

Examining Change Process Perceptions and Proximal Readiness for
Organisational Change: The Moderating Effect of Distal Readiness

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Abstract

Readiness for change is considered a major determinant of people's support for or resistance to an organisational change and is therefore a topic explored throughout change management literature. This study contributed to change readiness literature by separating its distal (organisation-centric) and proximal (person-centric) elements and investigating the relationships these variables had with a contextual variable within the organisation, employee perceptions of general change management processes. A widely accepted measure of change readiness was used in this study which incorporated four dimensions: appropriateness of the change, management support for the change, change-related self-efficacy and personal valence of the change. Each of these dimensions were measured and analysed individually. Data was collected at two time points before and after a systems change within a large New Zealand financial institution, with a final sample of 42 employees being matched between the two time points. Regression analysis confirmed significant positive relationships between the two distal elements of readiness (change appropriateness and management support) and self-efficacy, while change process and change appropriateness were positively related to personal valence. Additionally, change appropriateness was found to moderate the relationship between change process and personal valence in the manner expected. A significant interaction was also found for change appropriateness and change process in predicting self-efficacy however in a slightly different direction to that predicted. Outcomes of the study were also discussed in terms of their theoretical and practical implications and recommendations were made for future research into the topic.

Introduction

Change is an inevitable and integral part of organisational life within today's fast-paced business environment. Organisations across industries routinely attempt strategic change in order to survive or gain competitive advantage (Barney, 1986). Factors contributing to the necessity of organisational change include market competition, workforce changes, an increasingly volatile economy, technological innovations, and rising customer expectations, placing employers under immense pressure to effectively handle required adjustments (Rousseau & Tijoriwala, 1999; Self & Schraeder, 2009). To pre-empt the anticipated negative impact of these factors, strategies are devised for organisational redesign to ensure alignment of organisational strategies and goals with the current social, environmental or economic climate (Self & Schraeder, 2009). However, many attempted implementations do not achieve the desired results – it has been suggested that up to 70% of all major change initiatives fail (Beer & Nohria, 2000; Cartwright & Schoenberg, 2006; Meaney & Pung, 2008). Hofer and Schendel (1978) considered change implementation to be a game of high stakes, contending that successes may reinvigorate a business while failures can contribute to its demise.

A disconnect is apparent between research and practice when analysing the reasons for implementation failure with differing approaches often taken to pinpoint potential obstacles to change. Change management research recommends that the change process is deconstructed to its lowest common denominator, the individual. Change recipients are all unique and as such will respond to change and aspects of the change in different ways. In practice, the individuals affected by the change are often overlooked with organisations tending to analyse from a business standpoint. This lack of focus on the individual can result in factors important to successful implementation and functional organisational life such as employee attitudes being overlooked, often resulting in a sense of detachment between upper management and their followers.

Individuals within organisations are affected by leaders whose job it is to influence followers to achieve a common goal. Implementation success or failure has been found to be largely the upshot of leadership capability (Ireland & Hitt, 1999), particularly the ability to drive and manage people through change (Kaplan & Norton, 2001). A leader's role in a changing organisation encompasses many areas, for example, leaders can influence others by actively adjusting organisational systems to aid transition, or by providing first hand assistance and motivation for recipients through clear communication (Greenwood & Hinings, 1996). In an attempt to gain a better understanding of approaches to leading successful change implementations, extensive research has been undertaken and points to the importance of employee readiness for change (Armenakis & Bedeian, 1999).

To understand a complex concept such as change readiness in organisations, it must first be clearly defined. The most commonly cited definition was provided by Armenakis, Harris, & Mossholder, (1993) describing readiness for change as "beliefs, attitudes and intentions regarding the extent to which changes are needed and the organization's capacity to successfully undertake these changes" (pg. 681). Holt, Armenakis, Harris and Feild (2007a) built on this definition, describing readiness for change as a multi-dimensional individual attitude that is influenced simultaneously by (i) the change content (what is being changed), (ii) the change process (how the change is being implemented) and (iii) the individuals involved (personal characteristics of change recipients). Readiness for change reflects the extent to which an individual is cognitively and emotionally inclined to accept, embrace and adopt a particular strategy to deliberately alter the status quo (Holt et al., 2007a). Based on this integrated definition, Holt, Armenakis, Harris and Feild (2007b) developed a scale to measure readiness for change involving four separate dimensions (i) appropriateness of change, (ii) management support for change, (iii) individual change self-efficacy and (iv) personal valence of the change. These dimensions are how readiness for change will be

conceptualised in this study with the unique contribution of each being discussed in an upcoming section.

Readiness is a major determinant of recipients' engagement with a change initiative. Armenakis, et al., (1993) labelled it as "the cognitive precursor to the behaviours of either resistance or support for a change effort" (pg. 681). Readiness may manifest itself in a number of ways through the behaviour of employees. Employees who feel as if they are ready for change display this by enacting pro-change behaviours while those low in change readiness may behave in ways that can sabotage a change. For example, an employee high in change-readiness is likely to actively cooperate with change-efforts and persevere in the face of difficulty, while a colleague low in readiness would be more standoffish regarding the change and be more predisposed to failure of implementation (Armenakis & Bedeian, 1999). The behaviour of change-ready employees can also extend to other recipients of the change. Pro-change behaviours include championing the change through providing direction and example for other people and supporting others in the change process (Armenakis & Bedeian, 1999).

A model developed by Oreg, Vakola and Armenakis (2011) displayed clearly both the work-related and personal consequences of levels of recipient change readiness. The authors identified job satisfaction, organisational commitment and job performance as the most commonly reported work-related consequences of change readiness, while wellbeing, health, and withdrawal levels were the dominant personal consequences reported. These established consequences denote readiness as a concept integral to achieving successful change as if any are lacking, changes will likely not be deemed successful (Jones, Jimmieson, & Griffiths, 2005). The majority of changes are aimed at increasing employee performance either directly or indirectly through targeting specific work-related attitudes. In most cases, changes will incorporate goals pertaining to these consequences as they have all been proven to affect the

bottom line of an organisation (Oreg et al., 2011). Therefore, if these areas are lacking the organisation is unlikely to achieve what it desired from the change.

It is inevitable that organisations will be required to undergo change at some level, changes, no matter what their scale, influence employees greatly as their day to day work is impacted. If recipients lack the required competencies (a feature of low readiness), changes may act as a source of stress, often putting them out of their comfort zone. To stand themselves in good stead when it comes to making changes, organisations require information regarding how change ready their staff are and if required, how to improve this level. Understanding antecedents to change readiness may provide organisations with resources to ensure employee change readiness. Clarification is required regarding the effect of existing aspects of the organisational environment on employee reactions to a planned change. Hence, this study will explore the role of contextual elements within organisations — in particular employee views of the manner in which changes are typically managed — in influencing employee change readiness perceptions for an ongoing change. The exploration of these associations will contribute to change management literature while results attained are likely to provide information to organisations planning change as to variables which may influence the readiness of their employees.

Change Readiness

The concept of readiness for change will be further explored by separating its distal and proximal facets. The four dimensions of readiness for change identified by Holt et al., (2007b) comprise two facets that are person-centric and pertain to readiness from an individual standpoint (proximal facets: change self-efficacy and personal valence), and two facets that ascertain employee perceptions of the organisation's level of readiness (distal facets: change appropriateness and managerial support). Change readiness can therefore be

conceptualised as a process wherein a positive appraisal of the change in the specific context of an organisation (appropriateness and managerial support) may represent one of the contextual factors influencing recipients' views regarding their competence to address change requirements, and the benefits change can bring about at a personal level (self-efficacy and personal valence). Distinguishing distal from proximal change readiness facets may assist organisations undergoing change by providing valuable insight into the mechanisms underlying change readiness, and approaches to fostering readiness in recipients. The conceptualisation of change readiness used in this study is that developed by Holt et al., (2007b) who described it as a multi-dimensional construct encompassing four dimensions: change-appropriateness, manager support for change, self-efficacy and personal valence. The current study will analyse these dimensions on an individual basis as opposed to combining them to create a readiness score allowing the individual contributions of each dimension to be investigated. These dimensions are each defined and discussed in terms their determinants and effects.

Holt et al., (2007b) considered recipient perceptions of the appropriateness of a change for the organisation to be a determining factor of an individual's level of readiness for change. Change appropriateness describes employees' perception of the extent to which a proposed change is suitable to organisational needs and is consistent with the organisation's vision (Armenakis & Bedeian, 1999). Appropriateness for change is a concept that depends on employee perceptions of need for the change and the valence of the change to the organisation (Holt et al., 2007b). Perception of need for change is essentially employee's beliefs regarding the legitimacy of the change as contributing to organisational advancement, this concept is also known within change management literature as discrepancy creation (Armenakis & Harris, 2002). Organisational valence is the extent to which employees feel the change will benefit the organisation (e.g. through increased efficiency).

In order to achieve readiness for change, recipients must perceive that the change content is appropriate for the organisation in question. If employees affected by the change consider it to be consistent with the needs and vision of the organisation, they are more likely to embrace it (Cole, Harris & Bernerth, 2006). Conversely, should a change not be deemed appropriate by employees, readiness is less likely to be achieved and individuals will be less likely to display pro-change behaviours (Armenakis & Bedeian, 1999). Individuals who buy into a change are more inclined to engage in the change process (Avey, Wernsing & Luthans, 2008). If a change makes sense to an individual on an organisational level then they will be more willing to alter their own behaviour to achieve its goals, thus achieving higher levels of change readiness.

Another factor that determines an individual's readiness for change is the perception that the organisation's leadership supports the change. Perceptions of managerial support for change have a major influence on the likelihood of recipients accepting and embracing organisational change. Recipients who feel that a changing organisation's leadership team is committed to, competent to lead, and supportive of the implementation of a planned change, are more likely to feel ready for it. According to Halverson (2004), emotional contagion can occur with the attitudes and beliefs of leaders being transferred to followers, therefore it is likely that perceived readiness in a leader would encourage followers to also feel more ready for change. Cunningham et al., (2002) reported that change recipients who perceive management as supportive were more receptive to proposed changes and willing to engage in pro-change behaviours. Conversely, employees who perceive their working environment (including their leaders) as unsupportive of the change, hold cynical views about the upcoming transformation and its value, which lead to negative behaviours and ultimately the rejection of change initiatives (Martin, Jones & Callan, 2005).

Organisational change is often a time of elevated uncertainty and stress for recipients. It is therefore of great importance that positive, trustworthy relationships exist between leaders and followers. Dirks and Ferrin (2002) posited that positive leader-follower relationships can influence organisation-based attitudes and intentions, factors integral to building trust were follower perceptions of both the leader's behaviour and character. The presence of competent leaders who are supportive of change contributes to recipients' change readiness through the fostering and building of trust and confidence (i) in the legitimacy of the change and (ii) that leaders will assist in navigating change. In times of change, successful leaders are those who are perceived as charismatic and portray transformational capabilities by attempting to relate to followers and developing them to achieve successful post-change goals. Followers undergoing change who trust leaders are more likely to accept the accuracy of information they receive and buy in to decisions made by the leader – both key antecedents of change readiness. Contrastingly, belief that a leader is not trustworthy may be a source of psychological distress for followers and is likely to affect key change attitudes.

Changes within a work environment are enacted through the revision of organisational goals, strategic direction, roles, and key performance indicators. These alterations mean employees often have to upskill and substantially change work-related behaviours in order to achieve strategic goals, often resulting in increased sense of uncertainty regarding one's competence and the work environment. This uncertainty leads to a new set of workplace stressors in the form of role stress (e.g. role-ambiguity, role-overload, and role-conflict), career stress (e.g. threat to career path, threat to financial wellbeing), or personal stress (e.g. loss of power, prestige) (Oreg, 2006; Oreg et al., 2011). The possible negative effects of these stressors further dictate the need for individuals to exhibit high levels of change readiness. High levels of stress in individuals and its associated negative

workplace (e.g. lessened job performance) and personal consequences (e.g. health issues) can be a massive obstacle to successful change implementation (Oreg, 2006). Identifying triggers within the individual that allow them to react to change in a positive manner (change-readiness) rather than perceiving it as a stressor is therefore crucial when planning a change.

Organisational change literature has focussed heavily on individual differences and found them to act reliably as antecedents to positive attitudes to change – none more so than self-efficacy (Oreg et al., 2011). Self-efficacy is a key element in Bandura's (1977a) theory of social learning and refers to an individual's belief in his or her capability to execute an action needed to meet the demands of a situation. Bandura (1977b) contended that self-efficacy is context-specific, a measurement of mastery expectations in reference to a specific situation or the performance of a specific behaviour. Therefore, in the context of organisational change, self-efficacy reflects an employee's perceived ability to function well on the job, while managing the demands of a changing work environment (Ashford, 1988). Employees who possess high levels of change-related self-efficacy are better equipped to cope with change-related stressors, and for this reason are more likely to persist in their efforts to engage with an organisational change process (cf. Bandura, 1977b). Contrastingly, employees who are unsure of their ability to respond to the demands of change are likely to focus on their feelings of incompetence, which will be accompanied with feelings of distress and a failure to cope with the situation (Bandura, 1977a).

Change initiatives cannot be implemented effectively without change recipients' willingness to change, and to show support for the suggested organisational change program (Vakola, 2013). Change-related self-efficacy has been the topic of copious change management research and has consistently been found to contribute positively to the acceptance and successful implementation of change initiatives. Oreg et al. (2011) linked higher levels of perceived change efficacy with more effective handling of job

responsibilities. This association is crucial when considering the role of efficacy on change readiness as organisational change strategies often result in new roles and responsibilities for employees. If the recipient perceives these changes as manageable, they are more likely to be positive about and be involved in the process. Cunningham et al., (2002) found that those with more confidence in their own ability to cope with a change are in turn more likely to participate in organisational redesign strategies.

Predicting change-specific self-efficacy is challenging for researchers and practitioners alike, largely due to the unique nature of every change within organisations. The plethora of variables affecting employee reactions to the content of the change and the process with which it is implemented make pinpointing the determinants of self-efficacy difficult. Transferring literature on generalised self-efficacy to a change-context is a logical approach to forming hypotheses in this area. According to Bandura (1977b; 2012) general self-efficacy can be fostered in four ways (i) mastery, (ii) social modelling, (iii) social persuasion and (iv) physiological states. Mastery, social modelling and social persuasion seem to be the three means of fostering general self-efficacy most related to efficacy in a change context (Gist, 1987). Mastery is linked to the concept that performance accomplishments influence an individual's perspective on their abilities, with successful experiences leading to greater self-efficacy and failure weakening self-efficacy. Social modelling refers to the observation of someone perceived similar to the individual successfully performing the same task, thus increasing beliefs that you can imitate and master a similar activity. Social persuasion is when others provide encouragement and persuasion that an individual can successfully perform a task, thus assisting in overcoming feelings of self-doubt. Individuals who have successfully navigated previous changes and who have networks around them providing support and reassurance that skills required by the change are achievable for them are therefore likely to feel efficacious regarding the change.

Furthermore, Barsade (2002) reported a significant positive emotional contagion effect within an organisational context, supporting the idea that individual attitudes and beliefs can transfer between members of a shared environment. Combining this indication with the role leaders can play in influencing followers suggests that a ripple effect may occur where self-efficacy, stemming from management, spreads throughout members of the organisation.

Alongside self-efficacy, personal valence for a change has been widely identified as a determinant of recipients' levels of change readiness. Rafferty, Jimmieson and Armenakis (2013) describe personal valence pertaining to change as an individual's evaluation of the benefits or costs of a change for his or her job and role. Holt et al., (2007b) label personal valence in the context of change as a subjective appraisal of the psychological value assigned by a recipient to a proposed change. Those who perceive change initiatives as having positive valence (i.e., to be personally beneficial) are more likely to buy into an organisational transformation (Holt et al., 2007b). Contrastingly, if a recipient does not foresee benefits from the change, then it is not likely that he or she will exhibit change readiness (Rafferty et al., 2013). Sonenshein and Dholakia (2012) reinforced this idea, stating "the positive valence of benefits creates positive arousal that individuals interpret as enabling performance" (pg. 8). The concept of valence acting as an enabler to change was supported by Fredrickson (2001) who argued for the broaden-and-build theory of positive emotions – positive emotions contribute to the psychological resources of individuals, which in turn enhance the capacity to act.

It is clear from change-readiness literature that perceptions of personal value regarding a change are integral to achieving readiness, what is less clear however are the factors within the change process that influence personal valence. What makes this difficult is the idea of ascribing general rules and influences to a concept that is inherently unique and personal to each individual. Change recipients are unique with respect to their individual

differences and job/role content, and therefore will exhibit differing valence perceptions. Even when two individuals perceive a change as having similar valence (e.g. positive), the magnitude of this positive perception may vary. Further, change recipients ascribe positive or negative valence to a multitude of change features (e.g., fit between change goals and personal values, potential of the change to solve an important organisational problem that is linked to their job role).

It is possible that, similar to change-efficacy, change-specific personal valence may be socially influenced. As with the other person-centric dimension of change readiness, a positive contagion effect may occur whereby individuals recognising others within the work environment – particularly managers – perceiving value in the change may be prompted to find areas of the change to be valuable (cf. Barsade, 2002). It is also possible that the personal value recipients ascribe to a change can be affected by their perceptions of organisational valence of the change. The idea that individuals may perceive aspects of a change on an organisational level which then translates to attitudes or beliefs about the change on a personal level was established by Visagie and Steyn, 2011. Organisational valence has already been described as one of the aspects of a change individuals consider when ascertaining its appropriateness. Therefore those who perceive a change as highly appropriate for the organisation may have those perceptions of organisational valence positively affect the level of personal value they ascribe to the change.

Change Process Perceptions and Change Readiness

The influence of contextual variables on the readiness of change-recipients is a growing area within scholarly literature. Research has indicated that contextual variables can have a significant influence on employee reactions to change, one in particular is the perception of how previous changes have been handled by the organisation (Van Dam, Oreg & Schyns,

2008). The concept that previous experience is linked to future attitudes and behaviour is intertwined with social learning theory. Bandura (1977a) stated that people learn attitudes from their environment through the process of observation or through forming associations between emotional responses and certain stimuli. Typically, classical conditioning facilitates this process in that individuals learn to associate stimuli with the emotional responses they elicit. This phenomenon is also valid in the context of change, for example if an organisation has a history of change perceived as successful by employees, these employees are likely to form a positive attitude towards change, making them likely to react favourably to future changes. Contrastingly, organisations which have handled past changes poorly will likely find employees perceive change more negatively. Doyle, Claydon and Buchanan (2000), affirmed this idea reporting that 96% of change-recipients surveyed perceived previous organisational changes they had experienced as positive learning experiences. It would appear, therefore that establishing effective change management strategies contribute significantly to employee reactions to future changes.

Employees' reactions to change have been widely linked with characteristics of the change process (Dent & Goldberg, 1999; Oreg, 2006). The provision of timely information detailing aspects that affect individuals and the organisation post-implementation, and enabling bidirectional communications, comprise change management techniques deemed integral to achieving successful implementation. According to Wanberg and Banas (2000), detailed information as well as realistic and supportive communication during change is associated with positive reactions to change and greater change-acceptance. Using these change-management techniques is likely to increase trust in management while lowering levels of change-related anxiety and uncertainty (Bordia, Hobman, Jones, Gallois, & Callan, 2004). Correspondingly, lack of communication during implementation may increase

uncertainty, a key source of recipients' difficulties during change implementation (Schweiger & DeNisi, 1991).

Organisations must also provide opportunities for recipients to address change-related skill-gaps as well as acknowledge and celebrate the achievement of change goals, for change to be viewed positively by recipients. Increases in skill variety, and feedback on one's performance were linked with increased readiness for change (Weber & Weber, 2001). The provision of training opportunities in change-related areas is likely to increase recipients' sense of competence in relation to the change and therefore their engagement with the change-process. Steel and Lloyd (1988) contended that this approach may contribute to recipients' sense of competence, trust in leadership and commitment to the process. Providing feedback and recognition to employees undergoing change is likely to reinforce a sense of participation and is another example of bidirectional communication. Constructive feedback on performance from managers conveys organisational support to recipients, which may lead to positive attitudes towards the organisation and the change through a reciprocation effect (Eisenberger, Armeli, Rexwinkel, Lynch & Rhoades, 2001). Similarly, recognising and rewarding change recipients who achieve change goals can assist in building positive attitudes towards change and may act as a form of reinforcement; associations will be built between the recognition and the change, leading to recipients perceiving change within the organisation as positive (Bandura, 1977a).

The Present Study

It is important for researchers and practitioners alike to understand the concept of readiness for change and how best to foster it in employees, as this gives leaders within changing organisations an opportunity to plan successful implementations. Research on change readiness has uncovered its contributing factors which include both organisational variables

and individual differences. While the effects of individual differences – particularly change-efficacy and change valence – on achieving employee readiness for change are undeniable, research highlighting them does not necessarily provide assistance for organisations in raising existing employee readiness levels. Due to its strategic sense, it is instead suggested that the environment of an organisation be shaped accordingly (e.g., creating organisation-level and managerial preparedness) as it is expected that this will have an impact on change readiness at a proximal level (i.e. change related self-efficacy and personal valence). Van Dam et al., (2008) found daily organisational context to have a direct link with the change-related attitudes and behaviours of recipients. Change context variables, particularly leadership approaches and organisational climate are likely to affect the way changes are implemented, therefore how employees react to change.

The current study aims to test whether and how the interplay of organisational factors (change process perceptions and distal facets of readiness for change) influences change self-efficacy and valence. Relationships have been established in previous research between aspects of the change process and the dimensions of employee readiness however it is unknown whether perceptions of previous change processes carry over to affect perceptions of a current change being implemented. The present study investigates change readiness in terms of its distal and proximal factors, which constitutes a unique and novel approach, and will contribute to new knowledge on these variables in the context of organisational change.

Based on the review of the literature above, the research hypotheses are as follows:

Hypothesis 1: Recipient perceptions of change processes will be significantly and positively related to self-efficacy.

Hypothesis 2: Recipient perceptions of change processes will be significantly and positively related to personal valence.

Hypothesis 3: Recipient perceptions of managerial support for change will be significantly and positively related to self-efficacy.

Hypothesis 4: Recipient perceptions of managerial support for change will be significantly and positively related to personal valence.

Hypothesis 5: Recipient perceptions of change appropriateness will be significantly and positively related to self-efficacy.

Hypothesis 6: Recipient perceptions of change appropriateness will be significantly and positively related to personal valence.

Along with the main effects hypothesised between the variables, the research overviewed suggests a more complex relationship between general change processes, distal, and proximal elements of readiness. More specifically, the present study proposes to examine how the interaction of employee views on past change management with perceptions of current change appropriateness and senior leadership support for the change, affect employee perceptions change-efficacy and personal valence. Although this potential moderating effect has not been researched before, it is thought to be worth investigating. In the context of organisational change, the belief that an upcoming change is supported by leaders and is appropriate for the organisation may help enhance the relationship between perceptions of previous change processes and current levels of change self-efficacy and personal valence.

The level to which change recipients perceive that management supports a planned change can affect their beliefs about their own role in the change. Emotional contagion may occur in that the support for the change perceived in superiors can transfer to followers and result in increased belief in ability to perform post-implementation (self-efficacy) and increased value ascribed to aspects of the change (personal valence) (Barsade, 2002; Luthans, Norman & Hughes, 2006). Perceptions of the manner in which previous changes were

handled within the organisation are also likely to affect individuals' change-related self-efficacy and personal valence. Bandura's (1977b) social learning theory is the concept that past experience impacts beliefs and attitudes, therefore recipients whose past experience with change within the organisation is perceived as positive are more likely to perceive new change as positive. Similarly, negative perceptions of previous changes are likely to trigger a negative reaction to a proposed change. It is therefore expected that the relationship between change recipients' views on how previous changes have been managed within the organisation and the proximal elements of change-readiness (self-efficacy and personal valence) will be strengthened when recipients perceive that management is highly supportive of the change.

Hypothesis 7: Change process perceptions and perceptions of managerial support for an upcoming change will be moderated by change self-efficacy. The combination of high levels of managerial support and change process perceptions will be related to higher levels of change efficacy than lower levels of managerial support and change process perception.

Hypothesis 8: Perceptions of managerial support for change will moderate the relationship between change process and personal valence. The combination of high levels of managerial support and change process perceptions will be related to higher levels of personal valence than lower levels of managerial support and change process perception.

Change appropriateness is the extent to which a proposed change aligns with organisational needs and the organisation's vision. Employees who perceive a change as appropriate for the organisation are more likely to feel more positively about their role in its implementation, leading to higher reports of change related person centric factors such as

self-efficacy and personal valence (Cole et al., 2006). These proximal factors may also be affected by individuals' perceptions of previous change related experiences within the organisation in accordance with Bandura's (1977b) social learning theory. It is therefore expected that the relationship between change recipients' views on how previous changes have been managed within the organisation and the proximal elements of change-readiness (self-efficacy and personal valence) will be strengthened when recipients perceive the current change as appropriate for the organisation.

Hypothesis 9: Perceptions of change appropriateness will moderate the relationship between change process perceptions and self-efficacy. The combination of high levels of change appropriateness and change process perceptions will be related to higher levels of change efficacy than lower levels of change appropriateness and change process perception.

Hypothesis 10: The relationship between change process and personal valence will be moderated by perceptions of change appropriateness. The combination of high levels of change appropriateness and change process perceptions will be related to higher levels of personal valence than lower levels of change appropriateness and change process perception.

Method

Intervention

Adjustments were carried out within one of New Zealand's major banks where recipients experienced a core systems change. This involved adjustments to how customer information was loaded, recorded in the computer system and also how data was interpreted.

Additionally, recipients experienced a transition from multiple specialist roles within branches to two generalist roles – one primarily centred on lending. Instead of specialising in a specific area of business, employees were required to understand and provide services spanning a broad range of business aspects. Technical and non-technical training was required for recipients of this change. In enacting these adjustments, the organisation hoped to improve: clarity of information, efficiency of work, employee skill repertoire and ultimately financial performance.

Participants and Procedure

This study aimed at gathering individual responses to organisational change before and slightly after implementation of a large-scale change. Data was collected in the retail sector of a large financial institution in New Zealand. Time 1 (T1) data used was collected as part of the organisation's bi-annual staff survey, which included scales pertaining to leadership, communication, and change climate, among other variables of interest. Data was collected online with a link to the survey being provided to participants via email, active for a period of three weeks. Surveys were confidential, but not anonymous. Researchers identified participants using a unique reference code to track their responses over time and across surveys. Data used in Time 2 (T2) was collected five months following the T1 survey using the same method. Participants were informed that this was a supplemental data collection, and that information gathered would be linked to their previous responses for research

purposes. Research-related information was provided as a part of a consent form to be completed before beginning the survey. Referring to Appendix A, each participant was made aware of the aims, procedure and use of data for each survey, assured confidentiality of identity, explained informed consent and provided contact details of the researchers. Surveys at both time points were hosted by Qualtrics' Survey Software website.

A total of 204 employees were invited to participate in the study, with 66 volunteering to complete the survey at (T2). The final sample included 42 participants matched between T2 and available T1 data. This equates to a response rate of 32% at T2 with an overall response rate of 21%. This response rate is not dissimilar from main stream organisational change literature (Moates, Armenakis, Gregory, Albritton & Field, 2005). One participant declined to provide demographic information. Of the remaining 41 participants 71% were female and 29% were male with a mean age of 42.51 years ($SD = 10.55$). The average tenure was 3.83 years ($SD = 3.64$). 8 participants held managerial positions within the organisation whilst 33 were non-managers.

Measures

Data was collected at two time points, employee perceptions of general change management processes within the organisation were measured at T1, while readiness for change was measured at T2. At T1, one seven item scale was used to measure employee perceptions of change processes (See Appendix B). At T2, four scales with a total of 25 items were used to measure the dimensions of change readiness – appropriateness of change, management support for change, self-efficacy and personal valence (See Appendix C). Additional demographic information was attained using four questions relating to age, sex, tenure and position within the organisational hierarchy. The recommendation of Paterson, Green and Cary (2002) was adhered to by prefacing each scale with a short paragraph explaining what

each particular scale was intended to measure and the experiences participants should be mindful of when responding to items in that particular scale. Prefacing paragraphs were added to emphasise certain aspects of the change process as well as to allow researchers to adapt the scales to the specific context of the study. Responses for all measures were recorded on a 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree.

Change Process. Change process perceptions were assessed with 7 items adapted from the change process scale specified by Ford and Greer (2006). The scale was developed to measure employee perceptions of the manner in which the organisation generally handles the process of change. Ford and Greer (2006) had originally separated change process into five separate variables: goal setting, skill development, feedback, management control and implementation success. The change process scale developed included three items from the skill development scale (one adapted), three from the feedback scale and one item from the goal-setting scale. Due to this unique amalgamation of items, no reliability data had been previously calculated although coefficient alphas for sub-scales in the original version ranged from .82 to .84 (Ford & Greer, 2006). A sample item for the scale was *“Team members are kept informed about the ongoing status of the change processes”*. Participants reporting a high score indicated a positive perception of the general change processes undertaken by the organisation.

Readiness for Change. Readiness for change was measured along four dimensions using the scale developed by Holt, Armenakis, Field and Harris (2007b). The scale was designed to gauge readiness for organisational change at an individual level. The coefficient alphas reported for the dimensions from previous research were .94 for change appropriateness, .87 for management support, .82 for change efficacy, and .66 for personal valence (Holt et al., 2007b). A sample item for the appropriateness dimension (10 items) was: *“There are legitimate reasons for us to make this change”*; for the management support

subscale (6 items) “*Our organisation’s top decision makers have put all their support behind this change effort*”; for change-efficacy (6 items) “*I have the skills that are needed to make this change work*”; and for personal valence (3 items) “*This change will disrupt many of the personal relationships I have developed*”. Items were adjusted to make them context specific e.g. the word organisation was replaced with the organisation’s name.

Analyses

All statistical procedures and analyses were conducted SPSS version 22 for Windows operating system. Exploratory factor analyses (EFAs) were conducted to ascertain the dimensionality of the scales and their suitability for the current study. Reliability analyses were then carried out for each of the five scales included in the study to attain descriptive statistics and measures of internal reliability – Cronbach’s alphas (Cronbach, 1951; Hinkin, 1995). As an additional measure of internal consistency, corrected item total correlations were examined to obtain an understanding of each item’s correlation with other items in that scale. The findings of these analyses will be outlined in the Results section.

The hypotheses were tested using moderated multiple regression. Multicollinearity is a potential issue whenever using this analysis technique as well as when analysing same source responses. Cohen, Cohen, West and Aiken (2003) defined this phenomenon as the existence of substantial correlations among a set of variables. When present in regression analyses multicollinearity can make coefficients unstable and difficult to interpret, its potential influence was kept in mind when treating data and interpreting analyses. A correlation analysis was conducted to examine the relationships between predictors. Prior to analysis, the independent and moderator variables were centered by subtracting the mean score from the raw score for each participant. Using these centered values, interaction terms were created for change process and change appropriateness, as well as change process and

manager support. This was done by multiplying the two centred predictor variables. Using centered terms in analyses has the additional benefit of improving the interpretability of the coefficients (Field, 2009).

To investigate the possible confounding effects of demographic variables - particularly manager status - on results, a series of independent sample t-tests were conducted to identify any differences in response based on whether a participant was a manager or a non-manager. The outcomes of these analyses are discussed in the Results section.

Due to the study's small sample size ($n=42$), a post-hoc power analysis was conducted using the G*Power software (Version 3.1). This analysis was appropriate for computing the statistical power of a study in accordance with the relevant alpha value, sample size, and effect size. The small sample size, small-medium effect size ($r=.15$) and the desire to achieve acceptable levels of statistical power dictated the need to increase alpha to .10 for the multiple regression analyses. The final power value calculated of 0.64 was below the commonly accepted level of 0.8, although was deemed appropriate considering the small sample (Noordzij et al., 2010).

Results

Measurement Properties

Prior to hypothesis testing, exploratory factor analyses were conducted for all scales utilised in the study to investigate dimensionality. Each of the 5 scales loaded on a single factor (loadings above .4) (see Appendix D) (Field, 2009). Additionally, the second largest factor in all scales analysed fell below an eigenvalue of 1 making the decision congruent with the guidelines of Kaiser (1960) who recommended that only factors with an eigenvalue greater than 1 be retained for interpretation.

Reliability analyses were then conducted to investigate the internal consistency of the six scales used in the study. Referring to Table 1, scales displayed good to excellent Cronbach's alpha levels ranging from .84 to .94, consistently higher than the minimum level of .7 outlined by Cronbach (1951).

Descriptive Statistics

Descriptive statistics were calculated for all variables. Referring to Table 1, participants reported positive perceptions across all variables with mean responses to the 7-item scales ranging from 5.30 for self-efficacy to 6.10 for change appropriateness. Change process perceptions, management support and personal valence displayed means of 5.48, 5.51, and 5.97 respectively. The high means reported for all statistics indicate a general sense of optimism within the organisation towards the change and its management. This implies a belief among participants that the organisation has general processes in place which facilitate successful change and that employees are positive about the specific change from both personal and organisational perspectives. Two variables showed moderate-high agreement among participants with change process perceptions and personal valence displaying standard

deviations of .89 and 1.03 respectively – very close to one scale point. Management support and self-efficacy displayed slightly lower standard deviations of .46 and .53 respectively.

The correlation matrix for all scales and demographic variables is presented in Table 1. As Table 1 shows, change process perceptions at T1 was significantly and positively related with personal valence ($r = .31, p = .04$) at T2. Change appropriateness and manager support - the two distal elements of readiness displayed a significant, positive correlation with each other ($r = .51, p < .01$). The relationships between scales and demographic variables were also investigated with gender displaying a significant positive correlation with change process perceptions ($r = .32, p = .03$). Manager status was the demographic variable displaying the most significant relationships with scale-measured variables. It displayed significant, positive correlations with management support ($r = .31, p = .04$), self-efficacy ($r = .26, p = .08$), and personal valence ($r = .28, p = .06$).

To investigate whether or not participants' status within the organisation was related to their scores on the survey, a series of independent sample t-tests were conducted. There was a significant difference in responses to the management support scale for non-managers ($M = 5.50, SD = .39$) and managers ($M = 5.81, SD = .23$), $t(43) = -2.14, p = .04$. Managers gave significantly higher responses to items pertaining to the level of managerial support they perceive regarding the ongoing change. Similarly there were significant differences uncovered between non-managers' and managers' responses to change self-efficacy and personal valence. Non-managers' ($M = 5.20, SD = .58$) responses were significantly lower than managers' ($M = 5.58, SD = .33$) for self-efficacy, $t(42) = -1.89, p = .04$. Managers ($M = 6.58, SD = .58$) also provided significantly higher responses for the personal valence scale than non-managers ($M = 5.79, SD = 1.15$), $t(42) = -1.77, p = .05$. Given these significant differences, managerial status was included as a control variable in the regression analyses.

Table 1.

Correlation Matrix for all Variables

Scale	Mean	SD	1	2	3	4	5	6	7	8	9
1. Change Process	5.48	.89	(.92)								
2. Management Support	5.51	.46	.09	(.84)							
3. Appropriateness	6.10	.72	.10	.51***	(.94)						
4. Self-Efficacy	5.30	.53	.13	.38***	.44***	(.85)					
5. Personal Valence	5.97	1.03	.31**	.38***	.56***	.34**	(.90)				
6. Age (years)	42.41	11.00	-.08	-.12	-.18	-.24	-.20				
7. Tenure (years)	3.94	3.86	-.12	-.02	-.09	-.14	-.23	.59***			
8. Gender	-	-	.32**	-.08	-.06	.14	-.02	.03	-.02		
9. Manager Status	-	-	.07	.31**	.22	.26*	.28*	-.02	-.24	.25	

Note: N=45; * $p < .10$. ** $p < .05$ *** $p < .01$ (two tailed)

Hypothesis Testing

Hierarchical multiple regressions analyses (HMRA) were conducted to test the hypotheses. The advice provided by Hartmann and Moers (1999) was followed who stated that moderation analysis requires hierarchical regression in two steps, one with the main effects only and one with the interaction term(s). To test main effects, the control variable, centred predictors and centred moderator variables were entered for each outcome variable. To test the moderation effects the second step included the interaction terms. Standardised coefficients are reported in the results section unless otherwise specified.

Moderated Hierarchical Multiple Regressions were carried out to test the main effects hypothesised (Hypotheses 1-6), and the interaction hypotheses (Hypotheses 7-10).

Hypotheses 1, 3 and 5 suggested a significant, positive relationship between the three predictor variables and self-efficacy. Hypothesis 1 focussed on change process, Hypothesis 3 on managerial support and Hypothesis 5 on appropriateness of the change. The results of the regression analyses are outlined in Table 2. Change appropriateness ($\beta_{APP} = .31, p = .04$) and manager support ($\beta_{MS} = .34, p = .03$) were found to significantly predict self-efficacy while controlling for managerial status, $R^2 = .36, F(1, 37) 4.29, p = .04$. Thus, 36% of the variance in self-efficacy reported by change recipients was accounted for by both recipient perceptions of change appropriateness for the organisation and levels of managerial support for the change. This provided support for Hypotheses 3 and 5. Change process perceptions were not significantly associated with change self-efficacy, therefore Hypothesis 1 was not supported.

Personal valence was the outcome variable for Hypotheses 2, 4 and 6, while change process, manager support and change appropriateness acted as the predictors. A significant, positive relationship was expected between all predictors and the outcome. Referring to Table 2, change process ($\beta_{CP} = .24, p = .04$), and change appropriateness ($\beta_{APP} = .46, p < .01$),

resulted in a significant predictive model for personal valence while controlling for managerial status, $R^2 = .47$, $F(1, 38) 11.58$, $p < .01$. 47% of the variance in the reported personal valence of recipients regarding the change was accounted for by their perceptions of general change processes within the organisation and the appropriateness of the change for the organisation. Support was therefore provided for Hypotheses 2 and 6 respectively due to the positive relationship between the predictors and personal valence. Manager support for change was not significantly associated with personal valence when the other change related factors were controlled for, leading to Hypothesis 4 being rejected.

The interaction effects presented in Hypotheses 7 to 10 were also tested and are summarised in Table 2. Hypothesis 7 stated that management support for change would moderate the relationship between change process and self-efficacy, such that, reports of self-efficacy would be high when both perceptions of effective change processes and perceptions of manager support are high. The addition of the interaction term to the predictive model did not add significantly to the variance explained and the coefficient for the interaction term was not significant ($\beta_{CP \times MS} = .08$, $p = .58$). This indicated that there was no interaction effect of change process and management support on perceptions of self-efficacy, leading to Hypothesis 7 being rejected.

Hypothesis 8 specified that the relationship between change process and personal valence would be moderated by manager support for the change. When levels of change process and manager support were high, high levels of personal valence were expected. The addition of the interaction term to the predictive model did not add significantly to the variance explained and the coefficient for the interaction term was not significant ($\beta_{CP \times MS} = -.04$, $p = .78$) This indicated that there was no interaction effect of change process and management support on perceptions of personal valence, leading to Hypothesis 8 being rejected.

Table 2:

Summary of Hierarchical Regression Analysis for Variables Predicting Change Recipients' Self-Efficacy and Personal Valence (N = 42)

Variables Entered		Self-Efficacy			Personal-Valence		
		<i>B</i>	<i>SeB</i>	β	<i>B</i>	<i>SeB</i>	β
Model 1	Manager Status	.12	.20	.08	.25	.35	.09
	Change Process	.04	.08	.07	.30	.15	.24**
	Manager Support	.50	.23	.34**	.58	.40	.20
	Change Appropriateness	.24	.12	.31**	.67	.20	.46***
	R^2			.36			.47
	F for change in R^2			4.29**			11.58***
Model 2	Manager Status	.17	.20	.12	.16	.35	.06
	Change Process	.04	.08	.07	.31	.14	.26**
	Manager Support	.53	.23	.36**	.55	.40	.20
	Change Appropriateness	.21	.12	.28*	.72	.20	.49***
	Change Process x Manager Support	.12	.22	.08	-.12	.40	-.04
	Change Process x Change Appropriateness	-.24	.11	-.28**	.34	.19	.20*
	ΔR^2			.07			.04
	R^2			.43			.51
F for change in R^2			4.14**			2.71*	

Note: Change Process, Manager Support and Change Appropriateness were centered at their means.

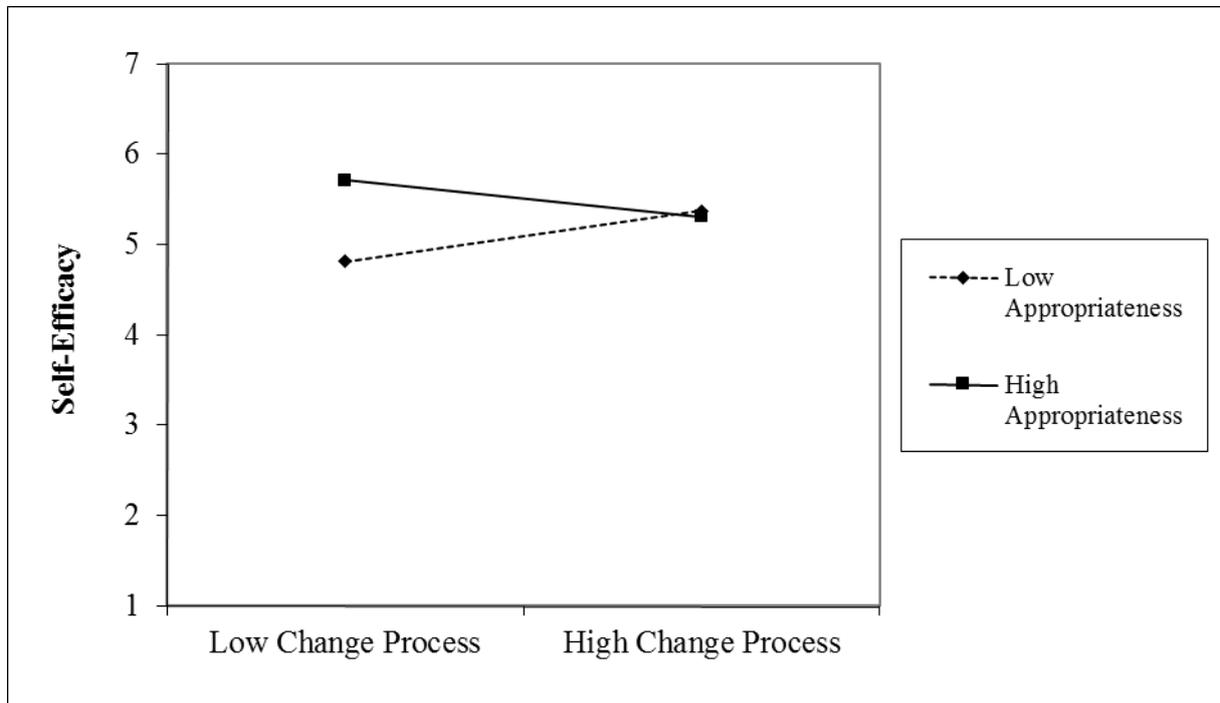
* $p < .10$. ** $p < .05$. *** $p < .01$.

Hypothesis 9 predicted that perceptions of change appropriateness would moderate the relationship between change process and self-efficacy, when both perceptions of effective change processes and appropriateness of change are high, reports of self-efficacy will be high. The addition of the interaction term to the predictive model significantly accounted for an additional 7% of the variance in self-efficacy $\Delta R^2 = .07$, $F(1, 37) 4.14$, $p = .05$. The coefficient for the interaction term also reached significance ($\beta_{CP \times CA} = -.28$, $p = .03$). These results indicated an interaction effect of change process and change appropriateness on self-efficacy.

To interpret the moderation effect of appropriateness on the relationship between change process and self-efficacy, the levels of self-efficacy were plotted against the high and low levels of change process and change appropriateness. Referring to Figure 1, perceived appropriateness of the change moderated the relationship between change process perceptions and self-efficacy in a different direction than hypothesised. When plotting the relationship, it appears that appropriateness had a buffering effect on the relationship between change process and self-efficacy. Employees who perceive previous change management processes to be poor (low levels of change process) and perceive high appropriateness of change to organisations report significantly higher levels of change self-efficacy than employees who perceive low appropriateness of change to the organisation. There was a significant interaction between change process and change appropriateness in predicting personal valence, however it was not in the direction predicted, meaning Hypothesis 9 was partially supported.

Figure 1.

Interaction of Change Process Perceptions and Change Appropriateness on Self-Efficacy for Change.



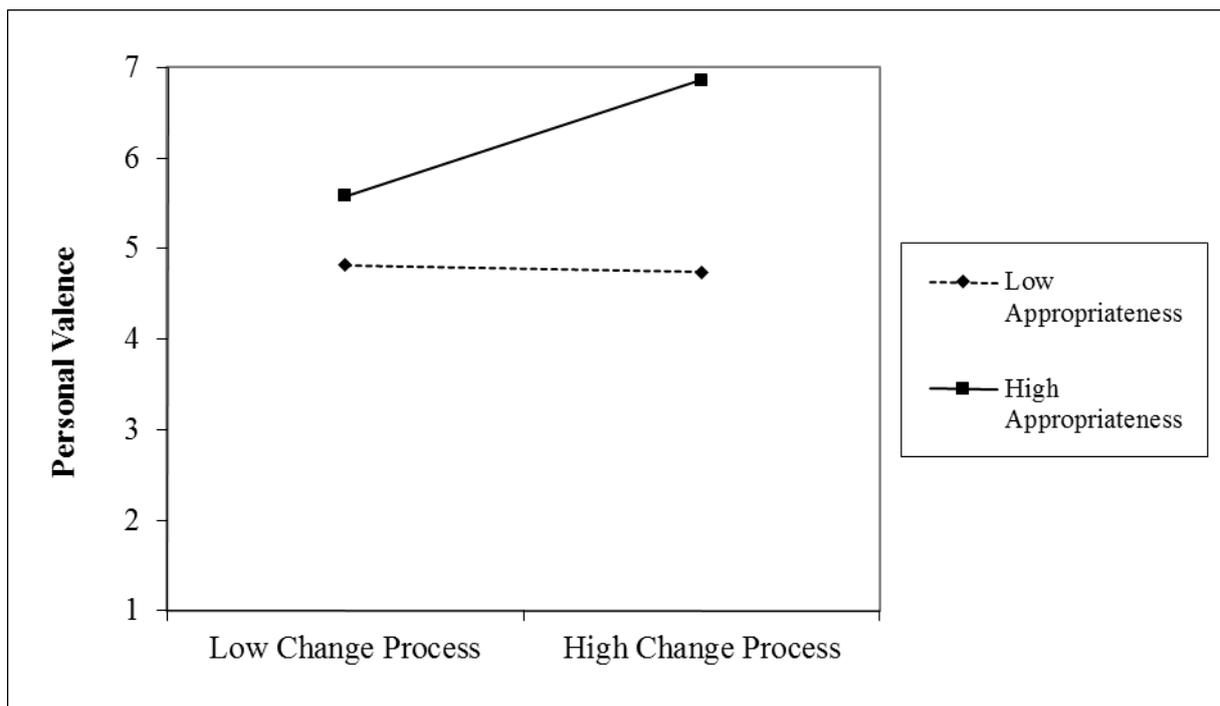
Hypothesis 10 stated that the relationship between change process and personal valence would be moderated by change-appropriateness, such that, when high levels of perceptions of effective change processes and appropriateness of change are present, then reports of personal valence will also be high. Results of the hierarchical regression for Hypothesis 10 are presented in Table 2 and indicate that the addition of the interaction term to the predictive model generated a statistically significant result, indicating that an additional 4% of the variance in personal valence reported by recipients was accounted for with the addition of the interaction term to the model, $\Delta R^2 = .04$, $F(1, 37) 2.71$, $p = .07$. The interaction term also reached significance ($\beta_{CP \times CA} = .34$, $p = .09$), indicating an interaction effect of change process and change appropriateness on personal valence.

To interpret the moderation effect, the levels of personal valence were plotted against the high and low levels of change process and change appropriateness. Perceived appropriateness of the change moderated the relationship between change process perceptions

and personal valence as hypothesised. Referring to Figure 2, change process had an effect on personal valence when there were high levels of perceived appropriateness. When there was a low level of perceived appropriateness, personal valence remained at the same levels regardless of change process perceptions. That is to say, in employees of a changing financial institution, it is irrelevant if previous experience with change within the organisation has been perceived as positive, if the current change is not perceived as appropriate for the organisation then it will not be seen to be personally valuable by change-recipients. These results supported Hypothesis 10.

Figure 2.

Interaction of Change Process Perceptions and Change Appropriateness on Personal Valence of Change



Discussion

This research assessed the relationship between recipient perceptions of several organisation-centric variables (i.e., change process, change appropriateness and management support for change) and the proximal aspects of change readiness (self-efficacy and personal valence). As well as direct effects between these predictors and outcomes, an investigation was carried out into the moderating role distal readiness aspects (change appropriateness and manager support) had on the relationship between change process perceptions and proximal change readiness elements. Results fully supported five of the ten hypotheses, while one was partially supported and four not supported.

Summary of Main Findings

Analysis of descriptive statistics uncovered high means for all variables measured (i.e. change appropriateness, management support, self-efficacy, personal valence) indicating a general sense of positivity towards change within the organisation. Standard deviations for management support and self-efficacy were low, 0.46 and 0.53 respectively. Low standard deviations among people within the same unit of the same organisation is often the sign of a shared climate. People who exist in close proximity for an extended period of time performing similar tasks are often susceptible to emotional contagion – the tendency for individuals to emotionally converge. This often results in similar beliefs, attitudes and responses to stimuli in a familiar environment (Barsade, 2002).

Based on previous research it was expected that recipient perceptions of organisation-centric variables such as prior change processes, appropriateness of planned change and leadership support for change would elicit higher levels of change-related self-efficacy and personal valence. Consistent with Hypothesis 2, the findings revealed a significant positive relationship between change process perceptions and personal valence for the planned

change, indicating that the more positively a person views previous changes within the organisation, the more individual value they will perceive in a planned change. This finding was consistent with previous research that has highlighted the strong links that change management strategies (i.e., skill development opportunities, communication and feedback) have with personal valence (Dent & Goldberg, 1999; Holt et al., 2007b; Oreg, 2006).

Hypothesis 3 was also supported with findings revealing a statistically significant and positive relationship between perceived levels of managerial support for the planned change and recipients' change-specific self-efficacy. This indicated that the higher the levels of support for the change recipients perceive in their leaders, the more confident they will be in their own ability to perform their altered job post-implementation. This result supports the presence of a contagion effect where perceived support of a change on the part of leaders is adopted by followers who in turn hold positive beliefs concerning their performance post-implementation (Barsade, 2002; Luthans, et al., 2006).

Consistent with Hypotheses 5 and 6, reported perceptions of change appropriateness were positively related to both self-efficacy and personal valence. This indicates that higher levels reported of change appropriateness for the organisation lead to recipients reporting higher levels of belief in their own ability to perform their job post-implementation and perceived individual value stemming from the change. These findings are consistent with previous research that has highlighted the link between a perceived need for the change in accordance with organisational norms, and positive reactions to change on a person-centric level (Armenakis & Bedeian, 1999; Cole et al., 2006). This perception of organisational valence is likely to filter through to recipients' views on how the change affects them on a personal level (Visagie & Steyn, 2011). The concept of person-centric beliefs (e.g. self-efficacy) stemming from individual reactions to organisational level stimuli (e.g. change appropriateness) may also contribute to the link between change-appropriateness and self-

efficacy. Those who view both change content and feasibility as appropriate for the organisation may feel a flow on effect making them feel more able to perform (Oreg, 2011). The mechanisms whereby perceptions of appropriateness and the personal valence of a change are related need to be explored in future research as these findings indicate they may be integral to achieving successful change implementation.

Hypothesis 1 was not supported, with results indicating no significant relationship between change process and self-efficacy while controlling for the other predictors as well as managerial status. This result is contrary to the vast majority of scholarly research which have established links between self-efficacy aspects of the change process and – particularly opportunities for skill development (Brown, 1999) and feedback (Gist & Mitchell, 1992) as well as the use of clear bidirectional communication (Bandura, 1982; McKay, Kuntz & Naswall, 2013). However, the majority of change-management literature dealing with self-efficacy is focussed on transformational change (e.g. restructuring), the current systems change is largely technologically and process based. Venkatesh, Thong and Xu, (2012) contended that prior experience with similar technologies contributes greatly to positive attitudes toward using a new technology and adopting the new methods. As aforementioned, each change is unique and efficacy is a concept grounded in a specific change, therefore in this case previous change processes are unlikely to be a reference point for recipients to foster self-efficacy unless those changes involved the same technological systems.

Hypothesis 4 was rejected on the basis of no significant relationship being uncovered between perceptions of managerial support for change and reported personal valence while controlling for the other predictors as well as managerial status. Unlike self-efficacy, which research indicates can be spread through a contagion effect (Barsade, 2002), personal valence of a change may not be something that can be developed based on perceptions of what others value. A possible reason for this is the inherently personal nature of valence in comparison to

self-efficacy. Self-efficacy is viewed as a proximal form of readiness in that it concerns a person's ability to cope with a change beyond contextual appropriateness. Although it is an individual centric variable, in a team environment one's perceptions of ability to cope with processes and procedures may be contingent on others. Future research should explore these dimensions of self-efficacy with multi-level analysis. Change-related personal valence on the other hand is concerned with the value attributed to a phenomenon, something that is unique for each person. Although you can learn needs and which are then ascribed value, valence is primarily dictated by core values and experiences and therefore may be less susceptible to influence from external factors (Self & Schraeder, 2009). Variables concerning the attitudes and behaviours of other people are therefore unlikely to have a strong determining effect on it.

It was also expected that the distal elements of change readiness, perceptions of change appropriateness and management support would moderate the relationship between change process perceptions and the proximal elements of readiness. As expected, it was found that change appropriateness moderated the relationship between change processes and personal valence. In line with Hypothesis 10, when reported levels of change processes and appropriateness were both high, personal valence increased. This indicated that the relationship between change process and personal valence was affected by the level of appropriateness of the change perceived by recipients – the higher levels of reported appropriateness, the more personal value individuals ascribed to the change. It is apparent that the appropriateness of a change is a mechanism that can explain proximal aspects of readiness for change. This interesting finding opens the door for further investigation into the relationship between change appropriateness and personal valence across different timeframes and encompassing different organisational variables.

When investigating the possible moderation effect of change-appropriateness on the relationship between change process and self-efficacy, a significant effect was uncovered but when plotted, it was in a slightly different direction to that predicted in Hypothesis 9. Instead of a moderating effect, a buffering effect was evident with recipients who perceived change management processes to be poor and reported high levels of change appropriateness reporting significantly higher levels of change self-efficacy than employees who perceived low appropriateness of change to the organisation. From a conceptual standpoint, this interaction may be explained by the previous argument that self-efficacy is a concept tethered to the perception of multiple extra-individual factors. As aforementioned, Bandura (1977b; 2012) stated that self-efficacy can be fostered through mastery, social modelling, social persuasion and physiological factors. Change-efficacy was expected to be susceptible to influence from mastery, modelling and social persuasion in particular. Social persuasion is the approach that is of most interest in this case as it indicates that self-efficacy can be built through external sources – in this case through change management strategies focussing on the change and its benefits. It makes logical sense that those who receive clear communication and reassurance about the change content from upper management, focussed on the expected benefits of the change in accordance with organisational values, would have their opinions manifested through higher reports of change appropriateness for the organisation. As hypothesised, self-efficacy would be expected to be higher with high levels of reported appropriateness. It seems however that a lack of effective social persuasion may have led to a lower appraisal of change appropriateness and contributed to self-efficacy for change being lower.

All organisational changes are unique due to the plethora of organisational variables that effect the change-process. Analysing the qualitative information provided by participants for common trends uncovered multiple comments surrounding new leadership within the

organisation. Recipients indicated that past changes had been less than impressive, however the presence of a new CEO – one who is a very skilled change manager – over the past year had instilled new confidence in employees. It was clear from comments that employees were of the opinion that this change was necessary. It can be concluded that if past changes were handled well individuals' garnered self-efficacy from this and appropriateness of the upcoming change did not have an effect, but if past change processes were perceived negatively people may feel more uneasy towards a change and take into account its appropriateness for the organisation.

Hypotheses 7 and 8 concerned the moderating effect of management support for change on the relationship between change processes and self-efficacy and personal valence respectively. No significant interactions were found, leading to both hypotheses being rejected. The mean responses for managerial support for the change were high ($M=5.51$), indicating that in general, the executive team was seen as supportive of the change. The fact that this distal aspect of readiness did not interact with change process perceptions to predict proximal aspects of readiness may simply show that it is not the mechanism whereby proximal aspects of change readiness are explained. The findings of this study should be treated with caution due to the low statistical power stemming from the insufficient sample attained. Therefore, future research should still investigate manager support as a possible predictor of both aspects of proximal readiness to ensure its association – or lack thereof.

Limitations

A major limitation of the current study is the small sample size of 42 participants. Hierarchical multiple regression is commonly cited as requiring a large sample size to achieve the statistical power required to detect significant moderator effects (Cohen et al., 2003). It is possible that the non-significant results found in this study were a product of this

insufficient sample. In an attempt to counteract this issue, the alpha level was raised from $p < .05$ to $p < .10$ in order to raise the power level. This raised the power level to .64, still well below the recommended level of .8 but deemed suitable considering the limited options available for the study. A power level of .64 in itself is a limitation as it increases the chances of error in the conclusions attained from analyses (type I) while increasing alpha increases the odds that effects found are due to chance. To meet the recommended level of power of .8 while having an alpha set at $p < .05$ the sample size required for the current study is 77. The presence of an adequate sample may have uncovered more significant results; however, it was still valuable to get the limited amount of data attained to test the exploratory research questions.

The cause of the low sample size was a low overall response rate of 21%, well below the 50% benchmark Babbie (2007) labelled as desirable. This low response rate may be due to survey exhaustion on the part of recipients who are subject to extensive research each year, especially during times of change. Although it is common for survey-based organisational change research to obtain low response rates (Moates et al., 2005), future research may consider the use of incentives to encourage a higher response rate.

Another possible limitation within the current study is common method variance. According to Podsakoff, MacKenzie, Lee and Podsakoff, (2003), self-report survey data is commonly prone to the negative influence of common method variance. This phenomenon can be described as variance in item responses attributable to the method of measurement as opposed to the constructs the measures are designed to represent (Podsakoff et al. 2003). A potential source of common method variance is social desirability bias – participants responding to surveys in ways that present themselves in a favourable light, rather than expressing their true feelings about an issue. When conducting survey research, it is recommended to assure anonymity of the participants prior to completion of the survey. This

is likely to foster openness and honesty in responses and acts as an effective countermeasure to the potential influence of social desirability bias (Podsakoff et al., 2003). In the current study, maintaining anonymity of respondents was not entirely possible as participant data was to be matched between T1 and T2. This was done using a unique code system, removing participant names ensuring confidentiality. The longstanding relationship between the research team at the University of Canterbury and the changing organisation will likely have added to the trust employees had in their responses being handled appropriately, prompting them to respond in a genuine manner.

A potential issue with using surveys as a data collection method in a time-lag research design is that results gained merely provide a snapshot of the situation within the organisation. Surveys - while useful for assessing employee attitudes before and after the change - only provide information for a certain point in time, whereas organisational change is often a complex, constantly evolving entity (Oreg et al., 2011). Therefore, variables beyond those measured can often have an effect on the change process. Furthermore, the use of a repeated measures design allows only the views of a certain sample of the organisation to be attained (those who match between T1 and T2), leaving open the possibility of major issues and trends not being uncovered. Using a longitudinal design in future research is recommended to alleviate many of these potential limitations.

Although the design of the study was susceptible to the limitations outlined above, its benefits cannot be ignored. Firstly, the time-lag design allowed separated data collections before and after the change, relationships were then established over the change process. Secondly, the time separation allowed some predictors and outcomes to be separated, a common strategy recommended to reduce common method variance (Spector, 2006). These benefits definitely outweigh any possible limitations of the study design.

Future Research Directions

The current study suggests that distal and proximal aspects of readiness for change should be analysed separately, the former as contextual variables that influence the latter. Future research is required to firstly replicate the study using a larger sample which would allow more confidence in results obtained. A longitudinal design is also recommended to allow researchers to investigate change in more detail and at different times in the change process. Longitudinal studies are expensive and obviously time consuming therefore not often entered into without prior evidence of association between variables (Elmes, Kantowitz, & Roediger III, 2011). This study as a time-lag design is essentially a shorter, less detailed version of a longitudinal study as it shows before and after effects without fully exploring how they came to be (Elmes et al., 2011). This evidence of a change however, provides rationale for further research commitment in this area. Undertaking this approach would allow researchers to constantly observe change attitudes throughout the process, allowing them to further understand variables which contribute to their alteration (Elmes et al., 2011). This is likely to provide more detailed and relevant information to organisations planning changes than just the knowledge that attitudes change pre- and post-implementation.

One suggestion for future research would be to investigate the influence of cultural and other organisational variables which might influence the results obtained. Different cultures around the world observe different social and organisational norms which affect how businesses operate (Barkema, Chen, George, Luo, & Tsui, 2015). There is a possibility that the size of the organisation has an effect on the level of support people perceive their managers having for change. Cultural factors may also influence people's perceptions of the variables measured in this study. Lok and Crawford (2004) outlined the significant differences between organisations in eastern and western countries in leadership style, organisational culture and internal structure. These differences as well as differences in social

norms are likely to affect peoples' attitudes and reactions to change. Comparing results of similar studies undertaken in organisations of varying sizes and from different cultures may present some interesting findings.

Theoretical and Practical Implications

The findings of this study firstly reinforce the concept that perceptions of previous change processes as well as perceptions of organisational level change-variables affect recipients' own views on a change – both the value they ascribe and the belief they have in their own ability to perform post-implementation. The significant relationships found between predictors (change-process, change appropriateness and managerial support for change) and outcomes (self-efficacy and personal valence) constitute an important addition to the literature as these variables have been under-researched in this manner. Additionally, given that the predictors explained 36% of the variance in self-efficacy and 47% of the variance in personal valence, this study serves to highlight the importance of further exploring these relationships.

These findings have substantial practical implications for organisations undergoing change as they highlight areas for them to target in order to facilitate readiness in their followers. By exposing the influence organisation-centric aspects of readiness have on person-centric aspects, this study allows organisations to develop strategies for future changes or provides justification for current strategies. For example, both change-appropriateness and manager support for change were found to uniquely predict recipient reports of self-efficacy for change. Based on this, organisations can develop strategies focussing on increasing employee perceptions of change appropriateness and manager support through change management strategies such as clear communication of: the change content and its benefits, the reasons for the change and how the change ties in with

organisational values as well as allowing recipients to feel as though they have participated in and contributed to the change.

Conclusions

Readiness for change is a major contributor to the success with which changes are implemented within organisations (Armenakis et al., 1993; Holt et al., 2007a; Oreg et al., 2011). This study aimed to further understand the concept of readiness by splitting its distal and proximal elements and investigating how they interact with each other as well as with perceptions of previous change processes carried out by the organisation. Five out of the ten research Hypotheses were fully supported with one Hypothesis reaching statistical significance but interacting in different direction to that hypothesised. Significant relationships and interactions were found when readiness for change was studied as four separate dimensions, namely appropriateness of the change, manager support for change, change-efficacy and personal valence of the change. This study provides preliminary evidence that readiness should be studied as more than one dimension as the different dimensions have different relationships with other variables. Future research will need to validate these findings with a larger sample size as well as expand on them to show their influence on job performance. The findings uncovered in a relatively untouched area of scholarly research, as well as its role in laying the platform for future, more in depth research dictate the value of this study as well as its worthwhile contribution to change management literature.

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Appendix A: Research Information and Consent to Participate

Information

The purpose of this survey is to **gather your views regarding the upcoming systems change at [organisation's name]**. Your input is invaluable and it will a) enable the People and Support team to diagnose member needs associated with the change, and take the necessary steps to facilitate this process, and b) contribute to our academic understanding of individual responses to organisational change, and how they influence implementation success.

Your involvement requires you to **complete two online questionnaires**: one now and another later in the year once the change is implemented. Each of these questionnaires should take **no longer than 20 minutes to complete**.

The project is being carried out as a requirement for two dissertations under the supervision of Dr. Joana Kuntz, who can be contacted at joana.kuntz@canterbury.ac.nz. She will be pleased to discuss any concerns you may have about participation in the project. **Please note that the results will be presented at the branch level, therefore no individual responses can be linked to you. Further, the datasets will be fully de-identified** by Dr. Joana Kuntz prior to being analysed by the two students involved in the process. Your two surveys will be linked and then assigned a random code.

Participation is voluntary and you have the right to withdraw, by emailing Joana, until the dataset has been de-identified. If you withdraw, any information relating to you will be removed.

A dissertation is a public document and will be available through the UC Library. The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation. **The identity of participants or the organisation will not be made public**. All data and participant information will be held under direct responsibility of the primary supervisor. The data will be stored for 10 years, locked securely in a file cabinet and password protected on a computer.

The project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Consent

I have read and understood the description of the above-named project. On this basis, I agree to participate as a subject in the project, and I consent to publication of the results of the project with the understanding the anonymity will be preserved.

I understand also that I may withdraw from the project, including withdrawal of any information I have provided, without penalty.

I am aware that the project has been reviewed and approved by the University of Canterbury Human Ethics Committee.

By completing this survey you are agreeing to participate in this research project.

Appendix B: Time One Questionnaire Content

Demographic Information

Gender

- Male
- Female

Age

How long have you worked at [organisation's name]?

Please let us know what your role is:

- Manager
- Non-manager

Change Process Perceptions

We would like to gain an understanding of your perceptions of how change is typically managed at [organisation's name].

(1 – strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – neither agree nor disagree, 5 – somewhat agree, 6 – agree, 7 – strongly agree)

- The Executive Team evaluates the current situation (e.g. financial, member requirements, staffing) prior to setting change goals
- The gap between “where we are” and “where we want to be” is clearly determines prior to change implementation
- The Executive Team identifies critical team member skills and capabilities needed to implement change
- [Organisation's name] develops necessary skills and capabilities through training, coaching or other means in order to respond to change
- Team members are kept informed about the ongoing status of change processes
- Change outcomes, including milestones, are communicated in a timely fashion
- Team members are rewarded for supporting change efforts

Please note down any comments you may want to volunteer regarding your previous answers.

Appendix C: Time Two Questionnaire Content

Readiness for Change

Appropriateness of Change

We would like to gain an understanding of how appropriate you feel the change is for the organisation.

(1 – strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – neither agree nor disagree, 5 – somewhat agree, 6 – agree, 7 – strongly agree)

- I think that [Organisation's name] will benefit from this change.
- It doesn't make much sense for us to initiate this change.
- There are legitimate reasons for us to make this change.
- This change will increase [Organisation's name]'s overall efficiency.
- There are a number of rational reasons for this change to be made.
- In the long run, I feel it will be worthwhile for me if [Organisation's name] adopts this change.
- This change makes my job easier.
- When this change is implemented, I don't believe there is anything for me to gain.
- The time we are spending on this change should be spent on something else.
- This change matches the priorities of [Organisation's name].

Management Support for Change

We would like to get your perspective on the Executive Team's attitude toward the change.

(1 – strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – neither agree nor disagree, 5 – somewhat agree, 6 – agree, 7 – strongly agree)

- Our Executive Team has encouraged all of us to embrace this change.
- [Organisation's name]'s top decision makers have put all their support behind this change effort.
- Our Executive Team has stressed the importance of this change.
- [Organisation's name]'s most senior leader is committed to this change.
- I think we are spending a lot of time on this change when the Executive Team don't even want it implemented.
- The Executive Team has sent a clear signal this organisation is going to change.

Self-Efficacy

We would like to gain an understanding of how you feel about your ability to perform your job after the change has been implemented.

(1 – strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – neither agree nor disagree, 5 – somewhat agree, 6 – agree, 7 – strongly agree)

- I do not anticipate any problems adjusting to the work I will have when this change is adopted.
- There are some tasks that will be required when we change that I don't think I can do well.
- When we implement this change, I feel I can handle it with ease.
- I have the skills that are needed to make this change work.
- When I set my mind to it, I can learn everything that will be required when this change is adopted.
- My past experiences make me confident that I will be able to perform successfully after this change is made.

Personal Valence

We would like to gain an understanding of how you perceive this change will impact you.

(1 – strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – neither agree nor disagree, 5 – somewhat agree, 6 – agree, 7 – strongly agree)

- I am worried I will lose some of my status in the organisation when this change is implemented.
- This change will disrupt many of the personal relationships I have developed.
- My future in this job will be limited because of this change.

Appendix D: Exploratory Factor Analysis Results for All Measures

Table 3. Factor Loadings for 7-item Change Process Perceptions Scale using Principle Axis Factoring and Oblique Rotation (Direct Oblimin)

Item		Factor 1
1	The Executive Team evaluates the current situation (e.g. financial, member requirements, staffing) prior to setting change goals	.60
2	The gap between “where we are” and “where we want to be” is clearly determines prior to change implementation	.75
3	The Executive Team identifies critical team member skills and capabilities needed to implement change	.79
4	[Organisation’s name] develops necessary skills and capabilities through training, coaching or other means in order to respond to change	.74
5	Team members are kept informed about the ongoing status of change processes	.82
6	Change outcomes, including milestones, are communicated in a timely fashion	.74
7	Team members are rewarded for supporting change efforts	.73
Eigenvalue		3.86
Percentage of variance explained		55.14

Table 4. Factor Loadings for 10-item Change Appropriateness Scale using Principle Axis Factoring and Oblique Rotation (Direct Oblimin)

Item		Factor 1
1	I think that [Organisation’s name] will benefit from this change.	.73
2	It doesn’t make much sense for us to initiate this change.	.65
3	There are legitimate reasons for us to make this change.	.66
4	This change will increase [Organisation’s name]’s overall efficiency.	.77
5	There are a number of rational reasons for this change to be made.	.87
6	In the long run, I feel it will be worthwhile for me if [Organisation’s name] adopts this change.	.88
7	This change makes my job easier.	.78

8	When this change is implemented, I don't believe there is anything for me to gain.	.84
9	The time we are spending on this change should be spent on something else.	.82
10	This change matches the priorities of [Organisation's name].	.78
Eigenvalue		6.09
Percentage of variance explained		60.93

Table 5. Factor Loadings for 6-item Management Support Scale using Principle Axis Factoring and Oblique Rotation (Direct Oblimin)

Item		Factor 1
1	Our Executive Team has encouraged all of us to embrace this change.	.79
2	[Organisation's name]'s top decision makers have put all their support behind this change effort.	.77
3	Our Executive Team has stressed the importance of this change	.73
4	[Organisation's name]'s most senior leader is committed to this change.	.58
5	I think we are spending a lot of time on this change when the Executive Team don't even want it implemented.	.67
6	The Executive Team has sent a clear signal this organisation is going to change.	.58
Eigenvalue		2.87
Percentage of variance explained		47.82

Table 6. Factor Loadings for 6-item Self-Efficacy Scale using Principle Axis Factoring and Oblique Rotation (Direct Oblimin)

Item		Factor 1
1	I do not anticipate any problems adjusting to the work I will have when this change is adopted.	.60
2	There are some tasks that will be required when we change that I don't think I can do well.	.58

3	When we implement this change, I feel I can handle it with ease.	.87
4	I have the skills that are needed to make this change work.	.78
5	When I set my mind to it, I can learn everything that will be required when this change is adopted.	.67
6	My past experiences make me confident that I will be able to perform successfully after this change is made.	.71
Eigenvalue		3.00
Percentage of variance explained		50.02

Table 7. Factor Loadings for 3-item Personal Valence Scale using Principle Axis Factoring and Oblique Rotation (Direct Oblimin)

Item		Factor 1
1	I am worried I will lose some of my status in the organisation when this change is implemented.	.87
2	This change will disrupt many of the personal relationships I have developed	.79
3	My future in this job will be limited because of this change.	.92
Eigenvalue		2.23
Percentage of variance explained		74.37