them achieve their goals (Brunner, 2008). Stratton (2012) studied how employees makes sense of change and

found that when individuals exhibited good listening behaviours that genuinely listened to the speaker and understood and acknowledged them, it gave them a feeling of being heard. This affirming action produced affective responses such as “feeling valued”, “validated”, “trusting,” and “connected” (p. 38).

Johnston et al. (2007), in a study of how communication affects financial performance in an organisation, showed that a positive listening climate improved the way a group worked together, which in turn had an impact on performance. This study used a communication scale, the Communication Satisfaction Measure, which was broken down further into Group Listening Effectiveness and Group Expression Effectiveness scales. Initial findings seem to suggest a link between the efficacy of a group and its listening effectiveness. Johnston et al. (2007) refer to Bandura’s (1997) definition of efficacy as a group’s belief that they can achieve the outcomes set them.

2.6 Listening Environment and Openness to Change: Summary and Current Research

One of the biggest challenges facing organisations today is to how to manage change successfully (Burnes, 2014). Employee attitudes to change are crucial to the success of a change initiative (Keller & Price, 2011). This review has comprehensively examined the organisational change literature, focusing on change at the individual level, and how the context, content and processes of change and the personal characteristics of the individuals affect their attitude to change. The review examined the different attitudinal constructs identified in the change literature which included resistance to change and cynicism to change which have negative connotations, to readiness to change, commitment to change, and openness to change, which are positive attitudes. The concept of ambivalence was also acknowledged where the reaction to a change situation may be both positive and negative.

The attitudinal construct, openness to change, was identified as one of the lesser studied of the change attitudes (Choi, 2011, Bouckennooghe, 2010). In a number of empirical studies, it has been shown to be influenced by both the

internal context, the change process and the personal characteristics of the individual. These include among other things trust in management, trust in the supervisor, participation in the change process, the quality of change communication, and the information environment. It is suggested that openness to change, unlike some of the other attitudinal constructs, is a general attitude and so not targeted to a specific change situation which some of the other attitudes are, such as readiness to change.

The internal context of change includes such factors as the organisational climate and culture, organisational support, the communication climate and the quality of the interpersonal relationships between co-workers and with the supervisor. The listening environment as part of the communication climate is also a factor in the internal context.

Research into the listening climate, as a sub-scale of the communication climate, has been limited especially relating to how it affects employee attitudes to organisational change. Therefore, this study proposes that there is a gap in the literature regarding the connection between an organisation's listening environment and how it may affect the openness and willingness of employees to accept organisational change. The literature has shown that the relationship between a supervisor and employee is a factor in creating a supportive, trusting environment within which change can take place. Are organisational members more open to change and willing to support change because of the confidence a positive listening climate created by their supervisor gives them? Does this enable them to work better together to achieve organisational goals? Furthermore, what about the listening environment created between team members? Does this influence how open individuals are to change?

Amid the plethora of research into organisational change, very little has looked at listening on its own. Therefore, this study proposes to explore the connection between these constructs: an organisation's listening environment and how it may affect the openness and willingness of employees to accept an organisational change. My research will examine aspects of the listening environment in a workplace, dividing this up into the listening environment

created by the supervisor and that which develops between co-workers. As a matter of course, demographic variables will also be captured and investigated as to how they affect both openness to change and the listening environment.

The first research goal of this study is to explore the relationship between the attitudinal construct, openness to change, and the organisation's listening environment. This has been operationalised into two research questions.

Research question 1: Is there a relationship between openness to change and the team listening environment?

Research question 2: Is there a relationship between openness to change and the supervisor listening environment?

The next goal is to understand how the listening environment relating to openness to change is affected by individual demographics collected from recipients as part of our study: position, tenure, age and gender. Therefore, the following questions lend themselves to examination:

Research question 3(a). Does employee position influence the relationship between openness to change and the team listening environment?

Research question 3(b). Does employee position influence the relationship between openness to change and the supervisor listening environment?

Research question 4(a). Does employee tenure influence the relationship between openness to change and the team listening environment?

Research question 4(b). Does employee tenure influence the relationship between openness to change and the supervisor listening environment?

Research question 5(a). Does employee age influence the relationship between openness to change and the team listening environment?

Research question 5(b). Does employee age influence the relationship between openness to change and the supervisor listening environment?

Research question 6(a). Does employee gender influence the relationship between openness to change and the team listening environment?

Research question 6(b). Does employee gender influence the relationship between openness to change and the supervisor listening environment?

The third goal is to understand the construct, openness to change more deeply by examining the impact of the demographic variables on this dependent variable. Therefore, the following questions are asked.

Research question 7: Does employee position influence their openness to change?

Research question 8: Does employee tenure influence their openness to change?

Research question 9: Does employee age influence their openness to change?

Research question 10: Does employee gender influence their openness to change?

The next chapter sets out how these research questions will be answered. This includes the research method used, where the research will take place, the selection of the participants, and how the data will be gathered and analysed.

Chapter Three: Method

3.0 Introduction

The preceding chapter reviewed the literature pertaining to organisational change and in particular, attitudes to change which set the context for this study. Organisational change is defined as modifying or transforming structures, people, or processes, so the organisation can more effectively meet the needs of its stakeholders, and survive in the marketplace (Burnes, 2014). Specific attention was paid to the attitudinal construct, openness to change, and the antecedents that influence it. This included among other things the communication climate of which the organisation's listening environment is part. The listening environment has never been studied as an antecedent to openness to change and so to fill a gap in the literature this was made an area of research and broken down into the listening environment created by the supervisor and that which exists between team members. The overall objective of the research was to further the understanding of how the organisational listening environment is related to individuals' openness to change.

This current chapter outlines the research setting, the characteristics of the sample, and the design of the survey including an analysis of the survey instruments used to measure the data. It then details the procedures used to gather data including the steps that needed to be taken to gain approval to conduct research in a government setting, the testing of the survey instrument, as well as a discussion of the statistical techniques used to analyse the data. Finally, the chapter ends with a discussion of the ethical considerations that were taken into account in the research process.

3.1 Research Methodology

The overall aim of this study was to examine the relationship of two different organisational listening environments: that which is created by work teams and the listening environment created by the supervisor, with an individual's openness to change in a situation of organisational change. Demographic

information was also gathered to determine any influence it may have on the relationship between these listening environments and an employee's openness to change.

To answer the research questions, it is suggested that a quantitative approach lends itself to this type of research as it utilises inferential statistical techniques to determine the relationship between variables. One recommended technique to collect such data is survey research which in social research seeks to ascertain "the beliefs, attitudes, values or behaviours of a population of interest from a sample of respondents selected from that population" (Query et al., 2009, p. 83). If certain statistical conditions are met, the findings of the sample can be generalised back to the population. Quantitative methods include experimental research and surveys, which can be applied in different forms such as face-to-face interviews, paper based questionnaires, and online surveys.

Babbie (1990) found that survey research was the most commonly used of the quantitative methods available for social research. A survey is an effective mechanism to directly capture individual perceptions, which in this case is how open the participants in the survey perceive themselves to be toward a specific organisational change and whether they feel listened to. Surveys can eliminate researcher bias and the social desirability effect where respondents answer questions in the way they think will please the researcher rather than what they truly think (Frey et al., 2000). With the advent of web based surveys and electronic mail, the administration of a survey has become an easy and cost-effective method of collecting data and one that can reach high numbers of people in a short amount of time (Bryman & Bell, 2007).

A self-report electronic survey was chosen as the tool for this research. It is minimally invasive in a research setting that has constraints such as a large public organisation. Furthermore, it can be answered in the respondents own time which can improve the response rate.

3.2 Research Setting

The population about whom this study wishes to make inferences are people who work for the public service and have experienced change. In New Zealand, the public service workforce amounts to 48,000 people (New Zealand States Services Commission, 2015). The population of interest is those people in the public service who have undergone change.

A website search was conducted in March 2015 of public service agencies in New Zealand who had experienced organisational change between 2013 and 2015 or were currently experiencing change. The search began with the organisation that oversees the public service in New Zealand, the States Services Commission. On their website they set out the agenda for improving public services in New Zealand.

New Zealand's State sector faces increasing expectations for Better Public Services in the context of prolonged financial constraints compounded by the global financial crisis. There is demand for improvements in addressing complex, long-term issues that affect New Zealanders.

The key to doing more with less lies in productivity, innovation, and increased agility to provide services. Agencies need to change, develop new business models, work more closely with others and harness new technologies in order to meet emerging challenges. (Retrieved from <http://www.ssc.govt.nz/better-public-services>, 10 January, 2016)

The mandate above pertained to all NZ government agencies. A search was made in March 2015 of the SSC website to identify agencies that had a change programme underway. Key words used were “better public services”, “performance improvement framework”, “public sector reform”, and “organisational change”. Under these headings a number of documents that set out the formal reviews for each ministry were available and these detailed the work each government department was doing under the Better Public Services umbrella. A review of the websites of these agencies detailed the organisational changes that were occurring or had occurred. Annual reports were also reviewed as they contained a wealth of information about the improvements that were happening in each agency in that year. The agency chosen for this research study was a large public service organisation that delivers a number of

different services to the public and which had been going through constant change in different areas of its operation. For the purposes of this study the organisation will be called Organisation X.

In line with Organisation X's mission to improve services and increase the functioning and efficiency of the different service lines, as well as keep costs under a certain level, it had been undergoing constant change over a number of years through a series of planned changes to its services and processes. This included both transformational changes to the way services were delivered, and which were mandated at a governance level, to changes initiated at an operational level to improve processes and systems.

The transformative changes included the introduction of new service lines, new tools and approaches, and the centralisation of systems and functions. Other changes were developmental such as the improvement of the functioning and efficiency of existing service line processes and the rationalisation of service branches. This organisation, therefore, was a good fit with this research which required participants who had recently undergone a change, or were currently undergoing a change.

3.3 Participants

The sample population was drawn from Organisation X, and were individuals who had experienced a planned organisational change, between 2013 and 2015, or were currently experiencing one.

At the time of the study, Organisation X had 3,300 staff based in a national office and 45 offices throughout the country. Three of their divisions fitted the change criteria amounting to 1856 employees and included employees at all levels of the organisation - senior management, managers, supervisors, and team members.

Selection was facilitated by the HR division which provided the names and email addresses of personnel they identified as having experienced change in that

time frame. This condition was the main criteria for inclusion in the survey criteria.

The sample size for this study was determined using Edwards, Thomas, Rosenfeld, and Booth-Kewley's table which shows the minimum sample size from a population which is needed to meet the 95% confidence level, the standard for science research (as cited in Frey et al., 2000). The population that this study wishes to infer results for are all people who have undergone change in the New Zealand public service. Therefore, this would be a subset of the 48,000 people who worked in the New Zealand public service as of September 2015. This is an underdetermined number as it cannot be obtained with any accuracy. The population for this study is the 1856 employees who met the criteria as set out above. According to the table mentioned above, this would mean the sample size would need to be 320 people.

To establish the power of these statistics, three things have to be determined: the sample size as above, the effect size and the confidence level set by the researcher (Pallant, 2013). Power statistics help to avoid Type One error where the null hypothesis is accepted when it should be rejected (and vice versa). Effect size statistics help determine the strength of the inferences made in this study and the degree to which the variables under scrutiny are associated (Frey et al., 2000; Tabachnick & Fidell, 2013).

Two tests that are commonly used to determine the effect size, which is the portion of the variance in one variable that can be explained by the other, is Cohen's *d* (1988) and partial eta squared. SPSS calculates these tests for both correlations and ANOVAs' and the guidelines are as follows in Figure 3.1 (cited in Pallant, 2013).

ANOVA

Size	Eta squared (% of variance explained)	Cohen's d (SD units)
Small	0.01 or 1%	0.2
Medium	0.06 or 6%	0.5
Large	0.138 or 13.8%	0.8

Correlations

Size	Spearman's Rho
Small	$r = .10$ to $.29$
Medium	$r = .30$ to $.49$
Large	$r = .50$ to 1.0

Figure 3.1 Cohen's Guidelines for determining the effect size of ANOVA's and Correlations

3.3.1 Characteristics of the sample

Of the 1856 people who were sent the online survey, 583 responded. Once data had been checked for errors and missing data, the total cases available for analysis was reduced to 485 which represents a 26.13% response rate. This response rate is much lower than Miller et al., (1994) who first tested the openness to change variable. Their response rate was 100%, as all 168 people who took part in the survey answered it. Erturk's (2008) study on trust and openness to change elicited a 35% response rate and Wanberg & Banas' (2000) survey response rates were 83%, 77%, and 98% respectively. However, none of these surveys were online. Further, Nulty (2008), points out that compared with an on average 56% response rate for paper based surveys, online surveys achieve a 33% on average response rate. Raw survey

responses for this study, before the data was cleaned and items deleted for missing data, actually returned a response rate of 31.5% which is close to the average rate of online surveys. Given the current research setting, and the requirements of Organisation X, an online survey was considered to be the optimum way of accessing employees at there, to ensure minimum disruption to a busy organisation.

Demographics gathered from the respondents in the sample include position, tenure, age, and gender (see Table 3.1). Information was also gathered regarding the respondent's experience with change - when the change occurred, and how it affected them.

Table 3.1. Tenure, Position, Age, and Gender of Respondents

Tenure (n = 484)		Frequency	Percent
Valid	Less than 6 months	7	1.4
	More than 6 months and up to 1 year	26	5.4
	More than 1 year and up to 2 years	56	11.5
	More than 2 years and up to 5 years	93	19.2
	More than 5 years and up to 10 years	118	24.3
	More than 10 years and up to 20 years	125	25.8
	More than 20 years	59	12.2
	Total	484	99.8
Missing	System	1	.2
Total		485	100.0
Position (n= 481)		Frequency	Percent
Valid	Team Member	373	76.9
	Team Leader / Supervisor	27	5.6
	Manager	74	15.3
	Senior Manager	7	1.4
	Total	481	99.2
Missing	System	4	.8
Total		485	100.0
Gender (n=485)		Frequency	Percent
Valid	Male	173	35.7
	Female	312	64.3
	Total	485	100.0

Age (n=485)		Frequency	Percent
Valid	18 to 24	29	6.0
	25 to 34	96	19.8
	35 to 44	95	19.6
	45 to 54	126	26.0
	55 to 64	113	23.3
	65 to 74	17	3.5
	Total	476	98.1
Total (with 9 missing)		485	100.0

3.3.1.1 Tenure

Employees in the sample had worked at Organisation X on average between 5 and 10 years ($M = 4.86$, $Md = 5.0$, $SD = 1.50$). The sample data was skewed reflecting that a majority of employees (62.3%) had worked in the organisation for over five years. The remaining 37.7% of employees in our sample had worked less than 5 years at Organisation X. Over one third of employees in the sample (38%) were of longstanding employment having been employed by Organisation X for more than ten years. Average tenure for the organisation as a whole is 7.4 years and the average tenure for the public service is 9.2 years. Therefore, the sample tenure is in the same bracket as the population it characterises.

3.3.1.2 Position

Most people who answered the survey identified as team members. It is assumed that the majority of employees at Organisation X are workers and so the sample result of 77.5% fits with this. However, the breakdown of employees by organizational position at Organisation X was unable to be obtained, so no conclusion can be formed as to whether the sample was representative of the organisational structure. Employees who identified themselves as either team leaders/supervisors or managers made up 20.9% of the sample. Senior Managers formed a very small percentage of the sample at 1.4%.

3.3.1.3 *Gender*

The breakdown of the sample data by gender indicates that 64.3% of respondents were female and 35.7 % male. The gender split was similar to females employed by Organisation X where 67.9% are female and 32.1% male. Compared to public sector employees, the sample has slightly higher female and slightly lower male participation where the breakdown is 60% female and 40% male.

3.3.1.4 *Age*

The majority of employees (49%) were aged between 45 and 64 years, with 45% under 45 years, and 17 people over 65. The average age of employees in the sample lies between 35 and 44 years. This aligns with the average age of employees at Organisation X which is 42.7 years and that of the public sector employees which is 44.6 years.

3.3.1.5 *Occurrence of Change*

Respondents were asked when they experienced change in the workplace. This was to ensure they fitted the research criterion of having experienced change recently. The majority of employees in the sample (63.3%), reported they had both experienced change recently and were also currently experiencing change. The remainder reported having either experienced change recently (36.7%) or were currently experiencing change (8.9%).

3.3.1.6 *Change impact*

The respondents were asked how the change impacted them – either directly or indirectly. This was to ensure that they had actually experienced change at Organisation X, or were at least aware of it, and so fitted the criteria for inclusion in the study. The majority of respondents (70.5%) were directly affected by the changes at Organisation X and 23.3% were indirectly affected. A small percentage of employees (6.2%) indicated that while they were aware of the changes, they were not affected by them.

3.4 Survey Tool

The survey was designed in five parts comprising ten questions (see Appendix A for a copy of the survey). The introductory statement provided a link to information about the survey including its purpose, invitation to participate, how data will be managed, and ethical considerations.

The second section comprised two questions to test if the participant did, in fact, fit the survey criteria. This was whether they had experienced, or were currently experiencing, change or both of these conditions. All participants answered the questions. Two further questions in this section also captured information on the respondent's status in the organisation and their tenure. A question was also asked about whether the changes had affected them directly, indirectly, or did not affect them at all. For those that answered that the changes did not affect them at all, but continued on to answer all the other questions in the survey, their data was retained.

The third section of the survey consisted of three questions using Likert scales and covered the relational variables openness to change, team listening environment, and supervisor listening environment. The measures are described in more detail below. The fourth section gave respondents an opportunity to express themselves through an open-ended question which sought respondent views about anything else they wished to say about their experience with organisational change. Finally, the fifth and last section collected demographic information with questions on gender and age.

Openness to Change Scale: The measure used to assess openness to change was an adapted version of an eight item scale developed by Miller, Johnson, and Grau (1994). The openness to change scale has been modified by various researchers including Wanberg and Banas (2000), who split the scale into two different factors, Chelwa and Kelloway (2004), Devos et al. (2007), and Erturk (2008) all who adapted the items to the situation of their studies. A seven point Likert scale was used ranging from (1) strongly agree to (7) strongly disagree. Items included in the scale were modified to reflect the actual change context of the organisation. For instance, the item that reads, *"I would consider myself*

open to the changes the work teams will bring to my work role” was adapted to read, *“I would consider myself open to the changes that I am experiencing at work”*. These modifications were similar to the other studies, as mentioned earlier, that adapted the questions to suit their particular research setting.

Team Listening Environment Scale: Johnston et al. (2011) assert that amid all the various scales that have been developed to assess listening, such as the Listening Styles Inventory, (Barker, Pearce, & Johnston, 1992), the Organisational Listening Scale (Cooper & Buchanan, 2003), the Active Empathetic Listening Scale (Drollinger, Comer & Warrington, 2006), and the Kentucky Listening Comprehension Test (Bostrom, 1980), there were no measurements that specifically looked at how individuals within a group feel heard. To remedy this they revised and refined a scale first developed by Hecht in 1978 and developed the Team Listening Environment scale which measures how an individual, as part of a group, perceives the listening climate they work in, as evidenced by the way other members of their group behave in respect of showing understanding and attention (Johnston et al., 2011). Johnson et al. conducted three studies to test the validity and reliability of this new scale. This included incorporating items from other listening scales: the Listening Styles Inventory, the Small Group Socialization Scale, and the Relational Satisfaction Scale. Results from the three studies confirmed validity of the new construct, that TLE is a distinct construct but related to other listening scales, and that it is generalisable and has nomological validity. Johnson et al.’s study also found that the TLE instrument is robust using confirmatory factor analysis.

The Team Listening Environment Scale (TLE) was adapted for this study so that the wording reflected the organisational context. For instance, item one was changed from *“The other group members pay attention to me”* to *“The other team members pay attention to me.”* This is because members of the organisation relate to the term “group” rather “team” when referring to the people who work with them. Only minor changes were made to this scale. A seven point Likert scale was used ranging from (1) strongly agree to (7) strongly disagree.

Supervisor Listening Environment Scale: The Supervisor Listening Environment scale is an adaptation of the Team Listening Environment scale. The supervisor scale is identical to the TLE with the exception of the replacement of the word “group members” with “supervisor”. As with the (TLE), a seven point Likert scale was used ranging from (1) strongly agree to (7) strongly disagree. Respondents were asked to evaluate how the person they reported directly to, listened to them. Examples of questions were “The person I report to pays attention to me” rather than “The other team members pay attention to me”.

Open-Ended Questions

Open-ended questions provide survey respondents with an opportunity to share concerns or enter a response in their own words rather than having to select a response from a series of pre-determined answers. They can provide the researcher with useful qualitative data that can give further insights into the topic at hand which closed-ended questions cannot do (David & Sutton, 2004).

In this study one question was included, and while the data will not be used in the current study, it will provide useful information that can be explored in future research. The open-ended question was: *Is there anything else you would like to tell us about your experience of listening and/or organisational change?* This question was placed towards the end of the survey just before the last two questions which were demographic in nature.

3.5 Procedures

Over a period of four months the survey was developed and a low risk notification was lodged with the Massey University Human Ethics Committee. The survey was screened in accordance with the Massey University’s Ethics Committee procedures, evaluated by peer review, and judged to be low risk. Consequently, it did not then need to be reviewed by one of the University’s Human Ethics Committees. The low risk notification was acknowledged on 7 August 2015.

An approach was made to the head of the corporate services division at Organisation X requesting access to the organisation for the purpose of this research. Approval was given in principle with the recognition that research relating to organisational change would be useful to the organisation. The full approval process took a number of months as different levels of the organisation with responsibility for people, privacy, and security considerations needed to sign off the survey research. This included three meetings with personnel from the HR division where the research was discussed, amendments to the survey suggested, and timing issues explored. One concern was that the business had only recently conducted its own staff engagement survey and given the sensitivity of the subject matter of this survey, organisational change, there were concerns that staff would jump to the conclusion that more change was on its way. Furthermore, there was concern that another survey would be overload and so the request was made for this survey to be as short as possible. An attempt to add further questions to the survey, such as organisational support, trust, and communication climate items, was not successful and will provide an opportunity for future research. In terms of timing, the survey was delayed to September due to the organisation's desire to put some distance between the staff engagement survey and the current study.

A memo setting out the purpose of the research, the procedures, and the ethical considerations was provided to the HR division along with the survey and the Information Sheet that was to be given to the employees. This memo formed the agreement as to how the data would be gathered. Assurances were given that all data would be anonymous and neither the organisation nor its employees would be identified in the report. Once final approval was gained, Human Resources personnel facilitated access to participants. An Excel database of 1856 names and email addresses of those employees that fit the research criteria was provided to the researcher.

3.5.1 Data collection

Recognising the constraints of a large organisation going through a series of change initiatives, the option of an electronic survey that only minimally impacts the work of the organisation was chosen as the optimal method to collect data.

The survey questions along with the names and emails of the 1856 possible participants who fitted the research criteria were loaded into Qualtrics (Qualtrics Development Company, 2015), an online survey software programme supported by Massey University.

3.5.2 Piloting the survey

A pilot of the survey began on 4 September, 2015 and ended on 6 September 2015. The pilot survey was sent to 10 employees that were part of the organisation but not included in the sample of 1856 people. These names were provided by the organisation with assurances they were from an area that had experienced change but not in the recent past. These ten people received a survey package by email including the information sheet which explained the purposes and procedures of the study and the link to the Qualtrics online survey. The pilot group were asked to provide feedback on the survey directly to the researcher. Seven people completed the survey and as a result, amendments and corrections were made to the survey such as a correction to a scale and improved readability.

3.5.3 Implementation of the final survey

The implementation of the final survey consisted of sending the survey package to the sample of 1856 people. This was carried out on 7 September 2015. Originally it was planned to conduct the survey over a three-week period but due to a miscommunication, a message that was to be sent out by the organisation advising employees that the survey was legitimate and that the researcher was permitted to conduct research at Organisation X, was not sent out before the survey email invitation went out at 11am. By the time the message went out, which was late in the afternoon of 7 September, the survey had already been

reported as spam and the IT department had blocked it. Two hundred people had answered the survey before this happened. The organisation was unwilling for another survey message to be sent to all employees that week, therefore, it was decided to keep the survey open for two extra weeks so that staff had an opportunity to re-access the survey they may have already started. A reminder email was sent out on 30 September to the 1471 people who had yet to respond. This elicited another 385 respondents with the survey finally closing on 12 October with a total of 583 respondents.

3.5.4 Data analysis

The data was analysed using IBM SPSS version 22. A codebook defined the variables and four items which were negatively worded in the openness to change scale to prevent response bias were reverse coded (Pallant, 2013). The code book is included as Appendix E. The survey data was downloaded directly from Qualtrics into SPSS version 22 eliminating the need for manual data entry and minimising data entry error. Descriptive statistics were run to identify any errors, such as the maximum and minimum values (there were no errors) and a manual check was conducted to identify missing data. Once the data was clean, the descriptive statistics were run again for both categorical and continuous variables to provide an overview of the sample characteristics. To ensure the validity and reliability of the data, Cronbach's alpha was calculated as well as the inter-item corrected correlation.

To answer the research questions pertaining to the relationship between openness to change and the independent variables, correlational analysis was used to determine the association and strength of the three continuous variables. These relationships were also examined through the lens of employee characteristics: position, tenure, age, and gender, using correlation analysis, to ascertain whether these demographic variables had any influence on the relationships. Then those research questions that explored whether there was a relationship between openness to change and the demographics (position, tenure, age, and gender) were explored using one-way analysis of variance (ANOVA) and the *t*-test (for gender).

3.6 Ethical Considerations

This research is subject to Massey University's Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. Amongst other things this ensures that the privacy and confidentiality of individuals, communities, institutions, ethnic groups, and other minorities is respected. A copy of the code was sent to the organisation.

The main ethical issue that needed to be taken into account in this research was the confidentiality of the participants. As the identifier of each participant was their name and email address, the names were deleted from the database and the email addresses kept confidential and deleted when appropriate. As the survey was voluntary there was no obligation for respondents to complete it. Consent was assumed by the fact that people completed the survey and this was stated in the information sheet accompanying it.

In the instructions to participants there was also a rider that respondents had the right to decline any particular question. Furthermore, participants were given the researcher's contact details if they had a question. The only questions asked related to whether the organisation had given respondents permission to complete the survey.

3.7 Conclusion

This chapter has outlined the methods used to gather and analyse the data for the research at hand. It included an explanation as to why a self-reporting, electronic survey was chosen, what procedures were used to collect the data, how the data was to be analysed, and addressed any ethical concerns. The following chapter presents the results of the data collection, which will be discussed in light of the research questions.

Chapter Four: Results

This chapter presents the results of the research that examine the relationship between the organisational listening environment, openness to change, and associated demographics. The first section of this chapter discusses the preliminary analysis that was completed to ensure the data met the assumptions needed for the statistical techniques selected. The second part presents the results of the correlations between the main three continuous variables to be analysed: openness to change, team listening environment, and supervisor listening environment. The third section examines the relationship between these three variables through the lens of position, tenure, age, and gender. And finally, the final section focuses solely on the variable, openness to change, and the impact the aforementioned demographic variables have on it

4.1 Preliminary Analysis

Of the 1856 people who were sent the online survey, 583 responded. Once data was checked for errors and missing data, the total cases available for analysis was reduced to 485, representing a 26.13% response rate.

A Missing Values Analysis was run on the data to find any patterns in the data that was missing in the sample. A large number of cases (8% of the sample) started the survey but did not complete it. This was due to the survey being blocked for some hours. These cases were deleted. However, those surveys that had only one or two items missing were retained for analysis. This meant that of the 583 cases that started the survey, 98 had considerable missing data which reduced the sample to size to 485.

The inferential statistical techniques used in this study – correlations, one-way analysis of variance, and the *t*-test have certain assumptions that need to be met before a result can be inferred from the sample to the population. These are normality, linearity, and homoscedasticity or homogeneity of variance (Tabachnick & Fidell, 2013). A scatter plot determined that the assumption of linearity was somewhat met but that the lack of a cigar shape along its length

indicated that homoscedasticity was not met. For the analysis of variance, Levene's test for equal variance of the mean determines that homogeneity of variance was met and results of this are shown in the analysis. The Kolomogorov-Smirnov test to establish normal distribution showed a significant result of $p < 0.05$ indicating the distribution was not normal.

Box plots were created to examine any outliers for the three continuous variables. Outliers and extreme results can influence the mean, standard deviation, and correlation co-efficient (Pallant, 2013). Examination of the data found that for some variables the scores were all extreme, but not for others, so it is assumed these cases are genuine and represent an authentic view. A decision was made, therefore, to retain all these scores.

As two of the assumptions for the statistical techniques were not met for correlation analysis, the non-parametric alternative, Spearman's Rho, was selected. Although an argument could be made that given the size of the sample, Pearson's r could be used, the decision was made to use Spearman's Rho given all assumptions were not met.

4.2 Internal Reliability: Openness to Change, Team Listening Environment, and Supervisor Listening Environment

Two of the scales used, openness to change (Miller, Grau & Johnson, 1994; Wanberg & Banas, 2000) and the team listening environment (Johnson, Reed & Lawrence, 2011) have been previously validated in earlier research. According to Miller, Grau and Johnson, (1994), the openness to change scale has good internal consistency when three items are removed. For the current study, the Cronbach's alpha for the openness to change scale is 0.92. This is a strong result reinforcing that the scale has good internal consistency as it is well above 0.7 which is the minimum preferred alpha coefficient (Frey, Botan & Kreps, 2000; Pallant, 2013). For this reason, all factors in the scale were retained.

For the Corrected Item-Total Correlation scores, which show how much each item correlates with the total score, none was less than 0.61. This is well above the minimum level needed for this measure, which according to Tabachnick and

Fidell (2013) is less than 0.3, and so indicates that each item correlates strongly with the total correlation score.

The internal reliability of the team listening environment scale as measured by Johnston et al. (2011) using Cronbach's alpha was 0.90. This was confirmed with the present scale with Cronbach's alpha being 0.91. Johnston et al. (2011) also carried out a validation with the Comparative Fit Index (*CFI*) being 0.95, the Root Mean Square Error of Approximation (*RMSEA*) being 0.90, with a confidence interval of 0.03 - 0.02 suggesting that the model was a good fit for the data.

The internal reliability of the adapted supervisor listening environment scale used in this study was 0.97. This was a strong result indicating good internal consistency for this six item scale.

4.3 Summation of Scales and Descriptive Analysis: Openness to Change, Team Listening Environment, and Supervisor Listening Environment

The total openness to change rating was formed by summing together all the scores from the eight items that made up the scale. Each item was measured on a seven-point Likert scale where (1) was 'strongly agree' and (7) 'strongly disagree'. The four negatively worded items were reverse coded to ensure consistency of response so that a higher score meant increasing disagreement for all items and a lower score meant increasing agreement. For example, item one read, "I would consider myself to be open to the changes that I am experiencing at work". This was not reverse coded so a higher score here meant the person disagreed they were open to change. The second question, "I am somewhat resistant to the changes that I am experiencing at work" was reverse-coded so higher scores meant they were less resistant.

4.3.1 Employee perceptions of openness to change

Table 4.1 sets out the results of employee perceptions of how open they were to the organisational changes they were experiencing using the openness to

change scale. In order to obtain a mean result that reflected the Likert scores of 1 to 7, the summated means were divided by the total number of items. The average global score in the sample lay between the 'somewhat agree' and 'neither agree nor disagree' points ($M = 3.25$, $SD = 1.29$). The typical employee 'somewhat agreed' that they were open to change while slightly leaning towards being ambivalent about it. The item most people agreed with was item one: "I would consider myself to be open to the changes that I am experiencing at work" ($M = 2.28$, $n = 485$, $SD = 1.21$).

Table 4.1. Mean Ratings for Openness to Change Scale (Items 1-8)

Openness to change Item (n =485)	Mean	Std Dev.	Result
1. I would consider myself to be open to the changes that I am experiencing at work.	2.28	1.21	Agree
2. I am somewhat resistant to the changes that I am experiencing at work. (Reversed)	3.24	1.63	Neither Agree nor Disagree
3. I welcome the effect these new changes have/will have on my work.	3.22	1.57	Somewhat Agree
4. I would rather the new changes did not /do not take place. (Reversed)	3.41	1.66	Neither Agree nor Disagree
5. I think the implementation of the recent changes has a positive effect on how I accomplish my work.	3.57	1.69	Somewhat Agree
6. I think the changes in my workplace are for the better.	3.43	1.73	Somewhat Agree
7. The changes in my workplace are for the worse in terms of accomplishing my work. (Reversed)	3.50	1.70	Somewhat agree
8. The changes in my workplace negatively affect how I perform my role. (Reversed)	3.35	1.74	Neither Agree nor Disagree

4.3.2 Employee perceptions of the team listening environment

Employees were asked to rate their perception of how the people they worked with listened to them using a six item team listening environment scale focused solely on the team members (i.e., not including the supervisors of the team). The items were each measured using seven-point Likert scales with responses ranging from strongly agree (1) to strongly disagree (7). For analysis purposes, the scale items were summated to get an overall rating (Johnston et al., 2011).

Typically, people agreed that the team listening environment was positive ($M=2.68$, $n = 485$, $SD = 0.97$). Table 4.2 sets out the ratings for each of the six items, showing that the range for all individual means sat between 2.51 and 2.79 and indicated that there was a broad consensus that the team listening environment was positive.

Table 4.2. Mean Ratings for Team Listening Environment (Items 1 – 6)

Team listening environment (n=485)	Mean	Std Dev.	Likert Scale Result
The other members of my team pay attention to me.	2.51	1.16	Agree
The other members of my team genuinely want to hear my point of view.	2.65	1.16	Agree
The other members of my team express a lot of interest in what I have to say.	2.79	1.18	Agree
The other members of my team listen to what I have to say.	2.69	1.13	Agree
The other members of my team understand me.	2.71	1.16	Agree
The other members of my team seem to be attentive to what others have to say.	2.71	1.18	Agree

4.3.3 Employee perceptions of the supervisor listening environment

Employees in the sample were asked to rate their perception of how well their line manager listened to them using a scale with six items, each measured on a seven point Likert scale ranging from strongly agree (1) to strongly disagree (7). For analysis purposes, the scale items were summated to get an overall score for this variable (Johnston et al., 2011). Measures of central tendency for the total supervisors listening environment showed that, on average, respondents agreed that the listening environment was positive ($M=2.57$, $n = 485$, $SD = 1.40$). Table 4.3 sets out the ratings for each of the six items, showing that the range for all individual means sat between 2.45 and 2.78 and indicated that

there was a broad consensus that the supervisor listening environment was viewed positively.

Table 4.3. *Mean Ratings for Supervisor Listening Environment (Items 1 – 6)*

Supervisor Listening Environment	Mean	Std Dev.	Likert Scale
The person I report pays attention to me.	2.40	1.43	Agree
The person I report to genuinely wants to hear my point of view.	2.53	1.52	Agree
The person I report to expresses a lot of interest in what I have to say.	2.68	1.55	Agree
The person I report to listens to what I have to say.	2.52	1.53	Agree
The person I report to understands me.	2.78	1.57	Agree
The person I report to seems to be attentive to what others have to say.	2.54	1.40	Agree

4.4 Correlations between Openness to Change, the Team Listening Environment, and the Supervisor Listening Environment

The next section presents the results of the correlation analyses between the three variables, openness to change, team listening environment, and supervisor listening environment, and then explores the impact the associated demographic variables, (position, tenure, age, and gender) have on these three variables. This section is structured around six research questions, with each of the last four having two parts.

4.4.1 Openness to change and the team listening environment

The first research question asked: *Is there a relationship between openness to change and the team listening environment?*

To test if there was a relationship between openness to change and the team listening environment, Spearman's Rho (r_s), the non-parametric alternative to Pearson's product-moment correlation was used as the assumptions of normality and homoscedasticity were not met.

Table 4.4 shows the results of the Spearman's Rho analysis. There was a small (Cohen, 1988) positive relationship between openness to change and the team listening environment ($r_s = .18$, $n = 463$, $p < .001$, $SP = 0.80$), therefore as the openness to change score increased, so did the team listening environment and vice versa. The shared variance figure shows that openness to change helps to explain 3.34% of the variance in scores from the team listening environment scale.

Table 4.4. Correlation between Openness to Change and the Team Listening Environment

Total Openness to change		Total Team listening environment	Shared Variance %
Spearman's rho	Correlation Coefficient	0.18**	3.34
	Sig. (2-tailed)	0.000	
	N	463	

** . Correlation is significant at the 0.01 level (2-tailed).

4.4.2 Openness to change and the supervisor listening environment

The second research question asked: *Is there a relationship between openness to change and the supervisor listening environment?*

Table 4.5 shows a medium strength, positive relationship between openness to change and the supervisor listening environment ($r_s = .34$, $n = 459$, $p < .001$, $SP = 0.99$). Shared variance shows that 11.69% of the openness to change variable overlaps with the supervisor listening environment.

Table 4.5. *Correlation between Openness to Change and the Supervisors Listening Environment*

Total Openness to change		Total supervisors listening environment	Shared Variance %
Spearman's rho	Correlation Coefficient	0.34**	11.69
	Sig. (2-tailed)	0.000	
	N	459	

** . Correlation is significant at the 0.01 level (2-tailed).

4.3.3 Post Hoc Analysis: Supervisor listening environment and the team listening environment

Although, not a focus of this research, post hoc analysis of the listening environment explored whether there was a relationship between the supervisor listening environment and the team listening environment

Table 4.6 shows there is a medium-strength, positive relationship between the supervisor listening environment and the team listening environment ($r_s = .34$, $n = 468$, $p < 0.001$, $SP = 0.99$). For the purposes of this study, the supervisor is the line manager; the person to whom the respondent directly reports. Note that this can be team leaders/supervisors, managers, or senior managers. Shared variance showed that 11.02% of the supervisor listening environment is explained by the team listening environment scores.

Table 4.6. *Correlation between the Supervisors Listening Environment and the Team Listening Environment*

Total supervisors listening environment		Total Team listening environment	Shared Variance %
Spearman's rho	Correlation Coefficient	0.34**	11.02%
	Sig. (2-tailed)	0.000	
	N	468	

** . Correlation is significant at the 0.01 level (2-tailed).

4.4.4 *Openness to change, the listening environment, and employee position*

The third research question was asked in two parts as follows: 3(a). *Does employee position influence the relationship between openness to change and the team listening environment?* 3(b). *Does employee position influence the relationship between openness to change and the supervisor listening environment?*

The relationships between openness to change and the team listening environment, and openness to change and the supervisor listening environment were examined by the position held at Organisation X using the non-parametric test, Spearman's Rho. Position was split into four categories: team member, team leader/supervisor, manager, and senior manager. Employees in the sample were asked to choose the category that best described their role.

As displayed in Table 4.7, the results show there are differences in the relationships between how open to change employees are and the listening environment of team members when broken down by position. Employees identifying as senior managers had the strongest relationship between openness to change and the team listening environment at $r_s = .56$. However, when the Bonferroni correction was applied, as is advised when making multiple comparisons (Pallant, 2013), this took the acceptable significance level to $p < 0.012$ and so this result was not significant ($p = 0.19$) and the null hypothesis could not be rejected.

Table 4.7. *Correlation between Openness to Change and Team Listening Environment by Employee Position*

Openness to change	<i>n</i>	Team listening environment	Significance	Shared Variance %
Team member	352	0.18***	0.001	3.31
Team leader/ Supervisor	27	-0.02	0.92	0.44
Manager	72	0.09	0.09	7.39
Senior Manager	7	0.56	0.19	31.80

*** Correlation is significant after Bonferroni correction at the 0.0125 level

** Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The largest group in the sample, team members ($n = 352$), showed a small, positive relationship between openness to change and the team listening environment ($r_s = 0.18$, $p < 0.001$, $SP = 0.88$) and a shared variance of 3.31%. There was no correlation between the team listening environment and openness to change for team leaders/supervisors ($r_s = -0.02$, $p = 0.92$, $SP = 0.02$) nor managers ($r_s = 0.086$, $p = 0.47$, $SP = 0.02$).

Table 4.8 shows that correlations between openness to change and the supervisor listening environment, as sorted by position, are stronger for most roles than they were for the team listening environment. The managers group showed a strong positive relationship ($r_s = .52$, $p < .001$, $SP = 0.99$) between openness to change and the supervisor listening environment. This was followed by a medium strength relationship for team members' openness to change and the supervisor listening environment ($r_s = .33$, $p < 0.001$, $SP = 0.99$). There was no relationship found between team leaders/supervisors' openness to change and the listening environment created by their supervisors ($r_s = -0.07$, $p = .72$, $SP = 0.03$) and no relationship between senior manager's openness to change and the supervisor listening environment ($r_s = -.100$, $p = 0.83$, $SP = 0.02$).

Table 4.8. *Correlations between Openness to Change and Supervisors Listening Environment, by Employee Position*

Openness to change	<i>n</i>	Supervisor Listening Environment	Significance	Shared Variance %
Team member	348	0.33***	0.00	11.00
Team leader/ Supervisor	27	0.07	0.72	0.55
Manager	73	0.52***	0.00	27.00
Senior Manager	7	-0.10	0.83	1.00

*** Correlation is significant after Bonferroni correction at the 0.0125 level

** Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The shared variance figures for team members was 11.08% which accounted for the amount of overlap between openness to change and the listening environment created by the supervisor. For managers, 27% of the variance in openness to change was shared with the supervisor listening environment. Both these were statistically significant even after using the Bonferroni correction.

4.4.5 Openness to change, the listening environment, and employee tenure

The fourth research question was asked in two parts: *4(a). Does employee tenure influence the relationship between openness to change and the team listening environment? 4(b). Does employee tenure influence the relationship between openness to change and the supervisor listening environment?*

The relationship between openness to change, the team listening environment, and the supervisor listening environment was compared with the employee's length of service using Spearman's Rho. Tenure was measured in seven categories: 6 months up to one year, one year and up to two years, two years and up to five years, five years and up to ten years, ten years and up to twenty years, and over twenty years. The rationale for the shorter time frame for the new hires was to capture the sensitivities of those who are recently inducted into

the organisation versus those who have stayed a long time and were familiar with the way the organisation worked.

As set out in Table 4.9, the results showed that there are differences in the relationship between employee openness to change and the team listening environment when examined by tenure. For those who have served in the organisation for up to five years, there was no statistically significant relationship for tenure when using the Bonferroni correction. For employees who had served between five years and twenty years, a small, positive, and statistically significant relationship was found. According to Cohen (1988, pp.79 - 81) the value of the correlation coefficient for a small, positive relationship would fall between $r_s = 0.10$ to 0.29 . Results for those who have served at the organisation between five and ten years is ($r_s = 0.27$, $p = .004$, $SP = 0.59$) and ten to twenty years ($r_s = 0.25$, $p = .007$, $SP = 0.52$). Shared variances are (7.07%) and (6.15%) respectively for these age brackets.

Table 4.9. Correlations between Openness to Change and Team Listening Environment by Employee Tenure

Openness to change	N	Team listening environment	Significance	Shared Variance %
Less than 6 months	7	0.09	0.85	0.82
More than 6 months and up to one year	24	0.21	0.33	4.28
More than 1 year and up to 2 years	54	0.11	0.41	1.29
More than 2 years and up to 5 years	87	0.09	0.39	0.88
More than 5 years and up to 10 years	115	0.27***	0.004	7.07
More than 10 years and up to 20 years	119	0.25***	0.007	6.15
More than 20 years	56	0.02	0.87	0.05

*** Correlation is significant after Bonferroni correction at the 0.007 level

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.10 shows that, except for employees who had been at the organisation less than two years, a significant, positive relationship was found between the supervisor listening environment and openness to change for all other levels of tenure. In particular, the relationship between the variables for employees who had been with the organisation between five and twenty years was strong. Cohen (1988) suggests the correlation coefficient for a medium, positive relationship falls between $r_s = 0.30$ to 0.49 . Results for five to ten-year tenure were $r_s = 0.35$, $p < 0.001$, $SP = 0.86$ and ten to twenty-year tenure, $r_s = 0.34$, $p < 0.001$, $SP = 0.87$. These results show that for these tenure periods, a medium strength positive relationship exists between the listening environment created by the supervisor and the openness to change of employees who had worked at the organisation for some considerable time.

Table 4.10. Correlations between Openness to Change and Supervisor Listening Environment, by Tenure

Openness to change	n	Supervisor Listening Environment	Significance	Shared Variance %
Less than 6 months	7	0.37	0.42	13.46
More than 6 months and up to one year	24	0.26	0.22	6.65
More than 1 year and up to 2 years	53	0.36**	0.009	12.67
More than 2 years and up to 5 years	89	0.28***	0.007	8.06
More than 5 years and up to 10 years	110	0.35***	0.000	12.46
More than 10 years and up to 20 years	120	0.34***	0.000	11.28
More than 20 years	55	0.28*	0.035	8.06

*** Correlation is significant after Bonferroni correction at the 0.007 level
 ** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

Shared variance between these two variables was 12.46% for tenure between 5 and 10 years and 11.28% for tenure between 10 and 20 years. The next largest shared variance came from those who had served between two to five years (8.06%). There was considerable shared variance for employees who had served one to two years (12.67%) and over twenty years (8.06%) but these did not meet the Bonferroni-corrected significance test.

4.4.6 *Openness to change, the listening environment, and employee age*

The fifth research question was asked in two parts: 5(a). *Does employee age influence the relationship between openness to change and the team listening environment?* 5(b). *Does employee age influence the relationship between openness to change and the supervisor listening environment?*

The relationship between openness to change, the team listening environment, and employee age was once again examined using Spearman's Rho, the non-parametric alternative as the data did not meet the assumptions of normality and homoscedasticity. Age was measured in intervals of ten years except for those between 18 and 24 years, a six year interval.

As Table 4.11 displays, there are differences in the relationships between how open to change employees are and the team listening environment when broken down by age, but none are significant when the Bonferroni correction is applied at the $p < 0.008$ level.

Table 4.11. Correlations between the Team Listening Environment and Openness to Change, by Age

Openness to change		<i>N</i>	Team listening environment	Significance Level	Shared Variance
18 – 24		29	0.38*	0.04	14.44
25 – 34		94	0.22*	0.04	4.84
35 – 44		89	0.12	0.25	1.44
45 – 54		122	0.21*	0.02	4.41
55 – 64		106	0.14	0.16	1.96
64 – 75		14	0.15	0.61	2.25
Age not specified		9	0.41	0.27	16.81
*** Correlation is significant after Bonferroni correction at the 0.008 level ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).					

As shown in Table. 4.12, a statistically significant relationship was found for openness to change and the supervisor listening environment for middle-aged employees, aged between 35 – 44 years ($r_s = 0.42$, $p < 0.001$, $SP = 0.93$) and 45 – 54 years ($r_s = 0.38$, $p < 0.001$, $SP = 0.95$). Results showed a significant, positive, medium-strength relationship between the two variables in these age brackets. The higher the rating for the supervisor listening environment, the more open to change they were. The shared variance was 17.72% and 14.1% respectively which showed a large amount of overlap between the variables in these two age groups.

Table 4.12. Correlations between the Supervisor Listening Environment and Openness to Change, by Age

Openness to change	N	Supervisors Listening Environment	Significance Level	Shared Variance %
18 – 24	28	0.52**	0.004	27.2
25 – 34	94	0.25*	0.013	6.45
35 – 44	86	0.42***	0.000	17.72
45 – 54	120	0.38***	0.000	14.44
55 – 64	108	0.24**	0.012	5.85
64 – 75	14	0.63*	0.017	38.81
Age not specified	9	0.35	0.36	12.1
*** Correlation is significant after Bonferroni correction at the 0.008 level ** Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).				

4.4.7 Openness to change, the listening environment, and employee gender

The sixth research question was asked in two parts. 6(a). *Does employee gender influence the relationship between openness to change and the team listening environment?* 6(b): *Does employee gender influence the relationship between openness to change and the supervisor listening environment?*

The relationship between openness to change and the team listening environment split by gender was examined using Spearman's Rho. Female respondents made up 64.3% of the sample with the remaining 35.7% identified as male.

As displayed in Table 4.13, the results show there are gender differences for the relationship between openness to change and the team listening environment. The difference is that males had no significant relationship ($r_s = 0.09$, $p = 0.25$, $SP = 0.01$) but females showed a positive, small to moderate relationship ($r_s = 0.234$, $p < 0.001$, $SP = 0.96$). The shared variance for males was 0.8% and for females it was 5.47%. This meant that the team listening environment accounts for 0.8%

of the openness to change for males and 5.47% of the openness to change for female employees.

Table 4.13. Correlation between Openness to Change and Team Listening Environment, by Gender

Openness to change	N	Team Listening Environmt	Significance Level	Shared Variance %
Male	162	0.09	0.25	0.8
Female	300	0.23***	0.000	5.3
*** Correlation is significant after Bonferroni correction at the 0.025 level				
** Correlation is significant at the 0.01 level (2-tailed).				
* Correlation is significant at the 0.05 level (2-tailed).				

Table 4.14 displays the results showing differences in the relationship between openness to change and the supervisor listening environment when examined by gender. There is a small, positive, significant relationship between openness to change and the supervisor listening environment for men ($r_s = .22$; $p = 0.006$, $SP = 0.71$) showing that the more positively rated the perceived listening environment the more men are open to change. The results for females were even stronger ($r_s = .41$; $p < 0.001$, $SP = 0.99$) showing a medium strength relationship. This means that the more positive the listening environment created by the supervisor, the more likely the women were to be open to change.

Table 4.14. Correlation between Openness to Change and Supervisor Listening Environment, by Gender

Openness to change	N	Supervisor Listening Environment	Significance Level	Shared Variance %
Male	159	.22***	0.006	4.60%
Female	301	.41***	0.000	16.6%
*** Correlation is significant after Bonferroni correction at the 0.025 level ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).				

For male employees the supervisor listening environment accounted for 4.60% of the variance in openness to change, and for female employees it was 16.60%.

4.5 Analysis of the Difference between Openness to Change and Employee Characteristics

This next section asked four research questions about how the following employee demographics, position, tenure, age, and gender, are related to an individual's openness to change. The purpose of these questions was to understand the variable, openness to change in more depth. The statistical technique chosen to do this (for the first three variables) was a one-way, between-groups, analysis of variance (ANOVA). ANOVA enables the mean scores of the different demographic variable levels to be compared for the dependent variable, openness to change. If the ratio of variance between the groups compared to the ratio within the groups is large it indicates that there is more variability between the different age brackets than that which could occur by chance, therefore the null hypothesis can be rejected (Pallant, 2013; Tabachnick & Fidell, 2013). Post hoc tests can identify where the differences in the groups lie. For gender and openness to change a *t*-test was used as there were only two groups to compare, male and female, for the dependent variable.

The data met all the parametric assumptions required for these two tests, apart from one. Although the openness to change variable did not meet the

assumption of normality, Tabachnick and Fidell (2013) suggest that if the sample size is large enough (30+), then the fact the distribution is not normal can be ignored. Furthermore, analysis of variance is considered robust enough to address the distribution not being normal (Pallant, 2013).

4.5.1 Openness to change and position

The seventh research question asked: *Does employee position influence their openness to change?*

A one-way, between-groups, analysis of variance was conducted to explore the impact of position on openness to change. Position was measured in four categories: team member, team leader/supervisor, manager, and senior manager. The results showed there was a statistically significant difference between the four positions at the $p < 0.05$ level for openness to change ratings, ($F(3, 461) = 7.04, p < 0.001, SP = 0.96$). The effect size, calculated using η^2 , was 0.04, which, according to Cohen's (1988) tables, is a moderate effect.

As Table 4.15 shows, post hoc multiple comparisons were used to determine where the differences were between the groups. The Tukey HSD test determined where the differences occurred among the groups at $p < 0.05$ (Pallant, 2013). These tests indicated the mean score for team members ($M = 27.11, SD = 10.46$) was significantly different from the manager's group ($M = 21.73, SD = 9.13$). The team member/supervisor group and senior manager group did not differ significantly from any of the other groups.

Table 4.15. Multiple Comparisons using Tukey's Test for the Difference between Positions and Openness to Change

Dependent Variable - Openness to change		Mean Difference (I-J)	Std. Error	Sig.
Team Member	Team Leader / Supervisor	1.73887	2.02981	.827
	Manager	5.37951*	1.29896	.000
	Senior Manager	8.53782	3.88126	.125
Team Leader / Supervisor	Team Member	-1.73887	2.02981	.827
	Manager	3.64064	2.28649	.384
	Senior Manager	6.79894	4.31334	.393
Manager	Team Member	-5.37951*	1.29896	.000
	Team Leader / Supervisor	-3.64064	2.28649	.384
	Senior Manager	3.15830	4.02145	.861
Senior Manager	Team Member	-8.53782	3.88126	.125
	Team Leader / Supervisor	-6.79894	4.31334	.393
	Manager	-3.15830	4.02145	.861

4.5.2 Openness to change and tenure

The eighth research question asked: *Does employee tenure influence their openness to change?*

A one-way, between-groups, analysis of variance was conducted to explore the impact of tenure on openness to change. Tenure was measured in seven categories: from 6 months to one year, one year and up to two years, two years and up to five years, five years and up to ten years, ten years and up to twenty years, and over twenty years. The results showed there was a no statistically significant difference between the seven positions at the $p < 0.05$ level for openness to change ratings, $F(6, 461) = 2.28$, $p = 0.04$, $SP = 0.06$. The effect size was calculated using η^2 and was 0.03, which according to Cohen's (1988) tables, is a small to medium effect.

As Table 4.16 shows (see Appendix E), post hoc multiple comparisons were used to determine where the differences were between the groups. The Tukey HSD Post-Hoc test showed no significant difference between tenure groups.

4.5.3 Openness to change and age

The ninth research question asks: *Does employee age influence their openness to change?*

A one-way, between-groups, analysis of variance was conducted to explore the impact of age on openness to change. Age was broken down into six groups in the sample: 18-24, 25-34, 35-44, 45-54, 55-64, and 65-75. The results show there was not a statistically significant difference between these six positions at the $p < 0.05$ level for openness to change ratings, ($F(5, 454) = 1.92, p = 0.09, SP = 0.97$). The effect size was calculated using η^2 and was 0.02, which according to Cohen's (1988) tables, is a small effect. No post hoc multiple comparisons were done on these results because no statistically significant result was found among the different groups.

4.5.4 Openness to change and gender

The tenth research question asked: *Does employee gender influence their openness to change?*

The most appropriate statistical test to use to compare the openness to change score for gender is the independent t -Test which compares the means for a continuous variable of two different groups, which in this case are males and females (Pallant, 2013).

The Levene's test for equality of variances examines whether the variances of scores for two groups are the same so that the requirement for homogeneity of variance can be met. For this to happen the significance level needs to be $p > 0.05$ and for these two groups was $p = 0.51$. Therefore, the assumption was met.

There was no significant difference in the scores for openness to change of males ($M = 26.93, SD = 10.37, t(467) = 1.42$) and females ($M = 25.59, SD = 10.354, t(467) = 1.42$). The differences in the means (mean difference = 1.34, $CI = 0.55$ to 3.40) and the effect size was almost negligible ($\eta^2 = 0.004$) as per Cohen's (1988) guidelines which suggest that 0.01 is a small effect.

4.6 Conclusion

This chapter sets out the results of the relationship between openness to change, the team listening environment, the supervisor listening environment, and the employee characteristics of position, tenure, age, and gender.

A key finding is that the listening environment created by the supervisor has a moderate effect on employee's openness to change. This means that 11.60% of the variance in openness to change can be explained by the supervisor listening environment. The other 88.40% is explained by other variables so it is obvious that while listening has some effect on employee's openness to change, it is only one of many factors that can affect their openness to change.

Another key finding was that the relationship between employee's openness to change and the listening environment created by team members was small with a shared variance of 3.34% between them. However, while there is a positive association between the two, it is obvious that how team members listen to each other plays a very small part in those things that influence an individual's openness to change.

The association between the two listening environments was also positive with a moderate effect size. As the supervisor listening environment increases so does the team listening environment with 11.02% of variance in one being explained by the other. This provides an insight into how supportive environments may build on each other and is a possibility for further research.

The impact on the relationship between openness to change and the two different listening environments was also looked at through the lens of the following four employee characteristics: position, tenure, age, and gender. Employees who were managers had a strong, positive relationship between openness to change and the listening environment created by the supervisor, with 27% of the variance in one being explained by the other. Team members had a small, positive relationship between the team listening environment and openness to change, and a medium one with the supervisor listening environment with shared variances of 11%.

A small, significant relationship was found between openness to change, the team listening environment, and employee tenure for two of the groups: those who had served between 5 and 10 years, and between 10 and 20 years. A medium strength relationship for the supervisor listening environment was found for these same groups, as well as those who had worked from two to five years

The age of the employee did not affect the relationship between openness to change and the team listening environment. However, for employees aged between 35 and 54, there was a medium strength relationship between the supervisor listening environment and openness to change.

There was a small relationship between the team listening environment and openness to change for female employees but none for males. However, both female and male employees' openness to change scores were influenced by the supervisor listening environment with females showing a large effect size.

The last four questions in this study analysed how the dependent variable, openness to change, was related to the four employee characteristics: position, tenure, age, and gender. Position has a small effect on openness to change for team leaders and managers. However, the employee tenure, age, and gender had no effect on their openness to change.

Finally, to sum up, the main finding of this study was that an employee's openness to change is particularly responsive to how their supervisor listens to them. Position, tenure, age, and gender all have an impact on this relationship as well. However, the listening environment created between team members has only a small influence on employee openness to change. For this relationship, position, tenure and gender all influence how open to change employee are, but the age of the employee has negligible effect.

The main findings of these nine research questions presented in this chapter will be analysed in the next chapter and ideas for future research in this area will be suggested.

Chapter Five: Discussion and Conclusion

The primary objective of this study is to determine how the organisational listening environment is related to individual's attitudes towards change, and in particular the attitudinal construct, openness to change. The listening environment is operationalised into two parts; the environment created by the supervisor and the environment created between team members. Two further objectives examine whether certain demographic variables influence the relationship between openness to change and the listening environments and whether they have an impact on openness to change.

The results presented previously are discussed in this chapter by examining each of the research questions and the related findings. The first two questions, which relate to the relationship between the listening environments and openness to change, are discussed in the first section, along with a post hoc analysis of the relationship between the listening environments. The next four questions explore the relationship between openness to change, the listening environments, and the demographic variables: position, tenure, age, and gender. Following this, research questions 7 to 10 look at whether there is a relationship between the demographic variables and openness to change. The final section of this chapter discusses the potential limitations of this present study and suggestions for future research. The chapter ends with overall conclusions.

5.1 Relationship between Openness to Change and the Listening Environment

The findings support a positive relationship between the two different listening environments and openness to change. However, the relationship between the team listening environment and this change attitude is very small compared to a more robust, positive connection between the listening environment created by the supervisor and openness to change.

Openness to change is conceptualised as being willing to support change and feeling positive about it (Miller, Johnston, & Grau, 1994). As mentioned prior, the supervisor and team listening climates in the organisation under scrutiny are generally positive. This means that individuals in this organisation perceive that both their team members, and their supervisor, are responsive to their ideas, opinions, and feedback (Gilchrist & Van Hoeven, 1994). In terms of the climate created between co-workers, perceptions of being listened to can account for up to one third of how individuals evaluate the communication competence of their fellow workers (Hass & Arnold, 1995). A positive listening climate can also contribute to affective responses such as feeling valued, trusted, and connected to the group.

5.1.1 Openness to change and the team listening environment

The first research question asks: *Is there a relationship between openness to change and the team listening environment?* The team listening environment can be understood as positive when an individual's perception of team members' behaviours gives them a feeling of honest attention and understanding (Johnston et al., 2011). It is characterised by how co-workers interact and relate with one another. The effects of a positive listening experience at work for an individual have been found to increase their trust, morale, commitment, and performance to the workplace (Reed, Goolsby, & Johnston, 2014). In turn, these individual attributes all contribute to a supportive environment which is one of the contextual antecedents that impact positive employee reactions to change (Oreg et al., 2011). A supportive environment is one where the individual is trusting enough to take a risk and communicate ideas and feelings to workmates about issues that affect them, such as a change situation. Furthermore, as Ford et al., (2002) contend, it is through the background conversations that happen between team members, where meanings are exchanged, that individuals make sense of their world. This discourse frames how employees think about change and whether they support it or resist it (Smollan, 2009).

However, the findings show that this relationship is very small ($r_s=0.18$) with a shared variance of 3.3%. Therefore, it seems that factors, other than just how well team members interact with each other, can impact how open to change they are. According to Oreg et al.'s. (2011) model, antecedents that influence how individuals react to change include not just the internal context, of which the listening environment via the communication climate is one part, but also the characteristics of the individual, the change process, and the content of the change. Many of these have already been shown to influence individual's attitudes to change (Chawla & Kelloway, 2004; Devos et al., 2007; Wanberg & Banas, 2000). Therefore, although the direction of the relationship has not been established, it seems that the small association between the listening environment and team members could signal that a positive listening environment is a contributor to an individual's openness to change.

5.1.2 Openness to change and the supervisor listening environment

The second research question asks: *Is there a relationship between openness to change and the team listening environment?* The supervisor listening environment, as defined in the present study, is a modified form of the team listening environment developed by Johnston et al. (2011). It is conceptualised as an individual's perception of the communicative behaviours of the person they report directly to that, when positive, gives a feeling of honest attention and understanding (Johnston et al., 2011). The supervisor is defined as the person the employee directly reports to, and so is assumed to have control over their day-to-day work. The listening environment, when positive, is characterised by a climate where the employee feels the supervisor pays attention to them, is interested in what they have to say, and genuinely wants to hear their point of view. However, this environment is not just about how the supervisor listens to the employee and understands what they say, but whether the employee perceives that the supervisor also listens to others as well. The results of this study show a positive and considerable relationship between the supervisor listening environment and openness to change. The more positive the supervisor listening environment the more open the employee is to change.

The relationship between the supervisor and employee is one of the most critical of all work relationships (Bambacas & Patrickson, 2013). It is grounded in social exchange theory and the reciprocal positive outcomes that happen when two parties act favourably toward each other (Blau, 1964). Leader-member exchange theory emphasises the quality of the relationship between employee and supervisor and, along with perceived organisational support, influences employee attitudes and behaviours (Wayne et al., 2002). The interpersonal relationship between employees and their managers evolves from a social exchange perspective where each person offers something the other sees as having value. The greater the value of the exchange, the higher the quality of the relationship. Liden, Sparrow and Wayne found strong LMX relationships to positively impact employee and supervisor behaviours such as attitudes to the job (as cited in Wayne et al., 2002).

The communicative style of the supervisor can also affect the quality of the relationship between employees and their managers (Sethi and Seth, 2009). The quality of the interpersonal communication skills of the supervisor is key to being able to successfully convey information about the change to the employee. Communication that flows up and down the line in a change situation acts to reduce uncertainty about the change and decrease resistance to it (Frahm & Brown, 2007). Further to this, perceived supervisor listening has been shown to be important for positive work outcomes (Lloyd, Boer & Keller, 2014). The opportunity for the employee voice to be heard, through the listening environment provided by the supervisor, who acts as a conduit, or listening ear, through which employees can provide feedback, creates positive affect amongst employees leading them to support organisational outcomes of which change is one.

A clear link has also been shown between the way managers communicate and openness to change mediated by trust and procedural justice (Devos et al., 2007; Erturk, 2008). Positive relationships between supervisors and employees have been associated with employees being more open and ready to change (Shah & Shah, 2010). The positive affect the employee feels as a consequence of the supervisor listening to them, and the flow on effects of feeling valued and

cared for by the organisation, fosters a supportive climate which encourages them to be more willing to change (Eby et al., 2000). In answer to Shah and Shah's (2010) assertion that little is known about the outcomes of listening and the employee-supervisor relationship, the finding that there is a statistically significant, positive relationship between the listening environment created by the supervisor and employee's openness to change adds to the understanding of research on listening and also that of attitudes to change.

5.1.3 Supervisor listening environment and the team listening environment

Although not an objective of this research, the relationship between the supervisor listening environment and the team listening environment was analysed post-hoc. The results show that, in fact, there is a moderate, statistically significant, relationship between these two variables.

A supportive communication climate is one which is typified by the nature and quality of the interpersonal relationships that occur within the organisation. Gibbs (1961) developed a set of behaviours that typified a supportive climate. These include a non-judgemental atmosphere, a people-centred ethos, empathetic responses, a climate of equality, and a problem-solving approach. People who work together affect each other's behaviour (Montgomery & Seefeldt, 1986). Affective events theory (Weiss & Cropanzo, 1996) proposes that if employees experience negative affective events at work they are more likely to react with negative behaviours such as withdrawing effort and aggressive behaviour, or in a change situation for example, by resisting change. Alternatively, positive affective experiences such as those that come from a supportive communication climate lead to prosocial organisational behaviours such as helping co-workers (Shah and Shah, 2010). Extrapolating from this, then, when the supervisor models supportive behaviour, such as effective listening, employee feelings of being cared for, valued, and connected are more likely, and this can influence their behaviour, contributing to a positive communication climate (Boudrais, 2010). It is possible, under leader-member exchange theory (Wayne et al., 2002), the employee is influenced by the supervisor's listening behaviour and in return, responds by incorporating good

listening practices as part of their workplace behaviour. This could explain the finding that the supervisors listening environment has a moderate, positive correlation with the team members listening environment. The more positive the ratings of the listening climate set by the supervisor, the more positive the ratings of the team members listening environment, and vice versa.

5.1.4 Openness to change, the listening environment, and position

The third research question is in two parts. The first part asks: *Does employee position influence the relationship between openness to change and the team listening environment?* The second part of this question asks: *Does employee position influence the relationship between openness to change and the supervisor listening environment?*

To determine whether the position held by an individual at an organisation impacts the relationship between openness to change and the listening environments, four organisational levels were explored: team members, team leader/supervisor, manager, and senior manager.

5.1.4.1 Team listening environment and position

Team members showed a small, positive relationship between their perceptions of the team listening environment and openness to change ($r_s = 0.18$, $n = 352$, $P < 0.001$, $SP = 0.88$). This mirrors the earlier result where the relationship between openness to change and the team listening environment, for team members, [who formed a large portion of the sample], was also small ($r_s = 0.18$, $n = 463$, $p < 0.001$, $SP = 0.80$.) The overlap between the two variables was 3.31% representing their shared variance. Team members represented the largest group in the sample by far (73%), so it is not surprising that the results were very similar to those found in section 4.2.1, where the shared variance between openness to change and the team listening environment was 3.34%.

Employee position had no significant impact on the relationship between the team listening environment and openness to change for the other three positions that were explored: team supervisors, managers and senior managers.

Therefore, the results of team leader/supervisor and manager change ratings are not outlined here as no relationship was found. One explanation for the lack of a relationship between the two variables for these positions is that managers tend to be more upward facing (McConnell, 2009), and so their attitude to change is not influenced by the listening environment created by their peers, that is, the other managers/supervisors in their group, as it is by the listening environment created by their supervisor. This finding could do with further investigation.

Senior manager's perceptions of the senior managers' team listening environment correlate positively and highly with their ratings of openness to change. However, the senior managers group is a tiny sample of seven, the statistical power is very low and the result is not statistically significant, so these results cannot be interpreted further. Given the size of the correlations, it could be worth further exploring the senior management relationships using an increased sample size, to see, if in fact, those with positions of high authority have a different relationship with listening and openness to change.

5.1.4.2 Supervisor listening environment and position

A strong, positive relationship was found to exist between the openness to change of managers and the listening environment created by their supervisors, who are assumed to be senior managers. According to the literature, the function of the middle manager is an essential one in times of change (Raelin & Cataldo, 2011; Giaque, 2015). Middle managers are the link between senior management, who essentially deal with strategy, and employees who implement that strategy (Harding, Lee, & Ford, 2014). They also interpret the commands and rules of the organisation into something that employees can understand and work with, co-ordinate the work programme, manage budgets, problem-solve issues including conflicts, and are the conduit for information as it flows from bottom-up and top-down (Giaque, 2015). Therefore, in a change situation, the middle manager's role is critical as they occupy the "interstitial spaces" between those at the top and those at the bottom (Raelin & Cataldo, 2011, p. 483).

According to Raelin & Cataldo (2011), middle managers can make or break a reform process. Their buy-in is critical. The crucial role they play in the change process, as the link between senior management and employees, and the way they manage the discourse about change, is a key factor to whether change is accepted or resisted by employees. If middle managers are listened to by their superiors, they have an opportunity to voice their opinions about change, and discuss it with their superior in a way that makes them feel heard, then this, according to the findings, significantly positively contributes to how open they are to the change. It is possible, this behaviour could have a flow on effect to how middle managers present the change to their subordinates as they feel empowered to become change facilitators rather than change resisters.

Furthermore, research shows that one skill of effective senior management is knowing how to listen well (Flynn, Valikoski, & Grau, 2008; Maes, Weldy, & Icenogle, 1997). The finding that senior managers' direct reports are significantly more likely to be open to change when they feel listened to by their manager, shows how important effective listening is to achieving organisational goals.

The listening environment created by the supervisor also has a small, positive relationship with team members' openness to change. It is interesting to note that the effect of the relationship is smaller than it is for managers in the population studied, given that they both agreed that the supervisors listening environment was positive. It is possible, that the difference could be explained by the fact that managers are in a position of authority and so are privy to information that is often not available to those in lesser positions of power. Therefore, managers' discussions with senior management do possibly take place from a more informed position than that of their subordinates. They are able, therefore, to ask questions that are more targeted or relevant to the situation, and pass opinions on the change situation that they know could have more effect on the outcome than employees would have, who do not have the same access to senior management. Supporting this explanation, access to information about change has been shown to be an important variable contributing to an individual's openness to change (Miller et al., 1994; Wanberg & Banas, 2000). Therefore, if managers hold information back from their

employees, or are more closed than their own manager regarding listening to their employees, then the flow on effect is employees may not be as open to change as they could be.

5.1.5 Openness to change, the listening environment, and employee tenure

The relationship between openness to change and the listening environment was looked at through the lens of different levels of employee tenure to see if the amount of time an employee serves had an effect on this relationship.

Tenure was measured in seven categories: six months up to one year, one year and up to two years, two years and up to five years, five years and up to 10 years, ten years and up to twenty years and over twenty years.

5.1.5.1 Team listening environment and tenure

An earlier finding showed a small, positive relationship, overall, between employee's perceptions of how their team mates listen to them and the employee's openness to change. When looking at this result by tenure, a significant and positive relationship is found between openness to change and team listening environment for employees who were well established in the organisation, having served there between five and up to 20 years of their working lives. For employees who had worked at the organisation less than five years there was no relationship between the team members listening environment and openness to change. Furthermore, there was no relationship for those who had worked in the organisation for more than 20 years.

The interpersonal relationships between team members is key to creating a supportive work environment (Furst & Cable, 2008). When team members work together, they interact with each other daily and have what Ford et al., (2008) calls the background conversations about what is happening in their area. As time goes on, individuals begin to align their understanding of events, and what they expect to happen in the organisation, with their team mates and a shared culture is formed (Schein, 1996). In a change situation, the process of collective sensemaking helps frame the individual responses towards the change (Weick, Sutcliffe, & Obstfeld, 2005). It is through this discourse that people interpret the

new and different events that occur when change happens. It is as part of this communication process that listening occurs and Brownell (2008) proposes that “good listener’s listen even as they speak” (p. 217). Employees feel valued by their cohorts when their comments and ideas are responded to (Senecal & Burke, 1992). It is surmised that for those who have worked together for a considerable length of time, the way they listen to each other, and allow each other to express their thoughts and ideas about a change situation, influences their willingness to accept and support the change and how they feel about it.

Furthermore, Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002) found that perceived organisational support is related to employee retention. Therefore, another explanation for the positive (albeit small) relationship between team listening environment and openness to change for those who have worked at the organisation for a considerable time could be that a supportive environment, of which the listening environment is one factor, contributes to not only prosocial behaviours such as positive attitudes to change but to their retention in the organisation

The results found that the relationship between openness to change and the team listening environment was different at different stages of tenure. So that while there was a small and positive relationship for those who worked at the organisation between five and 20 years, there was no relationship between openness to change and the team listening environment for those who had tenure less than five years or over twenty years.

One explanation for this can be found by understanding the curvilinear relationship that has been found between tenure and organisational identification. Hammeed, Roques and Arain (2013) found tenure had a moderating effect on the relationship between organisational identification. They believe that understanding the stages of tenure and the “inflection points” (p.3) where attitudes of individual’s towards the organisational may change, could help organisations design strategies to accommodate these points. Individuals in their early career are establishing themselves, setting up their networks, and developing their skills. In mid-career they are consolidating their

achievements and are more focused on stability and family. In the late career stage, they are disengaging, and focused on what is coming and their personal life (Hameed et al., 2013). Therefore, it can be argued that the lack of a relationship between openness to change and team listening environment for those with long tenure is because they no longer need the attention and understanding that they may have needed at an early stage of tenure. For those with less than five years tenure, however, this argument does not hold, as it would be surmised that they would be responsive to a supportive environment if they felt understood and attention was paid to them. This is an area for more research.

5.1.5.2 Supervisor listening environment and tenure

When an employee perceives that the person they directly report to understands them and pays attention to what they say, they feel valued and respected. This leads on to prosocial behaviours of which the willingness to support and accept a change situation is one (Xerri, 2015). Of interest is whether the length of service an employee has with the organisation makes a difference to the relationship between the supervisor listening environment and how open to change the employee is. Results show that, except for relatively new hires, there is a positive and moderate relationship between these two variables and tenure (over five years). One possible reason for this is that trust, which is so important to the quality of interpersonal relationships, takes time to develop. Erturk (2008) showed that trust in one's supervisor fully mediates the relationship between managerial communication and openness to change. The longer the employee has been with the organisation, the more opportunity to form a trusting relationship with their supervisor, and trust has been shown to be an important factor in influencing openness to change.

5.1.6 Openness to change, the listening environment, and age

The results of the current study show that employee age had no influence on the relationship between openness to change and the team listening environment. However, age had an impact on the relationship between the supervisor listening environment and openness to change. There was a moderate and

positive relationship for openness to change and the supervisor listening environment for employees aged between the ages of 18 and 24. This finding could be because young people are still very new to organisational life and having a supervisor that pays attention to them, and listens to their questions, engenders prosocial behaviours such as being open to new things in the organisation.

A considerable relationship also exists between the supervisor listening environment and openness to change for those aged between 35 and 54 years. This may be related to tenure, a question that would be interesting to explore. It is possible that generational differences occur in how receptive people are to the input of their supervisor and this affects their attitude to change. The more employees in these age groups felt understood, cared for and supported, the more receptive to new and different things happening at the organisation. Employees in this age bracket are usually in mid-career. Change could also represent an opportunity to expand their horizons, learn new skills, and move upwards in the organisation.

For two of the other age groups, (55-64; 65-75) there was no significant relationship between the supervisor listening environment and openness to change. The explanation for this can be traced to the career life cycle, where people 55 and over are in the normal course of events, in the last stages of their career and have a more personal, rather than career oriented, focus. They are beginning a process of disengagement and this is possibly why they are less responsive to the work environment.

5.1.7 Openness to change, the listening environment, and gender

Both the team listening environment and, particularly, the supervisor listening environment influenced female's openness to change and to a much lesser extent, men's reaction to change. Deconstructing this, it appears that when women are listened to, they feel valued and understood by their team mates (a small relationship) and their manager (a larger relationship), and this leads to feelings of pleasantness and positive regard (Steuter, 2015). These feelings lead on to positive outcomes of which, in times of change, can be demonstrated

by the willingness to support change and feel positively towards it. However, men did not have the same magnitude of response as the females. In fact there was no relationship for males between the team listening environment and openness to change.

Research has shown that men and women function differently in relationships at work. Males are more likely to form functional, work oriented relationships and females focus on the social and emotional aspects of a relationship (Oden and Silius; Ashton & Fuerhrers, as cited in Morrison, 2007). Men form relationships through working together on action oriented activities and women through sharing emotions and feelings, particularly in times of work stress (Morrison, 2007). These gender differences in how men and women relate could explain the correlation differences in the team listening environment and openness to change. For men, it may simply be that how the other people they work with understand them and pay attention to them may not be as important as it is for women.

Correlation analysis has shown that males had a smaller relationship between the supervisor listening environment and openness to change compared to females who had a medium strength relationship with these variables. Although both genders are responsive to the environment their supervisor creates, females are more so. Future work could be to review how men and women communicate at work, to get a better understanding of why women have a stronger relationship between both listening environments and openness to change.

5.2 The Influence of Employee Characteristics on Openness to Change

The final four research questions sought to understand whether the variable openness to change was impacted by the four demographic variables that were used earlier in this study. These are position, tenure, age, and gender. Other demographics, such as education, income, family relationships, and so on could have been included but due to the need to keep the survey as simple as

possible to encourage employee's response, the decision was made to concentrate on the four core demographic variables.

Personal characteristics have been shown to affect how individuals react to change (Oreg, 2006). This includes personality factors such as extraversion, openness to experience, agreeableness, and conscientiousness which have been found to be positively related to attitudes towards organisational change (Vakola, Tsaousis, & Nikolaou, 2004). A relationship between readiness for change, of which openness to change is seen as a precursor (Armenakis et al., 1993), and the employee characteristics of gender, employee age, educational level, and number of children was found by Madsen, Miller and John (2005). On the other hand, Coyle-Shapiro (1999) established, among other things, that employee status, tenure, age, and gender had no influence on employee's assessment to participate in a total quality management change initiative. Therefore, it was of interest to see whether employee characteristics would have an impact on openness to change. The characteristics that were explored, as previously stated, were position, tenure, age and gender.

The variables age, gender, and length of service had no influence on employee openness to change. However, the position an employee held in the organisation had a moderate effect on their openness to change. The positions where there was a difference in the variance of the means for openness lay were with team members and managers. An explanation why managers are more open to change than team members could be that they have access to information that team members don't, and so they are in a better position to understand what the change will mean for them. This is supported by Miller, Johnson and Grau's (1994) finding that the better the quality of information about a change the more likely the recipient will support it.

5.3 Limitations of this Research

There are limitations to this research. First, the research took place at one time, using one method of data collection, a self-report survey. Therefore, common method bias cannot be ruled out as multiple constructs were measured within the same survey which can produce spurious correlations among the items

being measured. This can be due to do the way respondents respond to the questions, answer the questions in the way they think others want them to, or in priming effects due to the order of the questions (Kamura, 2010).

For this survey, it is possible that self-report bias could happen as the nature of listening assessment instruments is such that individuals may want to think that the people they work with every day, and the person they report to, listen to them. Furthermore, given the environment of constant change, it is conceivable that respondents, having experienced change previously, want to be thought of as being open to change and not obstructive to it even if they really are. The need to appear in a certain way results in social desirability bias which can compromise research results by not dealing with authentic answers. It is proposed that the social desirability bias possibility is managed via the use of an anonymous survey design as used in this study. Future researchers may consider using a triangulation of mixed-methods, such as qualitative individual semi-structured interviews, along with the survey, to cross-check whether the data from these different sources delivers the same result.

Another limitation is that the data was collected from one research setting, a public service organisation. Therefore, the findings may not be generalizable to organisations in other settings. However, the nature of the organisation, which has thousands of employees, with different functions, working in different areas across the country, may counter the fact that the data came from one place.

The sample itself of 1586 people may also have been subject to bias as the sections and names chosen to be part of the study, whilst fitting the criteria specified for this study, were selected by the organisation, and there is no way of knowing that everyone in those sections was asked to participate in the study. However, there is nothing to indicate that people who fitted the criteria in the divisions were not chosen.

5.4 Suggestions for Future Research

This study aimed to address a gap in the literature regarding the connection between an organisation's listening environment and how it affects employee

openness to change. Future research could include conducting the study in different organisational settings such as other public service organisations, private corporations and even the non-profit sector. It would be useful to see if there was any difference in the relationship between employee openness to change and the listening environment in a variety of research settings.

Applying other research methods, such as qualitative interviews and participant observations could also provide different data that would enrich the understanding of these results. The data from open ended questions in this study was not used and this would be a good starting point for further analysis.

Another line of research would be to test the relationship between the organisational listening environment and employee's openness to change in different change circumstances. For instance, is there a difference to the relationship if change happens within the system or in a change situation that is transformational, such as one that alters the whole organisational template.

Post hoc analysis carried out on the relationship between the team listening environment and that created by the supervisor, found a positive, moderate effect. The insight gained from this is that supportive listening environments build on each other. However, further research could better understand this relationship by looking at the impact of employee characteristics on these two variables, along with other variables such as measuring whether trust and commitment affect these listening environments.

Future research that looks at how position impacts the relationship between the team listening environment and openness for change could focus on the senior manager's perceptions of their team listening environment. These correlate positively and highly with their ratings of openness to change. However, the senior managers group in this study was a tiny sample of seven, the statistical power very low and the result not statistically significant, so these results cannot be interpreted further. Given the size of the correlations, it could be worth further exploring the senior management relationships using an increased sample size, to see, if in fact, those with positions of high authority have a different relationship with listening and openness to change.

5.5 Conclusion

Change is ubiquitous and in today's ever-changing world, being able to meet the demands for change successfully can be the difference between an organisation surviving or failing. This research focused on change at the individual level, and on one attitude to change in particular, openness to change. Oreg et al's.(2011) model that set out the relationships between the antecedents, reactions and consequences of change showed that among other things, the internal context of an organisation is an antecedent to the attitudes employees hold towards change. The organisational climate, which is part of the internal context of the organisation and exists pre change, can be further divided into different climates, of which the communication climate is one. This study looked at one aspect of the communication climate, the listening environment, and whether there is a relationship between this and employee openness to change.

This listening environment was broken down into the team listening environment and the supervisor listening environment. Based on the results, it can be concluded that the listening environment created by team members, and the supervisor listening environment, influences employee openness to change. The team listening environment had a smaller effect on employee openness to change than did the supervisor listening environment, which had a moderate effect. The overall implication here is that positive listening environments contribute to positive attitudes to change.

The relationships in this study were also explored through the lens of position, tenure, age, and gender to gain a deeper understanding of the influence of these demographic variables have on them. For the team listening environment and openness to change, there were differences between the position, tenure and gender but not for age. For the supervisor listening environment, there were differences in all four variables and openness to change. Understanding how these demographic variables can impact openness to change, can be useful as change management strategies are developed.

The key finding of this study for organisations undergoing change is that the quality of the interpersonal relationship between employees, and their

supervisor, as demonstrated by how they are listened to, creates a supportive environment where employees feel understood, valued and cared for. This influences an employee's willingness to support new and different things, that is, their openness to change, and whether the employee will embrace change or resist it. This ultimately contributes to the success of the change and possibly the survival of the organisation.

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Appendix A: Survey Items

Openness to Change Items: (Adapted from Miller, Johnson, & Grau, 1994)

1. I would consider myself to be open to the changes the recent change initiative brought to my workplace.
2. I am somewhat resistant to the changes that I am experiencing at work
3. I welcome the effect these changes have/will have on my workplace.
4. I would rather the changes did not/do not take place.
5. I think the implementation of the recent changes will have a positive effect on how I accomplish my work.
6. I think the changes in my workplace are for the better.
7. The changes in my workplace are for the worse in terms of accomplishing my work.
8. The changes in my workplace negatively affect how I perform my role.

Team Listening Environment Survey Items (Johnston, Reed & Lawrence, 2011)

1. The other group members pay attention to me.
2. The other group members genuinely want to hear my point of view.
3. The other group members express a lot of interest in what I have to say.
4. The other group members listen to what I have to say.
5. The other group members understand me.
6. The other group members seem to be attentive to what others have to say.

Supervisor Listening Environment (adapted from Johnston, Reed & Lawrence, 2011)

1. My supervisor pays attention to me.
2. My supervisor genuinely wants to hear my point of view.
3. My supervisor expresses a lot of interest in what I have to say.
4. My supervisor listens to what I have to say.
5. My supervisor understands me.
6. My supervisor seems to be attentive to what others have to say.

Appendix B: Survey Information Sheet



Research on Organisational Change Information Sheet

Introduction

Hello. My name is Nicola McFaull and I am working on my Master's Thesis majoring in Communication at Massey University.

In today's world, organisations need to be able to adapt to meet the ever-changing needs of their environments. Yet research has shown that many change initiatives are not successful. The attitudes towards change of people in the organisation have been found to be really important to how successful a change may be. Many factors can influence how people perceive a change situation. These include the change process, the content of the change and the organisational context.

I am interested in learning more about whether the listening environment at work impacts organisational change. The listening environment refers to whether employees feel their opinions, ideas and feelings are being heard – that is, whether they are being listened to.

Invitation to Participate

I would like to invite you to participate in my survey. Your experience as someone who has recently gone through, or is currently going through, a change at your work would be most valuable to this research.

You could help us further the understanding of organisation change which could be helpful to both organisations and their members as they face an ever-changing environment. I would therefore be very grateful if you would take part in my study.

This survey is being conducted solely for academic purposes and is entirely independent of the Organisation X.

It is strictly anonymous so you can be assured that neither you, nor your employer, will be identified in any way so please answer honestly and truthfully.

Project Procedures

If you decide to participate, I would be very grateful if you would complete the

following online survey. This will take less than 10 minutes. You are under no obligation to accept this invitation. Participation and completion of the questionnaire implies your consent. However, you have the right to decline to answer any particular question(s).

Data Management

Once the survey has been completed, the data will be analysed. It will then be stored for five years and be available only to myself and my supervisors, Professor Frank Sligo and Dr. Niki Murray. The data will be kept in the locked office of Dr Niki Murray at the Palmerston North campus of Massey University, who will later dispose of it securely.

Upon request, I can provide participants with the high level, anonymised results of my study showing the connections between the variables.

If you have any questions, please feel free to contact us and thanks for taking the time to read this. Our contact details are provided below.

Thank you.

Nicola McFaull
Researcher
September 2015

Contact information

Please contact us if you have any questions about this survey.

Researcher

Nicola McFaull, School of Communication, Journalism & Marketing

Massey University, Email: nicola.mcfaul.1@uni.massey.ac.nz

Phone 0274 511 366, 04 479 2772

Supervisors

Dr Niki Murray, Senior Lecturer, School of Communication, Journalism & Marketing, Massey University, Room 2.23, Social Sciences Tower, Turitea, Phone: (06) 356 9099 ext. 83977

Email: N.S.Murray@massey.ac.nz

Professor Frank Sligo, School of Communication, Journalism & Marketing, Massey University, Wellington. Room Five E 10, Block Five, Wellington, Phone: +64 (04) 801 5799 ext. 63541

Email: F.Sligo@massey.ac.nz

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees.

The researcher(s) named above are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact

Dr Brian Finch, Director Research Ethics

Telephone 06 356 9099 extn 86015, email: humanethics@massey.ac.nz".

Appendix C: Emails to Survey Respondents

Hello. My name is Nicola McFaull and I am researching organisational change and listening through Massey University.

I would be very grateful if you would help me further the understanding of change by taking my survey, drawing from your experience as someone who has gone through a change in your workplace recently. The survey will take about 5 minutes to complete.

An information sheet on the first page of the survey provides more information about the survey as well as how to contact me. Please note, although this survey is independent of the XXX, they have kindly given permission for it to be distributed to people in this organisation.

Thank you in advance for being part of my research.

[\\${!://SurveyLink?d=Take%20the%20Survey}](#)

Nicola McFaull
Massey University

Hi there

Three weeks ago you received an email from me inviting you to participate in my research on organisational change and listening which I am doing through Massey University.

I would be very grateful if you would help further the understanding of change by taking my survey drawing from your experience as someone who has gone through a change in your workplace recently. The survey will take about 5 minutes to complete.

Find attached an information sheet that provides more information about the survey as well as how to contact me.

[Information sheet for organisational change survey sep 2015](#)

Please note although this survey is independent of XXX, they have kindly given permission for it to be distributed to people in this organisation.

[\\${!://SurveyLink?d=Take%20the%20Survey}](#)

Thank you in advance for being part of my research.

Many thanks
Nicola McFaull
Massey University



Appendix D: Low Risk Ethics Letter

7 August 2015

Nicola McFaul
13 Satara Crescent
Khandallah
WELLINGTON 6035

Dear Nicola

Re: The Relationship between an Employee's Openness to Change and an Organisation's Listening Environment

Thank you for your Low Risk Notification which was received on 30 July 2015.

Your project has been recorded on the Low Risk Database which is reported in the Annual Report of the Massey University Human Ethics Committees.

You are reminded that staff researchers and supervisors are fully responsible for ensuring that the information in the low risk notification has met the requirements and guidelines for submission of a low risk notification.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research."

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), telephone 06 356 9099, extn 86015, e-mail humanethics@massey.ac.nz".

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to provide a full application to one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

Brian T Finch (Dr)
**Chair, Human Ethics Chairs' Committee and
Director (Research Ethics)**

cc **Dr Niki Murray**
School of Communication, Journalism and
Marketing
PN254

Prof Shiv Ganesh, HoS
School of Communication, Journalism and
Marketing
Albany

Prof Frank Sligo
School of Communication, Journalism and
Marketing
Albany

**Massey University Human Ethics Committee
Accredited by the Health Research Council**

Research Ethics Office, Research and Enterprise

*

Appendix E: Survey Codebook

Survey on Organisational Change and the Listening Environment Codebook for SPSS Use.

Variable	SPSS Variable	Coding Instructions
ID	Survey Number	1.0
Tenure in organisation by years	Tenure	1 = Less than six months 2 = More than 6 months and up to 1 year 3 = More than 1 year and up to 2 years 4 = More than 2 years and up to 5 years 5 = More than 5 years and up to 10 years 6 = More than 10 years and up to 20 years 7 = More than 20 years
Position in organisation by level	Position	1 = Team Member 2 = Team Leader/ Supervisor 3 = Manager 4 = Senior Manager

Time changes happened	Time	1 = Happening Now 2 = Happened Recently 3 = Both of above
How changes affected person	Affected	1 = Directly 2 = Indirectly 3 = No affect
Openness to Change Scale	Openness 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	Openness 2	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	Openness 3	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	Openness 4	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree

	Openness 5	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	Openness 6	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	Openness 7	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	Openness 8	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
Team Member Listening Environment	TLE 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	TLE 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	TLE 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree

	TLE 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	TLE 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	TLE 1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
Supervisor Listening Environment	SLE1	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	SLE 2	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	SLE 3	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	SLE 4	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree

	SLE 5	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
	SLE 6	1 = strongly agree, 2 = agree, 3=somewhat agree, 4 = neither agree or disagree, 5 = somewhat disagree, 6 = disagree, 7 = strongly disagree
Gender of Respondent	Gender	1 = Male 2 = Female
Age of Respondent	Age	1 =18 to 24 2 = 25 to 34 3 = 35 to 44 4 = 45 to 54 5 = 55 to 64 6 = 65 to 74

Appendix F: Table 4.16: Multiple Comparisons between Openness to Change and Tenure - Tukey HSD Test

(I) How long have you worked at this organisation?	(J) How long have you worked at this organisation?	Mean Difference (I-J)	Std. Error	Sig.
Less than 6 months	More than 6 months and up to 1 year	.00000	4.42048	1.000
	More than 1 year and up to 2 years	-2.87273	4.12961	.993
	More than 2 years and up to 5 years	-1.17978	4.03957	1.000
	More than 5 years and up to 10 years	-2.24348	4.00613	.998
	More than 10 years and up to 20 years	-4.24793	4.00043	.939
	More than 20 years	-6.29825	4.12142	.728
More than 6 months and up to 1 year	Less than 6 months	.00000	4.42048	1.000
	More than 1 year and up to 2 years	-2.87273	2.51750	.915
	More than 2 years and up to 5 years	-1.17978	2.36691	.999
	More than 5 years and up to 10 years	-2.24348	2.30939	.960
	More than 10 years and up to 20 years	-4.24793	2.29948	.517
	More than 20 years	-6.29825	2.50405	.156
More than 1 year and up to 2 years	Less than 6 months	2.87273	4.12961	.993
	More than 6 months and up to 1 year	2.87273	2.51750	.915
	More than 2 years and up to 5 years	1.69295	1.76502	.962
	More than 5 years and up to 10 years	.62925	1.68709	1.000
	More than 10 years and up to 20 years	-1.37521	1.67350	.983
	More than 20 years	-3.42552	1.94506	.575
More than 2 years and up to 5 years	Less than 6 months	1.17978	4.03957	1.000
	More than 6 months and up to 1 year	1.17978	2.36691	.999
	More than 1 year and up to 2 years	-1.69295	1.76502	.962

	More than 5 years and up to 10 years	-1.06370	1.45283	.991
	More than 10 years and up to 20 years	-3.06816	1.43703	.334
	More than 20 years	-5.11847	1.74577	.054
More than 5 years and up to 10 years	Less than 6 months	2.24348	4.00613	.998
	More than 6 months and up to 1 year	2.24348	2.30939	.960
	More than 1 year and up to 2 years	-.62925	1.68709	1.000
	More than 2 years and up to 5 years	1.06370	1.45283	.991
	More than 10 years and up to 20 years	-2.00446	1.34016	.747
	More than 20 years	-4.05477	1.66695	.187
More than 10 years and up to 20 years	Less than 6 months	4.24793	4.00043	.939
	More than 6 months and up to 1 year	4.24793	2.29948	.517
	More than 1 year and up to 2 years	1.37521	1.67350	.983
	More than 2 years and up to 5 years	3.06816	1.43703	.334
	More than 5 years and up to 10 years	2.00446	1.34016	.747
	More than 20 years	-2.05031	1.65319	.878
More than 20 years	Less than 6 months	6.29825	4.12142	.728
	More than 6 months and up to 1 year	6.29825	2.50405	.156
	More than 1 year and up to 2 years	3.42552	1.94506	.575
	More than 2 years and up to 5 years	5.11847	1.74577	.054
	More than 5 years and up to 10 years	4.05477	1.66695	.187
	More than 10 years and up to 20 years	2.05031	1.65319	.878