Developing an Employee-Centric Perspective on Change

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Abstract

Change is a pervasive and ubiquitous part of the work-life of employees in the 21st century. Inspired by scholars who emphasize the importance of positioning employees as central and active participants in change, and contrasting with the current change literature that frequently falls short of this goal, I set out to reframe employee reactions to change. Hence, the thesis comprehensively reviews the current positioning of employee reactions in the change literature, providing theoretical development, empirical evidence, and recommendations to develop this field further. This thesis comprises four related papers that are either published, under review at journals, or in preparation for submission.

Paper One answers a foundational question—to what extent are employees currently experiencing change at work? Scholars frequently describe organizational change as common and increasing, yet empirical evidence rarely supports these claims. Employees in three countries—the US, Australia, and New Zealand—were asked in 2017 how much change they were experiencing at work. A key finding was that approximately 70% of employees were currently experiencing change at work, with few differences by country or demographics. This shows that change is a ubiquitous and continuous element of work.

Paper Two presents a systematic meta-review of employee-level organization change research. This synthesis of 34 review papers published between 2000 and February 2021 is used to develop an employee-centric model of organizational change reactions with proximal and distal antecedents and outcomes. Two key findings—the repeated calls yet minimal action on striving for a more nuanced representation of employees in relation to organizational change and the importance of qualitative research for developing such a nuanced representation – were the inspiration for Paper Three.

Paper Three reviews the qualitative and conceptual change literature of patterns and typologies of employee responses to change. Qualitative comparative analysis is used to inductively develop six prototypical employee change orientations grounded in the literature—the defender, the enthusiast, the half-hearted, the pragmatist, the challenger, and the jaded. A configurational framework categorizes each prototype with a positive and negative valence varying by activation strength, allowing for consistent and ambivalent prototypes.

Paper Four builds on the configurational framework developed in Paper Three and the findings in Paper One that change is a normal part of working life. This final empirical paper comprises two studies asking employees about their thoughts, feelings, and behaviors related to continuous change in their workplace. The person-centric technique of latent profile analysis is used to identify distinct response profiles in the data. The emergent profiles furnish initial support for the prototypes theorized in Paper Three concerning continuous change. The analyses provide a foundation for suggestions to develop this new profile-based approach to understanding employee reactions to change. From this basis, strategies are suggested for measuring employee change orientations.

My thesis makes numerous original theoretical and practical contributions to the employee-centric organizational change literature. I highlight four of these here. The thesis provides evidence of change prevalence identifying change; presents an employee-centric model of change reactions to link the employee change reactions research to adjacent fields; contributes a typology and configurational framework of nuanced employee change orientations, and supplies initial empirical evidence to explore change orientations to continuous change.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgments), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

I declare that I am the principal author of the jointly-authored manuscripts listed below and have engaged in initial writing up, data collection, analysis, journal article submission, and journal revise and resubmits where applicable. All data analyses and results were confirmed by the Chief Supervisor. The co-authors, who are my chief and secondary supervisors, have assisted in the development of research ideas, research design, clarification of analyses, editing, commenting on drafts, and assisting with the review process. The agreed percentage contribution or each manuscript is given at the end of each reference/title of the manuscript in parentheses, in the same order as the authors are listed below.

Following is the list of all papers/manuscripts undertaken for this thesis:

Paper 1: Brazzale, P. L., Cooper–Thomas, H. D., Haar, J., & Smollan, R. K**.** (2021). Change ubiquity: Employee perceptions of change prevalence from three countries. *Personnel Review*. Advance online publication. https://doi-org.ezproxy.aut.ac.nz/10.1108/PR-04-2019-0211

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CHAPTER 1: Introduction and Overview of Studies

1.1 Introduction

Change is an ever-present phenomenon in contemporary organizations (Kiefer, 2005), and this pace of change continues with digital transformation (Hanelt et al., 2020), the COVID-19 pandemic (Wang et al., 2020), and climate change (Termeer et al., 2016). Meanwhile, more mundane changes persist in the workplace, such as changes in personnel, updates to equipment, and advancements in products or services. While change occurs to and in organizations, this change must be made sense of and enacted by the organization's employees (Bartunek et al., 2006; George & Jones, 2001). Hence, I focus on employees' feelings, thoughts, and actions concerning change in this thesis. More specifically, I adopt an employee-centered perspective of continuous change in organizations. In this approach I define *change* as the subjective perception of the employee, meaning change at work is whatever the employee perceives it to be for them—an emic perspective. This approach is different from the dominant etic perspective on organizational change in which the change researcher and management define the change or changes of interest for study.

Researchers have been investigating employee reactions and behavioral responses to organizational change for over 70 years (Oreg et al., 2011). However, despite these ongoing and considerable efforts, the organizational change management literature provides only limited answers. The change reactions literature has focused on the employee attitudes to change and its antecedents and consequences, producing literature the scholars have critiqued as fragmented (Bouckenooghe et al., 2021), dominated by cross-sectional surveys and case studies drawn from single organizations, providing inadequate evidence of causality and a lack of generalizable findings (Bouckenooghe, 2010; Oreg et al., 2011).

Recent reviews have noted the characterization of employees as passive change recipients, wrought by active change agents, with change recipients' orientation to change generally dichotomized into compliance or resistance to change (Bartunek & Jones, 2017; Burnes, 2015; Oreg et al., 2018; Piderit, 2000). Concern over the representation of employees as change recipients in research has led to calls for research investigating the proactive efforts of individuals to cope positively with organizational change (Fugate, 2013; Vakola, 2016). Indeed, positioning the individual as an active participant in organizational change is rare and has been highlighted as providing an opportunity for more significant research (Bartunek & Jones, 2017).

Scholars have also criticized the theories and assumptions underpinning employee change reactions and their relationship to change progress for lacking depth and supporting empirical evidence (Burnes, 2015; Cummings et al., 2016). More recently, there has also been a call to consider a more person-centered research approach to develop a more nuanced understanding of the deeper mechanisms that underpin employee change responses (Bouckenooghe et al., 2021). Despite these critiques of the individual-level change research, I acknowledge the wealth of research that is available. It is from this knowledge base that this thesis develops an employee-centric perspective on change. At the same time, this thesis aims to avoid being limited by the theoretical approaches which scholars have identified as constraining the development of change research (Schwarz & Stensaker, 2014). In this thesis, I identify what can be leveraged from the wealth of research that makes up the individual-level change literature and use this to develop an employee-centered perspective on change supported with empirical evidence.

The employee-centric perspective I adopt in this thesis needs further introduction. Popular models in change management tend to represent organizational change as discrete,

structured, top-down projects of an episodic nature (Weick & Quinn, 1999), wherein success is linked to excellent management and communication rather than the efforts of those adopting or receiving the change. In addition, employee change reaction research is dominated by variable-centered studies of change attitudes, primarily change resistance, readiness, and commitment (Bouckenooghe, 2010; Choi, 2011; Schwarz & Bouckenooghe, 2018). However, the work of change is enacted by employees; therefore, understanding how these employees experience change is central to understanding how organizations change (George & Jones, 2001), and hence my interest in research centered on the employee's perspective. An employee-centric perspective is needed to build new insights into how organizations change, and the resources needed to influence positive outcomes from change, such as personal wellbeing, work engagement, and productivity.

Positioning the employees as central actors in change requires shifting from traditional research perspectives and paradigms. Weick and Quinn (1999) recommend the continuous change paradigm to investigate the employee perspective of change, referring to this as the micro-perspective and contrasting it with the macro-perspective more commonly applied in episodic and planned change-oriented research. Applying a continuous change paradigm situates change as ongoing, emerging, and incremental, with no end state, requiring ongoing adaption and a normal part of work (Weick & Quinn, 1999). This perspective on continuous change describes it as the minor incremental changes that contribute to more significant changes. Ongoing change is another term used to describe the phenomenon of continuous change for employees, as an ongoing cacophony of multiple changes overlapping in content and time as experienced by employees (Dutton et al., 2001; Kiefer, 2005). However, these definitions of continuous change position employees as passive change adaptors or receivers of this change. Whereas employees can and do initiate

change proactively (Parker & Collins, 2010) through job crafting activity (Zhang & Parker, 2019) or their day-to-day work (Feldman, 2000; Orlikowski, 1996). To be complete, any definition of continuous change would need to include the possibility of employee-initiated change. This is change initiated from an organization's teams and frontline employees—bottom-up change, rather than those initiated from the top-level management—top-down change (Bouckenooghe, 2010). An inclusive definition of continuous change in the employee-centric perspective needs to include change both externally generated to the employees and the change they have initiated themselves. Therefore, this thesis defines the phenomenon of continuous change as the culmination of all perceived ongoing, incremental, and emerging changes, both imposed and self-initiated, as experienced and enacted by the employee.

The employee-centric perspective of change is underexplored in the change literature. Therefore, I have adopted an exploratory approach, developing assumptions and elements of an employee-centric perspective on continuous change, asking: How prevalent is change at work? How could an employee-centric conceptual framework look? Are there distinct profiles of employee change orientations, and can these be decerned from change research? What employee change orientations are relevant when talking about the phenomenon of continuous change? This thesis uses four papers to answer these questions. These have resulted from this exploratory effort, and next, I explain how each chapter provides the foundation for successive chapters. The four papers have either been published, are under review, or are manuscripts in preparation. In recognition of the contribution of my co-authors, I use the pronoun 'we' to denote their contribution to these papers. Elsewhere the pronoun 'I' is used.

First, to establish a solid foundation for developing an employee-centric perspective on change, my initial research questions were: How prevalent is change at work for employees, and how do those experiencing the most change feel about it (see Chapter 2)? Second, given the wealth of prior research on change reactions, my research question was: What can be leveraged from the reactions to change literature to develop a person-centric conceptual framework of employee change reactions (see Chapter 3)? Third, I asked if employees' change reactions signaled by the combination of feelings, thoughts, and behaviors could be explored through a person-centered lens with the distinct repeated response patterns indicative of the employee orientation toward change (see Chapter 4). Finally, given the novelty of the theoretical development in Chapter 4, the logical next step is to test them empirically. Thus, next, I examined whether measuring employees' feelings, thoughts, and behaviors toward continuous change yielded the proposed employee change orientations (see Chapter 5)? Below, I expand on each chapter's reasoning in this thesis and summarize each paper's findings and specific contributions.

1.2 Developing an Employee-Centered Perspective: How Prevalent is Change?

In designing this research program, I firstly wanted to understand if change was, as I suspected, a normal part of working life today for employees or if it was a rarer disruption contrasting with more stable normality. This would provide a foundation for the subsequent empirical components of the thesis. If change is quite rare, then I would need to target employees in organizations with considerable change. If change is high in prevalence across a broad range of different organizations, then such targeting would not be necessary. Thus, if continuous change predominated, this would imply that using a sample of employees across many organizations could be a novel way to explore employee reactions to continuous change.

After reviewing the change literature, I could not find any robust evidence of the prevalence of change for employees. Instead, there was inconsistency, with authors either introducing papers extolling how common change is (e.g., Al-Haddad & Kotnour, 2015; Peng et al., 2020) or less commonly questioning whether change was common at all (e.g., Oreg, 2018). This lack of clarity over how prevalent change is for employees lead me to ask employees in three countries, the US, Australia, and New Zealand, how much change they are experiencing at work. The contributions from this first paper are the finding that change is ubiquitous, being experienced by 73% of employees across the three countries. Also, within this study, the emotions expressed by participants in their written comments revealed that those experiencing the most change were more likely to use high activation negative affect words to describe how they felt about the change. I next provide a more detailed overview of this first paper, presented in Chapter 2.

Chapter 2: Change ubiquity: Employee perceptions of change prevalence from three countries. Chapter 2 addresses assumptions about the prevalence of change in the organizational change literature and provides evidence from employee perceptions across three countries of the presence of change in contemporary workplaces. Using data collected in 2017, employees were commonly experiencing change well before the pandemic disruptions of 2020. This was an exploratory study of employees' perspectives using a cross-sectional self-report survey. Three survey panel samples were collected: US (n = 718), Australia (n = 501), and New Zealand (n = 516) from employees over 18 years of age working at least 20 hours per week in paid employment. A quantitative analysis of variance approach was used to test whether the prevalence of change varied significantly between countries or specific groups of employees. Qualitative analysis of participants' written

comments on change types and emotional responses complemented the quantitative analysis.

The findings provide evidence of the ubiquity of change, with 73% of employees experiencing change at work, and 42% of these perceived the current change to be a moderate to a massive amount. There was minimal variation between countries. Employees in the study reported experiencing more than one change occurring currently in their workplace. Additionally, the qualitative analysis identified that those experiencing large amounts of change reported predominantly negative emotional impacts. The research provides a snapshot across three countries during a prosperous and relatively stable period, providing a point of comparison for the turbulent times we have faced since 2020 with the global COVID-19 pandemic.

The main contribution of this paper is to provide evidence of change ubiquity—evidence to support the claims that change is an everyday part of working life. This allows future scholars to make informed choices about their research design, knowing that, in these three countries at least, and during a more stable period, most employees experienced change as an everyday part of work. This finding that change is highly prevalent supports the assumption that change is continuous and with varying intensity and content for employees as reasonable. As well as providing a firm footing for other scholars, this finding influenced my research design. Specifically, it increased my confidence that it would be reasonable to research employee reactions to continuous change across employees from diverse organizations—that is, not limiting myself to employees in organizations undergoing change projects.

1.3 Situating Employees in the Center: Building an Employee-Centric Conceptual Framework of Change Reactions

A person-centered research approach is dependent on a sound theoretical basis and uses inductive theory building (Wang & Hanges, 2011; Woo et al., 2018). However, the majority of organizational change and reactions to change research has been based on the antecedents and consequences of attitudes on change (Oreg et al., 2011). This research tradition has adopted dimensional approaches, such as factor analysis, to understand phenomena related to change (Bouckenooghe et al., 2021). Dimensional approaches investigate the inter-relatedness of variables as a function of processes or causes (Wang & Hanges, 2011). An alternative is to implement a person-centered approach, which groups individuals based on shared characteristics instead of variables (Woo et al., 2018). As person-centered analysis is complementary to variable analysis, I analyze the reviewed literature to identify the most critical variables related to employee change reactions. Using these variables, I then constructed a conceptual framework to inform this thesis' development and testing of a configurational framework of employee change orientations.

Given the vast and scattered nature of individual-level change research, I decided to focus on the review literature. There have been numerous good-quality review articles in the change literature, which distill the key individual-level change concepts and variables. Rather than retread old ground and review the extensive primary literature, I relied on the integrity of these scholars to include the variables most pertinent to employee change reactions. The primary contribution from Chapter 3 is an employee-centered conceptual framework for reactions to change at work. This systematic review of review papers, known as a meta-review, also draws on research from the closely associated fields of

occupational health, job design, and adaptive performance. Below is a summary of the meta-review provided in Chapter 3.

Chapter 3: Employee reactions to change: A systematic meta-review and employee-centered conceptual model. This second paper aims to draw from past employee reactions to change research to build a person-centric conceptual model of employee reactions to change. This paper addresses the research question of what theory and constructs can be adapted from traditional change reactions research to inform an employee-centered perspective on change Person-centered research is complementary to dimensional-focused research, and in line with this, I aimed to develop a person-centered conceptual framework that benefited from the rich heritage of change research. For this reason, the meta-review focuses on reviews of empirical employee reactions to change research and their associated antecedents and outcomes. A systematic review approach is used to ensure a rigorous approach to gathering reviews from the traditional change literature and closely associated literature of occupational health, job design, and adaptive performance. The inclusion of this neighboring literature ensures comprehensive coverage of potentially useful concepts and constructs.

Thus, Chapter 3 provides a systematic meta-review of individual-level organizational change research reviews, identifying 34 review papers published in the last 20 years (2000 through February 2021). Through this review, I identified the key constructs and concepts that characterize employee reactions to change. My analysis consolidates the antecedents, change reactions, and outcomes of employee reactions to change to develop an employee-centered conceptual model of reactions to change. The framework's utility is improved by splitting the antecedents and outcomes into proximal—directly related to the

individual, and distal– those more distantly related to the bigger picture, such as the organization or the change.

1.4 Prototypes of Employee Change Reactions

Typologies of employee change reactions abound in the change literature (e.g., (Bhattacherjee et al., 2018; Lines, 2005; Oreg et al., 2018; Stensaker et al., 2002). Each response type described in the literature has some combination of affective, cognitive, or behavioral elements. These can be extracted from qualitative observations to describe the differences researchers observe, such as sabotage, take self-control, and paralysis coping styles identified by Stensaker et al. (2002). This approach is configurational with the heterogeneity of a population described as distinct profiles. This configurational approach is also present in the conceptual literature. A recent configurational example from the conceptual change literature is provided by Oreg et al. (2018), who present four distinct types of emotional responses to change resistance, proactivity, disengagement, and acceptance. The typologies are examples of a person-centered approach that clusters people based on similarities in a characteristic, with each cluster described by a profile (Woo et al., 2018).

The presence of these typologies indicates that researchers see merit in a configurational approach to conceptualizing employee change responses. However, despite the many and varied labels for employees' responses to change, there appeared to be a repetition of terminology like resistance which seemed to cover varying definitions (e.g., Oreg et al., 2018; Smollan, 2011; Szabla, 2007). Alongside terms that were different such as sabotage (Stensaker et al., 2002) which seemed to describe a response the seemed very similar to the resistance profile described by other scholars. Another concerning factor was

the lack of a review or consolidation of the wealth of qualitative change research that described distinct patterns of employee reactions to change. Thus, rather than conducting more primary studies, there was a need to amalgamate the findings to clarify the patterns of an employee responding that commonly recur. From these observations, I developed the research questions guiding Chapter 4. Is it possible to identify distinct repeated patterns of employee change reactions and responses in qualitative research that focuses on employees and change? Can these be organized into a configurational framework that enables empirical testing if distinct prototypes can be identified?

Building on the findings in Chapter 3 that employee change reactions are characterized by a mix of affective, cognitive, and behavioral factors, I used these three categories to structure my qualitative synthesis of the change literature. Additionally, I allowed for ambivalence in my coding, as this mixed reaction has been identified as relevant in employee change reactions (Piderit, 2000), although only slow progress has been made to date in operationalizing ambivalence (Rothman et al., 2017). In the qualitative analysis of participants' written comments about the change in Chapter 2, I found the work affect circumplex (Warr et al., 2014) to capture and categorize participants' affective comments. Similarly, Warr et al.'s model influenced the development of Oreg et al. (2018) affect-based model of employee change reactions. Therefore, I used the affect circumplex model to code the affective language across the papers included in the review. An inductive approach was used to develop the distinct profiles that emerged from our review, drawing on the grounded theory methodology of constant comparative analysis (Corbin & Strauss, 1990; Glaser & Strauss, 1967). Constant comparative analysis was used both to identify and subsequently challenge the emergent profiles. The critical contributions from this chapter are: First, the identification of a typology of six distinct prototypes of

employee change orientations, extracted from a comprehensive review of the change literature. Second, a configurational framework to locate these profiles and stimulate future research. Below is a summary of the study and its findings.

Chapter 4: Employee change orientations: Development of a typology and configurational framework. Organizational change research has produced a swathe of approaches exploring how employees respond to change. While these perspectives have value, the organizational change field has become congested with niche constructs, suggesting a need to review and organize the literature, identify progress, and outline promising ways forward. To achieve this, we identify and integrate employee change responses from past studies, using constant comparative analysis and taxonomic analysis. We establish a typology and a framework of employee change orientation prototypes, identifying six prototypes: defender, enthusiast, pragmatist, half-hearted, challenger, and jaded. Each prototype combines a distinct pattern of feelings, thoughts, and behaviors of employees experiencing change. Our analysis reveals that three of the six prototypes represent ambivalence, comprising mixed thoughts, feelings, or behaviors. Drawing on our fine-grained analysis, we advance a novel framework positioning positive and negative change orientation as two separate valence dimensions, varying in strength. This structure enables consistent and ambivalent change orientations to be located in the framework and allows for dynamic transitions between change orientations. Together, this typology and framework provide a fresh perspective to change research, opening new research avenues and providing tools to assist employees, managers, and practitioners in navigating the complexity of workplace change responses.

1.5 An Empirical Exploration: Person-Centered Analysis of Employee Change Orientations

This final paper of the thesis explores the employee-centered model of employee change orientations empirically regarding continuous change. First, drawing on the finding in Chapter 2 that change is commonplace for employees, continuous change was used as the target change to assess employee change orientations. Second, from the meta-review in Chapter 3, I was sensitized to the types of measures that should be included in our person-centered measurement model to increase the chance of decerning distinct change orientation profiles. Chapter 4 identified that distinct profiles of change orientations were represented in the change literature and could be differentiated by simultaneously considering affect, cognition, and behavior.

Consistent with the person-centered approach, I used latent profile analysis (LPA) with continuous variables to identify underlying types or clusters of similar people within the sample data (Wang & Hanges, 2011; Woo et al., 2018). This LPA technique has provided insights into other emerging management and organizational behavior domains such as organizational commitment (e.g., Meyer & Morin, 2016), work motivation (e.g., Howard et al., 2020), and emotional labor (e.g., Gabriel et al., 2015).

This final paper, comprising of two studies, and makes three contributions. First, these studies indicate that a person-centered approach to empirical change research is feasible and possible using measures and theories derived from the organizational change literature. Second, providing empirical evidence that at least five of the profiles predicted in Chapter 4 can be identified for continuous change. Third, this paper provides empirical

evidence of employee orientations toward continuous change and identifies the most common profiles that have mixed or ambivalent orientations.

Chapter 5: Profiles of employee change orientations to continuous change: A latent profile analysis in two studies. Change is an ever-present part of today's workplace, experienced by most employees. Hence the focus of this paper is the employee orientations to continuous change. Change orientations are the combination of feelings, thoughts, and behavioral responses employees have concerning change at any point in time. I apply a theoretical framework that identifies six recurring employee change orientation patterns identified from the change literature (see Chapter 4). Within this theoretical framework, we allow for nuanced change orientations by uncoupling the negative to positive continuum instead of allowing change orientations to be positive and negative and allow for variations in intensity. In Study 1, in pre-pandemic times, we identified five distinct profiles of change orientation—enthusiast, pragmatist, half-hearted, cynical-jaded, and despondent-defender. Improvements were made to the survey instruments to improve the definition of the profiles and identify other profiles. Study 2 was conducted one year into the pandemic. In this second study, two new research design features were introduced: (a) the inclusion of additional, good quality behavioral measures and (b) the inclusion of employees experiencing minimal change, providing a realistic assessment of the profiles across all employees. The analysis reconfirmed the five previously identified profiles even in the dramatically changed context of the pandemic. With an additional profile, the indifferent, that was related to those experiencing minimal change. Covariate analysis in both studies of group membership antecedents and distal outcomes also provides good support for the classifications in both studies. Together these studies provide strong evidence of the existence of at least five distinct profiles of change orientation and the

utility of classifying these profiles by activation and valence, including the three dimensions of affect, cognition, and behavior toward change simultaneously.

1.6 Chapter 1 Summary

This thesis explores change reactions by taking an employee-centered perspective of change. I identify empirical evidence, typologies, and frameworks to guide future employee-centric change research through this exploration. In Chapter 2, I present survey research establishing that change at work is ubiquitous, adding weight to the idea that change is continuous for employees. In Chapter 3, I integrate reviews of organizational change literature related to employee reactions. Through this, I identify the critical components to consider in an employee-centered approach to understanding change reactions that build off the existing dimensional research traditions. Chapter 4 synthesizes the qualitative literature investigating employee reactions to change to build a novel typology of employee change orientations. In addition, in Chapter 4, I propose a configurational model that can be tested empirically. Then in Chapter 5, I use LPA to identify the employee change orientation profiles related to continuous change across two studies. Following on from these four papers, I then combine these findings and contributions in a general discussion in Chapter 6. In this final chapter, I suggest an agenda for future employee-centered change research and a model to encourage future research of the psychological mechanisms underpinning employee change orientations.

CHAPTER 2: Change Ubiquity: Employee Perceptions of Change Prevalence from Three Countries

Chapter 2 - Preface

At the start of my thesis, a key question I sought to answer was, for employees, just how common is change? I tried to find clues in the academic literature but struggled to uncover definitive evidence, while in the practitioner literature, change was presented as an everyday part of working life that employees needed to navigate (e.g., Bersin, 2017). Understanding how widespread change is for employees was also critical for the research design of my thesis. If changes are rare, I would need to target organizations and workplaces currently experiencing change in order to investigate employees who were experiencing change. Whereas, if changes are commonplace, then I could apply a more generalized approach to sampling employees. Additionally, I wanted to explore change prevalence in New Zealand, Australia, or the US. Hence, to explore these issues, I added three questions to an extensive survey of work-life balance being conducted in the US, Australia, and New Zealand in 2017 by Professor Haar. The results described in the following chapter supported change being ubiquitous across these three countries. This paper was presented at two conferences, the Aotearoa New Zealand Organizational Psychology and Organizational Behavior (ANZOPOB) in Auckland 2017, and Australia and New Zealand Academy of Management (ANZAM) in Auckland 2018. The paper then was published in 2021 in Personnel Review https://doi.org/10.1108/PR-04-2019-0211. Emerald has permitted the inclusion of this paper in the thesis.

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2.1 Introduction

For over 70 years, research has investigated both organizational change and employee reactions to change (Oreg et al., 2011) with an increasing focus on employee perspectives (Oreg et al., 2018). Scholars have acknowledged the ever-increasing complexity and speed of change, necessitating HRM specialists to keep pace (Bamber et al., 2017) and develop their research ideas from this foundation (e.g., Morin, Meyer, et al., 2016; Straatmann, Nolte, et al., 2018; Wee & Taylor, 2018). Yet, foundational statements about employee perceptions regarding the prevalence of change lack robust evidence. Relatedly, a handful of researchers acknowledge that employees might experience multiple and frequent changes as a normal part of work (Bernerth et al., 2011; Cullen-Lester et al., 2019; Kiefer, 2005; Loretto et al., 2010; Alannah E. Rafferty & Mark A. Griffin, 2006), but also without hard data.

While HRM researchers emphasize the importance of understanding antecedents to change reactions, such as employees' historical perceptions of change success (Rafferty & Restubog, 2016), the contextual factor of the current amount of change appears to be ignored. Additionally, prior empirical research has shown that HRM practitioners need to anticipate the impact of change on employees and provide better support (Fugate et al., 2002; Smollan, 2017). Meanwhile, the need to understand how employees experience change at work has gained impetus with the COVID-19 pandemic, which has necessitated employees rapidly changing work practices, places, and conditions as organizations seek to survive (Jesuthansan et al., 2020).While the pandemic may have ongoing ramifications for change, it also illustrates the striking lack of empirical evidence regarding the prevalence of change experienced by employees under more stable economic conditions. We address this

lack of evidence for the benefit of HRM researchers, HRM professionals, and others impacted by change at work.

Past research on change prevalence. Notwithstanding efforts to develop sophisticated measures of change quantity and change types experienced over 12-months (Cullen-Lester et al., 2019), there has been little direct measurement of current change prevalence perceptions. Thus, researchers lack data on typical change prevalence experienced by employees at any one point in time. Recognized antecedents that are critical for understanding employee attitudes to change include change context, change process, change content, and individual-level factors (Armenakis & Bedeian, 1999; Choi, 2011; Devos et al., 2007; Rafferty & Jimmieson, 2017); within this established framework, we position employee perceived change prevalence as part of the antecedent change context.

Most change research is conducted in organizations selected for having a change project affecting employees (Bouckenooghe, 2010; Oreg et al., 2011). Such episodic research, while providing in-depth insights, rarifies change as an extraordinary event. Consequently, employees' reactions are considered in isolation, and without comparison to more "normal" times. Concurrently, evidence has gathered indicating that both intense episodes of changes such as restructuring (de Jong et al., 2016) and reduced job security (Loretto et al., 2010), as well as frequent change (Rafferty & Jimmieson, 2017) and ongoing change (Kiefer, 2005; Loretto et al., 2010), are related to negative employee emotions and reduced wellbeing.

A few studies have measured change prevalence, mostly limited to either a specific sector or under harsh economic conditions, yielding very high estimates. For example, Loretto *et al. 's* (2010) study of the UK National Health Service (NHS) reported that 93.4%

of NHS employees surveyed had experienced some change in the past 12 months. Broader workforce surveys have assessed the impact of economic conditions on employees' experiences of change, including change prevalence. Thus, representatives from 99 Canadian unions revealed that workplace change over the past three years was pervasive, being experienced by 89% of union representatives (Kumar et al., 1999). Similarly, a workplace survey conducted during a severe economic recession in Ireland found a significant increase in the amount of organizational change experienced across the past two years when compared to the same survey completed six years prior (O'Connell et al., 2010) For example, from 2003 to 2009, 10% more private-sector employees experienced company or management restructuring in the past two years, for a total of 44% in 2009 (O'Connell *et al*., 2010). In other words, focusing on only one type of change—restructuring—this was experienced by nearly half of employees.

These studies provide useful evidence of employee perceived change prevalence over longer periods—in these cases, one, two, and three years, or during times of economic instability, and indicate high change prevalence. However, retrospection risks hindsight bias (Hawkins & Hastie, 1990), which could distort employees' judgments of the amount or intensity of change they have experienced. For instance, a change experienced 12 months ago—such as introducing a new shift pattern—may have been perceived as massive at the time, yet in hindsight, the same change may be rated as small, inconsequential, or even forgotten. This is seen in the job satisfaction literature where employees acclimatize to their new job, usually within one year (Boswell et al., 2005). We acknowledge the value of retrospective perceptions of the change experience; indeed, these provide important insights when the issue is, for instance, understanding employees' sensemaking processes around organizational change (e.g., Chreim, 2006; Cullen-Lester et al., 2019). However,

retrospective studies cannot accurately gauge employees' current perceptions of change prevalence. An additional drawback of studies targeting specific change events, within organizations, industries, or across economies, is their neglect of other concurrent changes that may be impacting employees (Rafferty & Jimmieson, 2017). Thus, there is a need to establish benchmarks of change prevalence as perceived by employees.

The need for an employee perspective on change prevalence. Our focus is measuring change prevalence from the employees' perspective and provides three substantial contributions. First, by gathering evidence of employees' perceptions of current change prevalence, our study establishes an accurate baseline measure unaffected by hindsight bias (Hawkins & Hastie, 1990) and supported with evidence of employee emotions. Second, we avoid researchers having to make assumptions or guesstimates relating to the prevalence of change in contemporary organizations by establishing baseline measures based on three countries, the US, Australia, and New Zealand. This baseline will assist HRM researchers in comparing change prevalence across time, events, and countries. Similarly, it provides a practical baseline of change prevalence for HRM practitioners to compare the amount of change in their organization and understand the amount of change activity likely occurring within these countries. Third, we provide empirical evidence of change ubiquity, indicating its usefulness as a change context antecedent in research on employee responses to change. The importance of baseline measurement is illustrated by the relatively frequent but often unsubstantiated claims about change that prevail in existing research, to which we now turn. In briefly reviewing several such studies, we aim to surface underlying assumptions and illustrate the need for better evidence, not to critique these studies' methods or findings.

Referring to change research, Oreg (2018) starts with the premise, “Change in organizations … is not ubiquitous or constant” (p. 2) and yet provides no supporting reference to justify this argument. A second and contrasting example is Stensaker and Meyer (2011), who make claims about the status of workplace change in the introduction, also without any supporting reference: “An increasing pace of change is making employees more experienced with organizational change” (Stensaker and Meyer, 2011, p.106). These examples typify researchers’ contradictory statements of change prevalence as being “not ubiquitous” (Oreg, 2018, p.2) or, conversely, occurring at an “increasing pace” (Stensaker and Meyer, 2011, p.106). Such unsubstantiated statements about the amount of change indicate a need for better evidence.

The present study seeks to provide such evidence by answering the research question: *To what extent are employees currently experiencing change at work?* Our approach is exploratory and addresses a call for increased research from those who “work in the trenches” (Bamberger & Pratt, 2010, p. 666). While uncommon in HRM, such phenomenon-driven empirical research is valuable for providing accurate evidence and supporting theory development (Schwarz & Stensaker, 2014). Indeed, the value of such an approach has been acknowledged by Jebb et al. (2017), who argue that exploratory work should be performed openly, with clear disclosure and, to this end, we provide no *a priori* hypotheses. A large cross-sectional survey design was deemed suitable, comparing across different countries to assess consistency (Spector, 2019), investigating workplace factors that could influence change prevalence, and asking employees how they are responding to change.

2.2 Method

Respondents. We conducted survey research in three counties, the US, Australia, and New Zealand (NZ), in April 2017. These are all Western democracies, predominantly English-speaking, with diverse populations resulting from immigration. They are culturally similar in power distance and uncertainty avoidance (Hofstede et al., 2010). Population size differs across the countries, providing a comparison between large (US 330 million), medium (Australia 25.5 million), and small (NZ 5 million) populations (United States Census Bureau, 2020). Each economy differs in line with this, with 2017 GDP(US$) in the US at 19.5 trillion, Australia 1.3 trillion, and NZ 202.3 billion (World Bank, 2017). All three countries had positive Gross Domestic Product (GDP) growth in 2017: US 2.22%, Australia 2.37%, and NZ 3.13% (World Bank, 2017). All three countries have seen significant shifts in employment from agricultural and manufacturing industries toward service-dominated employment in the past 30 years, with the pace of change particularly rapid for NZ (OECD, 2017).

Survey design. A panel survey was conducted using Qualtrics. We obtained institutional review board permission; the data were collected as part of a longer survey. We set the participation criteria of a minimum of 18 years of age and employed for at least 20 hours per week. Amount of change was derived from Loretto et al. (2010) and altered to suit the focus of this paper on measuring employees' current perceptions of change amount. "Please indicate the amount of change at work you are currently experiencing?", coded 1=none, 2 =minor, 3=modest, 4=moderate, 5=massive. Demographic information included participant age, gender, and education level. Work-related information comprised organization-size (number of employees), organizational tenure, sector, and average work-hours per week. Participants were asked to comment on (1) the types of change they were

currently experiencing at work, and (2) their behaviors and reactions as a result of experiencing change at work.

Data quality assurance. The survey yielded 1,795 responses (US *n*=755, Australia *n*=520, NZ *n*=520). One of the recognized problems with panel data is the potential for careless low effort responding, which can distort results. Consequently, we implemented data cleaning techniques to remove careless responding and extreme outliers (DeSimone et al., 2015) on a per-country basis. The five variables (age, education, tenure, work-hours, and organization-size) were checked for univariate and multivariate outliers, the latter using Mahalanobis distance (DeSimone et al., 2015; Mahalanobis, 1936). Sixty cases that were identified as multivariate outliers, and careless responding and were removed (representing 3.3% of the sample). The cleaned sample comprised *N*=1,735 participants: US *n*=718, Australia *n*=501, and NZ *n* = 516.

Data analysis. Factors included in this analysis were gender, age, education level, tenure, work-hours, sector, and organization-size. We converted age and work-hours into ordinal groups to allow comparison of mean differences within-country [1]. Age was divided into three generational age-groups (adapted from Kowske *et al.*, 2010) of Millennials (18-36 years), GenX (37-56 years), and Baby Boomers (57 years and older). We grouped average work-hours per week into part-time (<35hours), full-time (35-40 hours), and extra-full-time (>40 hours). Table 2-1shows descriptive statistics and correlations for the whole sample, and Table 2-2 by country, which was our focus (Bedeian, 2014). Correlation tables for each country are included in Appendix A (see Tables B, C, and D).

The dependent variable, amount of change, was explored using a series of factorial two-way and one-way ANOVAs to identify simple effects between- and within-groups. Factors identified as being correlated significantly with the amount of change at $p < .01$ were used as independent variables for analysis: Organization-size, age-group, education-level, and work-hours. Post-hoc analysis identified which groups varied significantly; a significance level of $p < .01$ was applied to control family-wise error. First, we compared the between-country variance in amount of change by factor, and then compared variance in amount of change within each country by factor. Due to the uneven sample sizes and variance between many of the groups, we reduced the risk of Type I errors in the post-hoc explorations of variance using the Games-Howell Statistic (GHS) (Games & Howell, 1976). Nonetheless, this statistic is recognized as having limitations, and therefore a conservative *p*-value ($p <.01$) was used to evaluate the significance of differences in means (Ramsey & Ramsey, 2009).

Qualitative comments were on types of change and employee reactions. The first author conducted all initial coding and categorization of change-types and written responses, with the fourth author reviewing all coding. Inter-rater agreement was 86%; each difference was resolved through consultation. Change-type for the whole sample was coded inductively from the open-ended question responses. Responses with more than one change-type were coded as multiple-change to avoid double counting. Finally, for those respondents who reported the greatest amount of change, rating this as moderate to massive, we analyzed their open responses in greater detail. While the participants were asked to provide details of behaviors and reactions to current change, initial analysis identified a preponderance of responses with affect-laden language; consequently, we focused on affect. We coded against a circumplex model of job-related affect (Warr et al.,

2014; Yik et al., 2011). The four groups were High Activation Pleasant Affect (HAPA) characterized by enthusiasm and excitement; High Activation Unpleasant Affect (HAUA) characterized by anxiety, upset, and stress; Low Activation Pleasant Affect (LAPA) characterized by comfort, calm, and relaxation; and Low Activation Unpleasant Affect (LAUA) characterized by sadness, fatigue, and depression. A fifth group, No Affect (NOA), was used to identify statements lacking emotional language.

2.3 Results

Across the whole sample, 73% of employees reported currently experiencing some change, and of these, 42% rated the amount of change as either moderate (4) or massive (5). Figure 2-1 shows employees' current amount of change overall and across the three countries. The proportion of participants experiencing change at work was consistently high but did vary slightly by country: US 73%, Australia 67%, and NZ 78%. Of these, the proportion of those reporting large amounts of change at work (moderate (4) or massive (5)) was also quite similar: US 40%, Australia 47%, and NZ 42%.

Table 2-1

Mean, Standard Deviations, and Correlations for Whole Sample (N= 1,735).

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Amount of change at work[a]	2.65	1.32	-								
2. Age of respondent[b]	45.18	13.41	-.095**	-							
3. Age-group[c]	1.91	.75	-.090**	.920**	-						
4. Gender[d,j]	1.57	.50	.016	-.112**	-.084**	-					
5. Education-level[e]	2.62	1.05	.120**	-.113**	-.128**	-.080**	-				
6. Average work hours per week	37.14	8.80	.116**	-.003	-.005	-.146**	.101**	-			
7. Work-hours[f]	1.94	.72	.108**	.021	.015	-.142**	.094**	.896**	-		
8. Tenure[g]	9.17	8.30	-.024	.451**	.411**	-.100**	.021	.188**	.158**	-	
9. Firm-size[h]	3.36	2.02	.209**	-.058*	-.058*	-.036	.159**	.174**	.137**	.100**	-
10. Sector[i,j]	1.31	.46	.055*	.075**	.085**	.156**	.045	-.036	-.039	.084**	.238**

Note. [a]1=none, 2=minor, 3=modest, 4=moderate, 5= massive; [b]years; [c]1=Millennial, 2=GenX, 3=Boomers; [d]1=male, 2=female [e]1=high-school, 2=technical, 3=bachelors, 4= post-graduate; [f]1= part-time, 2=full-time, 3=extra-full-time; [g] years with organization; [h]employees in the organization; 1=<50, 2=50-100, 3=101-250, 4=251-500, 5=501-1000, 6=>1000; [i] 1=Private, 2=other; [j]point-biserial correlation

N=1735, *$p \leq 0.05$ level, **$p \leq 0.01$

Table 2-2

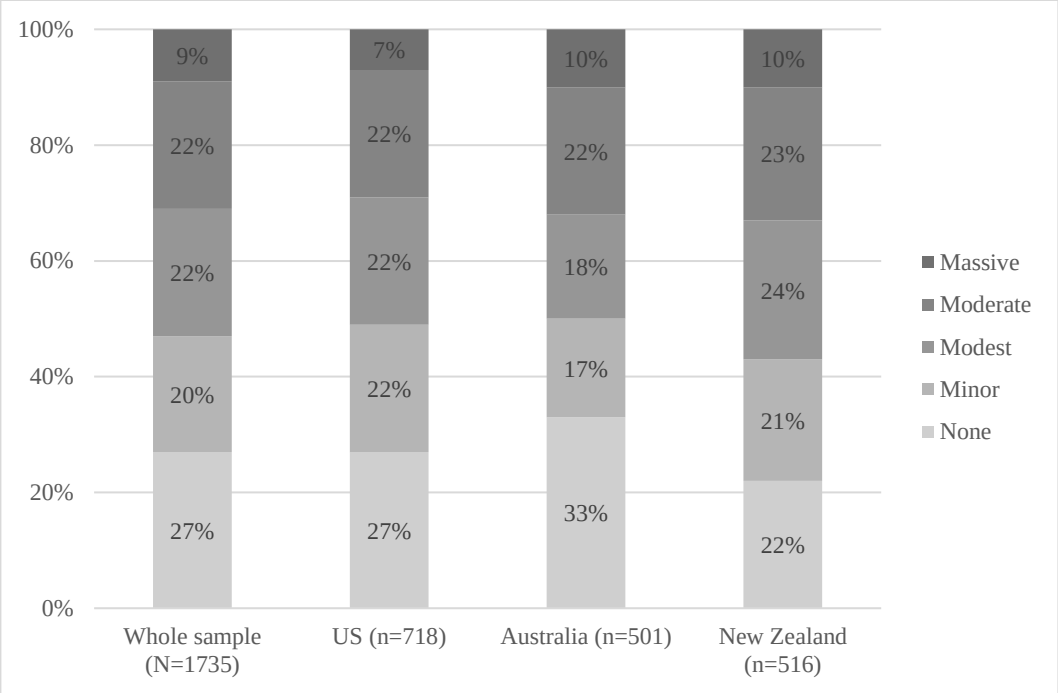
Frequencies, Means, Standard Deviations, and Correlations with Amount of Change at Work for US, Australia, and New Zealand

	US *n*=718				AUS *n*=501				NZ *n*=516			
Factor	*%*	*M*	*SD*	*r*	*%*	*M*	*SD*	*r*	*%*	*M*	*SD*	*r*
Gender												
Male	41	1.59	.49	-.067	48	1.52	.50	.056	42	1.58	.49	.083
Female	59				52				58			
Sector												
Private	68	1.32	.47	-.017	71	1.29	.45	.093*	67	1.33	.47	.113*
Other	32				29				33			
Firm-size[a]												
<50	23				34				37			
50-100	10				14				14			
101-250	11	3.75	1.98	.199**	9	3.18	2.04	.274**	10	3.01	1.98	.188**
251-50	12				10				10			
501-1000	12				8				8			
>1000	32				25				21			
Education												
High School	15				24				24			
Technical	11	2.90	1.00	.095*	28	2.41	1.04	.166**	25	2.45	1.04	.137**
Bachelor	43				21				34			
Post-graduate	31				17				17			
Employment												
Part-time	23	2.00	.69	.069	34	1.86	.73	.112*	30	1.95	.74	.153**
Full-time	53				45				45			
Extra-full-time	24				21				25			
Generation												
Millennials	34	1.94	.78	-.151**	28	1.97	.72	-.059	37	1.83	.73	-.016
GenX	38				48				45			
Baby boomers	28				25				20			

Note. *r*= correlation between the factor and the current amount of change for each country. [a]firm-size by employee number.
*$p \leq 0.05$ level, **$p \leq 0.01$

Figure 2-1

Employees Current Amount of Change at Work Across the US, Australia, and New Zealand



We examined correlations to determine which variables were associated with amount of change. Focusing on the nonsignificant and very weak correlations, neither gender nor tenure showed a significant relationship with amount of change either for the whole sample (gender r=.016, tenure r=-.024, *ns*), nor when the correlations were reviewed by country (US r_{gender}=-.067, r_{tenure}=-.053; Australia r_{gender}=-.056; r_{tenure}=.028, NZ r_{gender}=-.083; r_{tenure}=.002, all *ns)*. Sector also showed a very weak correlation with amount of change for the whole sample, r=.055 (p > .01). Therefore, we excluded gender, tenure, and sector from further analysis.

Moving to the factors showing slightly larger and significant correlations. Organization-size was weakly to moderately positively correlated with amount of change for all countries (US, r= .199, Australia, r=.274, NZ, r=.188, p's < .01). Education was weakly positively correlated with amount of change (US, r=.095, p < .05, Australia, r= .166, p < .01, NZ, r= .137, p < .01). Work-hours revealed no significant relationship with amount of change for US and Australian employees, but for NZ employees, hours were weakly correlated with amount of change (r= .153, p < .01). Age-group was negatively correlated with amount of change only for US employees (r=-.151, p < .01), with no significant relationship for Australian or NZ employees. These four factors were analyzed further, namely: Organization-size, education-level, work-hours, and age-group.

Country comparison of amount of change. The mean amount of change experienced at work was compared by country using a one-way ANOVA. This revealed a small effect that was significant at p < .05, but not at the more conservative p < .01 chosen, F (2, 1732) =3.801, p= .023, ω^2=.004. A post-hoc cross-country comparison using the GHS showed NZ employees experiencing marginally more change at work than their American or Australian counterparts, ($M\Delta_{NZ\text{-}US}$=.177, p=.047; $M\Delta_{NZ\text{-}AUS}$=.206, p=.038) though not

significant at p <.01. There was no evidence of a significant difference between US and Australian employees ($M\Delta_{US\text{-}AUS}$=.029, p=.926). Overall, these findings indicate negligible differences in the amount of change experienced by country.

Organization-size and amount of change. We compared the mean amount of change at work by organization-size across countries using two-way factorial ANOVA. Amount of change varied significantly with organization-size, F (5, 1729) =17.438, p=.000; however, the two-way interaction between country and organization-size was not statistically significant, F (10, 1717) =0.839, p=.591. One-way ANOVAs conducted separately for each country revealed a relationship between organization-size and amount of change, which was small for the US and NZ: US, F (5, 712) = 7.383, p=.000, ω^2= .043; and NZ F (5,510) = 4.595, p=.000, ω^2=.034, and a medium-sized effect for Australia, F (5,495) =8.477, p=.000, ω^2=.069. Post-hoc analysis using the GHS across each country identified that those in organizations with fewer than 50 employees reported less change than those in organizations with 1,000 or more employees (US $M\Delta_{<50->999}$ =-.72, Aus $M\Delta_{<50->999}$ = -.88, NZ $M\Delta_{<50->999}$ =-.60, p=.01). Yet, most participants working in the smallest organizations were still currently experiencing change at work (US=62%, Australia=54%, NZ=69%). Thus organization-size is positively related to amount of change experienced: Those working in larger organizations are more likely to be experiencing change, however employees working in small organizations were still often experiencing change.

Education-level and amount of change. We compared participants' education-level and amount of change by country using two-way factorial ANOVA. Mean amount of change at work varied significantly by education-level across four levels, ranging from high-school, technical or polytechnic, bachelor's degree, or graduate degree, F (3, 1723) =

9.830, p=.000; although the two-way interaction between country and education-level was not significant F (6, 1723) =1.166, p=.322. Hence, we tested the relationship between education-level and amount of change within country using one-way ANOVA; this was nonsignificant for US employees, F (3,714) =2.418, p=.065; whereas Australian and NZ employees showed a small effect; Australia F (3, 497) =4.790, p=.003, ω^2= .022; and NZ F (3, 512) =5.114, p=.002, ω^2=.023. Post-hoc analysis using the GHS revealed employees with high school education experience less change than employees with either bachelors or postgraduate qualifications (Australia $M\Delta_{HS\text{-}PG}$=-.663, p=.003; NZ $M\Delta_{HS\text{-}Bach}$=-.584, p=.001). Despite this, most employees with high school education were still experiencing change (US=67%, Australia=53%, NZ=68%). Thus, employees in Australia and NZ with education beyond high school experience a slightly greater amount of change, although these differences are within the context of all employees experiencing high levels of change.

Work-hours and amount of change. We compared the effect of part-time (<35 hours), full-time (35-40 hours), and extra-full-time (>40 hours) work-hours per week, on amount of change experienced between the three countries using two-way factorial ANOVA. Amount of change experienced differed significantly, F (2, 1734) =10.427, p=.000, although the two-way interaction between country and work-hours was nonsignificant, F (4, 1734) =1.178, p=.319. One-way ANOVA for each country revealed small effects for NZ employees, F (2,513) = 6.5839, p=.002, ω^2=.021, yet no significant effect for US, F (2, 715) =2.149, p=.117 or Australian employees, F (2,498) =4.048, p=.018. Post-hoc analysis using GHS revealed NZ part-time employees were experiencing significantly less change than extra-full-time employees ($M\Delta_{PT\text{-}EFT}$=-.522, p=.002). Given these small effects related to work-hours, overall, the evidence does not suggest that those

in part-time work are protected from experiencing change when compared with those in full-time or greater employment.

Age-group and amount of change. Finally, we compared amount of change by Millennial (18-36 years), GenX (37-56 years), and Baby Boomer (57 and older) age-groups between countries in a two-way factorial ANOVA. Amount of change experienced was found to differ significantly by age-group, F (2, 1726) =5.382, p=.005. Also, there was a significant two-way interaction between country and age, F (4, 1726) =3.394, p=.009. US participants differed significantly in amount of change by age-group, F (2, 1726) =9.418, p=.000; whereas there was no significant difference in amount of change according to age-group for Australian, F (2, 1726) =3.125, p=.044, and NZ employees, F (2, 1726) = 1.038, p=.354. A one-way ANOVA for US employees confirmed significant mean differences in amount of change by age-group with a small effect, F (2,715) =9.967, p=.000, ω^2 =.041. Post-hoc analysis using the GHS revealed US Millennials reported significantly higher amounts of change than GenX or Baby boomer groups, ($M\Delta_{Mil\text{-}GenX}$=.418, p=.001; $M\Delta_{Mil\text{-}BB}$=.483, p=.000; $M\Delta_{GenX\text{-}BB}$=.065, p=.845), although these differences were small. Overall, there were no differences for Australian or NZ employees across age cohorts, but US millennials indicated experiencing slightly more change.

Analysis of open-ended comments. We asked employees about the change-types currently being experienced. Of the 1,264 employees currently experiencing change at work, 912 provided comments on change-type. Our analysis identified seven distinct change-types, plus an eighth group experiencing multiple-changes. (For further detail see Table A in the **Appendix A** supplementary materials). The change-type groups identified were (1) multiple-changes (28%, 259/912); (2) changes to job tasks (19%, 169/912); (3) restructuring and downsizing (16%, 146/912); (4) new technology (10%, 95/912); (5)

changes to working conditions (9%, 87/912); (6) staffing or management changes (9%, 80/912); (7) organization expansion and growth (5%, 42/912); and (8) ownership changes and mergers (4%, 34/912).

Our second open-ended question asked for employees' behaviors and reactions to experiencing change. Employees indicating higher amounts of change—moderate (4) or massive (5) (*n*=583)—were more inclined to provide detailed accounts and thus were the focus of our analysis. Of these, 233 contained affect-rich, emotional language. Figure A in the **Appendix A** supplementary material shows the distribution of coded affect-rich language. A significant feature of employee responses was the high proportion, 59% (137/233), using HAUA language (e.g., "Becoming more *stressed* every day"; "*Uncertainty, confusion, anxiety"*). The next largest group was HAPA (e.g., "Very *happy* for the changes"; "I am *enjoying* the upgrades"), comprising 18% (43/233) of responses. LAUA comments were less common (e.g., "*sad* for some staff members to leave"; *"disappointed* at the cost-cutting"), making up 11% (26/233). Finally, LAPA responses (e.g., "I am *good* either way"; "I am *fine* with the changes") accounted for only 12% (27/233) of responses. This imbalance of response types, with HAUA predominating, suggests experiencing higher amounts of change is taking an emotional toll on many employees.

2.4 Discussion

This study provides evidence of the current amount of change experienced by employees in three countries, investigating trends according to demographic and job factors. This achieves our objective of providing foundational evidence to support statements of change prevalence. Three-quarters (73%) of participants reported currently

experiencing change, and of these, 42% rated this as moderate to massive. Thus, for employees, the experience of change seems ubiquitous, with moderate to massive amounts of change common.

There is a small amount of variability across countries; however, taken together, results for the US, Australia, and NZ are remarkably similar. Detailed analysis of the mean differences between- and within-country by organization-size, education-level, work-hours, and age-group, revealed few groups experiencing significantly less change, and even within these groups, more than 50% of employees were experiencing change. The strongest trend related to organization-size, with those working in larger organizations experiencing more change than those in smaller organizations. However, the effect size was small, and indeed, working in a smaller organization did not preclude experiencing workplace change. When we look back at statements in the change literature which motivated our research, our findings support Stensaker and Meyer (2011) and others who contend change is a common part of work (Straatmann, Nolte, et al., 2018) and negates those who assert change is uncommon (Oreg, 2018).

While we asked employees broadly about their reactions to change, their responses predominantly depicted intense emotional experiences. This is in line with past research identifying the central role of affect in employees' responses to change (e.g., Rafferty & Jimmieson, 2017; Smollan, 2017). A quote from one US participant illustrates this point:

> Employees are *stressed* and *frustrated* and take their *anger* out on other coworkers by not helping out and delaying resolving of issues because most are just too *burnt out* or *stressed* to be operating productively.

Consequently, we focused on the affect-rich responses provided by employees experiencing the most change. These reveal a picture of adapting to change, but often at a personal emotional cost. While these findings are tentative, in line with the often negative impacts of workplace change (de Jong et al., 2016), they highlight the risk that the large amount of workplace change currently being experienced could contribute to negative wellbeing for many employees. This warrants further investigation through longitudinal studies to understand whether HAUA emotions translate into adverse long-term employee outcomes.

Many of the unpleasant affective responses (HAUA and LAUA) also included a compliance element, appearing in some cases to have the characteristics of "learned helplessness" (Maier & Seligman, 1976), (e.g., "You just have to go with it, …, accept the change"; "Just rolling with the punches - there's no alternative"; "The workload is such that the only possible response is to keep working the same as always, just with fewer people."). Such responses signal suboptimal adaptation, given a situation without options.

Implications for future research. First, our evidence of change ubiquity suggests employee perceived change prevalence is a critical aspect of change context (Armenakis & Bedeian, 1999; Choi, 2011), that should be assessed as an antecedent variable in employee change research and in HRM research more broadly. We encourage micro-level change and HRM researchers to include perceived change prevalence when investigating employee responses to change. We also encourage HRM researchers to include employee perceptions of change prevalence as potential antecedents in future theoretical models, considering how employees' assessment of overall change prevalence shapes attitudes to episodes of change and outcomes such as wellbeing and performance. Change prevalence might also be

included as a control variable to capture the impact of change occurring within the work environment.

Second, our finding that most employees are currently experiencing change raises the question of which paradigm is most appropriate for micro-level investigations of organizational change. Weick and Quinn (1999) distinguished between two over-arching paradigms of organizational change. One paradigm is episodic, viewing change as infrequent, discrete, planned, and top-down, and reflecting a macro-perspective (Weick & Quinn, 1999). The second paradigm is continuous change, where change is "ongoing, evolving, and cumulative" (Weick and Quinn, 1999, p.375), and viewed as more appropriate for micro-level change research (Tsoukas & Chia, 2002). Of these two, the episodic perspective dominates much of the change literature today (e.g., Bouckenooghe, 2010; Müller & Kunisch, 2018), whereas the continuous paradigm is less common (Wee & Taylor, 2018). While both approaches are important to HRM, the episodic approach may overlook other concurrent changes limiting our understanding of employees' ongoing and overlapping change experiences. Hence, an episodic perspective may restrict our ability to have a positive practical impact, which might be especially of concern to HRM practitioners. Our finding suggests that change is continuous for many employees, and hence wider adoption of the continuous paradigm could accelerate progress in impactful micro-level research.

Third, because we sought to explore employees' perspectives on change, we asked employees to describe the changes they were currently experiencing rather than providing predetermined categories. This captured employees' experiences directly, thus addressing the criticism leveled at HRM research that a management perspective dominates (Boselie et al., 2005). Multiple-changes were most prevalent, reported by 28% of those experiencing

change, therefore we recommend future researchers provide a list of common change-types, potentially using the seven types identified above or more detailed lists such as that developed by Cullen-Lester *et al*. (2019) and allowing participants to indicate multiple concurrent changes. This increased detail would allow exploration of how employees react to different change types and investigation of associated outcomes, such as wellbeing and performance.

Fourth, in our qualitative findings, employees provided mainly emotional reactions, which were predominantly negative. This underlines the importance of collecting affective responses to change at work (e.g., Bhattacherjee et al., 2018; Rafferty & Jimmieson, 2017; Smollan, 2017). Further, we emphasize that workplace changes—such as increased workload or learning new technology—often create a negative emotional response. We recommend further investigation of the links between change-types, change-related emotions, change capability development, and employee responses to change.

Finally, our findings provide evidence of change ubiquity for employees in three countries, providing a baseline. We recommend HRM researchers measure employee perceived change prevalence at regular intervals and in a wide range of economies and cultures to build a richer picture of this phenomenon. This would be especially useful beyond Western economies. While the COVID-19 pandemic is undoubtedly a case in point where multiple and ongoing changes are being experienced by most— if not all (Sanders et al., 2020) — employees, ongoing measurements would gauge the rate at which fluctuations are occurring, and whether amount of change experienced is generally increasing, decreasing, or remaining stable. Further, it would enable organizations to benchmark the workforce's amount of change locally and internationally, providing a useful tool for data-driven HRM professionals.

Implications for organizations. For managers and HRM advisors, knowing that most employees perceive they are experiencing change could help when planning and implementing change. Prior exposure to change is likely to influence employees' reactions to and coping with change events, concurrently increasing capability but also passivity (Stensaker and Meyer, 2011). Relatedly, substantial evidence indicates that certain types of change, such as restructuring, have adverse health outcomes for employees (de Jong et al., 2016) and may impair task performance (Oreg, 2018). Further, the frequency of change is positively related to turnover intention through increased employee uncertainty (Rafferty and Griffin, 2006). HRM professionals are recognized to have an important role in providing and facilitating employee support during change (Smollan, 2017), and understanding of change prevalence would allow practitioners to target support initiatives. We recommend HRM professionals asking employees how much change they are currently experiencing, thus providing valuable information to develop appropriate HRM strategies, decide on change priorities, and support change activities.

Second, benchmarking employee perceived change prevalence against a country, industry, or organization-size norm could be a useful, practical tool for HRM practitioners. For example, if employees report comparatively low levels of change, this could indicate further capacity for change or that change is not impacting certain groups of employees. Conversely, higher overall levels of change prevalence may indicate the need to monitor and mitigate any harmful effects of change on employees' wellbeing and performance.

Third, as we write this amid the COVID-19 pandemic, most employees are facing a range of workplace changes, including restructuring, remote working, social distancing, and new tasks (Jesuthansan et al., 2020). Under such a colossal change load, employers should carefully consider whether employees can cope with any additional change initiatives. In

particular, we emphasize our finding that employees experiencing massive amounts of change were also likely to talk about stress and negative emotions. In situations of extreme change, employers should consider adding support for employees and delay nonessential initiatives until employees' experiences of workplace change return to more normal levels.

Organizations must change to survive (Tsoukas & Chia, 2002), implying that effective management of workplace change is critical for employees and organizations (Morin, Meyer, et al., 2016). Our finding that change at work is commonplace for many employees supports this picture of ongoing change. HR professionals have a strategic role to play in implementing change (Bamber et al., 2017), but depend on employees for implementation (Oreg et al., 2018). Incorporating employee voice in strategic decision-making processes around change, including gaining insights on employees' affective states, may benefit all parties.

2.5 Limitations

Our cross-sectional approach is appropriate for an exploratory study (Spector, 2019), providing a snapshot in time. Although we identified no specific political, economic, or social events in 2017 that would affect employee responding, nonetheless, these may have occurred and influenced the results. Our exploratory study focuses on three countries, with data from many more countries needed to gauge the ubiquity of change from an employee perspective. For example, the three countries investigated have low power distance and weak uncertainty avoidance (Hofstede et al., 2010). Contrasting these could provide insights on employee perceived change prevalence in countries that differ on these parameters. Overall, we recommend comparing countries globally to gain the fullest picture of change prevalence and intensity.

2.6 Conclusion

Our study provides evidence of the pervasive nature of change at work for employees in the US, Australia, and NZ. As of 2017, approximately three-quarters of employee participants were experiencing change, with minimal differences across organizational, demographic, and job characteristics. Our findings support researchers arguing that change is ubiquitous (Kiefer, 2005; Morin, Meyer, et al., 2016; Stensaker & Meyer, 2011); and that, for employees experiencing the greatest amount of change, they commonly experience highly-activated unpleasant affect, such as frustration and anxiety. Multiple changes and complex change, such as restructuring, dominated the reported change-types and were reported more frequently for those experiencing the greatest change. We position employee perceived change prevalence as a critical aspect of the change context: Given high perceived change prevalence and its association with unpleasant emotions, future HRM research and practice would be well-advised to measure change prevalence as an essential consideration.

Notes

1. Note that if the scales were left as continuous, the groups would have been numerous, as many as forty for some variables, and the sample size within each group too small for meaningful comparison. While our chosen grouping approach reduces variance, indications of general effects between groups were prioritized.

CHAPTER 3: Employee Reactions to Change: A Systematic Meta-Review and Employee-Centric Conceptual Model

Chapter 3 - Preface

Chapter 3 explores the literature on employee reactions to change. My goal was to identify which constructs would be most important to include in an employee-centric perspective. Hence, the review literature was the logical place to start because reviews already aggregate and analyze the key constructs. More specifically, I conducted a meta-review—a review of articles—in order to consolidate the vast empirical change literature and because of the availability of good quality reviews in the past twenty years. This meta-review was conducted systematically and encompassed the review papers on change recipients' reactions, occupational health, job design, and adaptive performance. I identified the aspects of this literature essential to include and adapt to develop an employee-centered perspective on change. The employee-centric framework developed here, in Chapter 3, informed the qualitative review conducted in Chapter 4 and the measurement tools and models used in the empirical studies in Chapter 5.

The initial meta-review was submitted to The Journal of Applied Behavioral Science in 2018, where it was reviewed and rejected. The paper has been further developed in a paper review workshop at the ANZOPOB conference in 2019 and was presented at ANZAM Conference in Cairns in 2019 to gather further feedback. I extended the literature search in February 2021 to capture newer reviews and reworked the paper to capture feedback and incorporate the new findings. I plan to conduct a final update at the end of this year to capture any further 2021 reviews and submit the paper in 2022 for publication.

3.1 Introduction

Progressive change in organizations depends on employees successfully adopting and adapting to change in their work environment. The COVID-19 pandemic has revealed that employees can rapidly adapt to a changing environment, ensuring that organizations continue to function (Carnevale & Hatak, 2020). Nevertheless, across the organizational change literature, authors rarely position people as active participants in implementing change, a significant gap identified by scholars in this field (e.g., Bartunek & Jones, 2017; Oreg et al., 2018). In the occupational health literature, change is frequently linked to adverse health and well-being effects for employees (e.g., Bamberger et al., 2012; de Jong et al., 2016), yet neglected to provide an in-depth analysis of the individual-level mechanisms that lead to these outcomes (Bambra et al., 2009). In an attempt to rectify the passive and negative representation of change recipients and their reactions to change, scholars have proposed investigating individuals' efforts to cope with and enact organizational change through a multidimensional lens positively (Oreg et al., 2018; Piderit, 2000; Vakola, 2016). However, we know that changes can have positive outcomes for employees, as demonstrated in the field of job redesign (Knight & Parker, 2021), that employees can be highly adaptive (Park & Park, 2020) and even proactive in change settings (Parker et al., 2010).

The employee reactions to change literature has become increasingly complex with a multitude of antecedents (Armenakis & Bedeian, 1999; Rafferty et al., 2013), with complex tridimensional mechanisms describing change attitudes from Piderit (2000) and Herscovitch and Meyer (2002), and both distal and proximal outcomes of change reactions (Wanberg & Banas, 2000). Person-centered research is modestly present in the change reaction literature with recent studies by Straatmann, Rothenhöfer et al., (2018), who apply

the theory of planned behavior (Ajzen, 1991) and a small study by Seppälä et al. (2018) apply the job demands-resources theory (Bakker & Demerouti, 2017) in a restructuring context. However, these models do not draw from the traditions and models commonly applied in the change literature, instead of drawing on occupational health models. The present study aims to consolidate and integrate the employee reactions to change literature by analyzing empirical change research reviews to identify the critical components used to build a person-centered perspective on employee responses to change.

To date, the majority of quantitative research on change adopts a variable-centered approach using techniques such as regression and structured equation modeling. Variable-centered techniques produce a parsimonious interpretation across a population of how certain variables interact. These approaches, however, lack specificity, meaning they fail to precisely describe individuals in the population (Howard & Hoffman, 2017). On the other hand, person-centered approaches are methodological approaches that cluster individuals in a population based on emergent profiles indicated from a combination of variables or characteristics of that sub-population (Hofmans et al., 2020; Howard & Hoffman, 2017). The person-centered approach is configurational and typological.

Returning to the employee reactions to change literature, as stated earlier, increased complexity and nuance in the study of employee reactions is needed. A possible vehicle for this could be through the application of a person-centered perspective. Person-centered research needs to have a theoretical and conceptual basis even though an exploratory approach is integral to the methodology (Howard & Hoffman, 2017; Woo et al., 2018). This review intends to build a theoretical and conceptual foundation for a person-centered perspective on employee reactions to change. By integrating the reviews, it should be possible to identify the critical variable to consider as indicators of distinct patterns of

change reactions. Additionally, by considering adjacent research fields, identifying the antecedents of profile membership and outcomes to differentiate between types of change reactions. We ask these questions to build a person-centered theoretical framework as a launch point for future person-centered exploration of employee reactions to change at work.

The rationale for the meta-review. Leading scholars increasingly recognize reviews as essential vehicles for advising theorizing in a field, instigating new research agendas, and advancing theory (Breslin & Gatrell, 2020; Post et al., 2020). In this meta-review, we seek to identify the cornerstones of a person-centered perspective for employee change reactions. The traditional organizational change literature is vast and rich, with considerable research at the individual level. Several influential review papers of empirical studies such as Oreg et al. (2011) have attempted to consolidate this knowledge. We aim to integrate further this knowledge of employee reactions research and broaden the boundaries of this field by including reviews from occupational health, adaptive performance, and job design. Our primary objective is to synthesize the salient themes into a conceptual framework for future employee-centered change research. We adopt this approach to recognize what scholars in this field have already established from traditional change research and use it to underpin this newer person-centered perspective. We hope to avoid being constrained by the theoretical straightjacket (Schwarz & Stensaker, 2014) that scholars argue holds back individual-level change research.

The research questions guiding our study are: What are the main components or indicators used to describe the mechanisms of employee reactions to change? What antecedents are linked with the manifestation of these mechanisms? What outcomes are associated with employee change reactions?

Our meta-review makes two major contributions. First, we summarize current evidence on the antecedents, reactions, responses, and outcomes of change related to employees into a single conceptual model, providing a valuable bridge to existing knowledge and a foundation for future research. Second, we leverage our new framework to show its utility in providing fresh perspectives toward person-centric organizational change research. We aim to achieve this consolidation of past research by synthesizing current review papers – a meta-review (Gough et al., 2017) – of individual-level research findings of employees and change at work. We structure our meta-review using a systematic review process to ensure broad coverage of the literature identifying relevant reviews and meta-analyses of primary research related to employees' reactions to change. We synthesize these reviews into an organizing framework, taking a person-centered perspective on organizational change. We also take the opportunity to critically appraise current organizational change literature to identify research design recommendations for a person-centric focus in future research.

3.2 Method

We conducted a systematic meta-review of review articles, including meta-analyses, published in peer-reviewed journals. Systematic reviews aim to provide transparency of the process, inclusivity of design, explanatory interpretation, and heuristic communication, providing a practically usable output (Denyer & Tranfield, 2009) that advances theory (Post et al., 2020). Our method for this meta-review is drawn from Denyer and Tranfield (2009), who recommend five steps comprising: (1) question formulation; (2) locating studies; (3) study selection and evaluation; (4) analysis and synthesis; and (5) reporting and usage.

Social science and systematic qualitative systematic review searches are commonly guided by the distinct identifying aspects of: context or setting, intervention or phenomenon of interest, mechanisms, and outcomes (CIMO) (Booth, 2016; Denyer & Tranfield, 2009). These provide the basis for the search terms (see **Appendix B**). The context for this meta-review is organizations and, more specifically, those working in the organizations as employees. Organizations are functional and administrative structures, and the personnel who work within these structures, for example, businesses, government departments, hospitals, charities. Employees can be frontline workers, managers, and even change agents. Our definition of organizational change is deliberately broad to ensure our search was comprehensive, yielding all possible relevant reviews and minimizing bias resulting from selecting only some forms of organizational change (Suddaby & Foster, 2016). Thus we included discrete episodes of change, continuous and ongoing changes but excluded within-employee change interventions such as improving employee engagement. We focus on employees' psychological mechanisms, referred to as reactions or responses, triggered by change at work. Meta-review question. How do employees respond and react to organizational change, and what are the antecedents, mechanisms, consequences, and outcomes for these employees?

Locating studies. Given our aim of integrating knowledge across disciplinary areas, we selected the Scopus database because it provides extensive multidisciplinary indexing of peer-reviewed publications across social, health, life, and physical science publications (https://www.elsevier.com/solutions/scopus). In designing the search strategy, we capture common phrases and keywords used in the organizational change literature related to the meta-review question. Our search was limited to reviews of primary research published between 2001 and February 2021. Following the initial database search, to

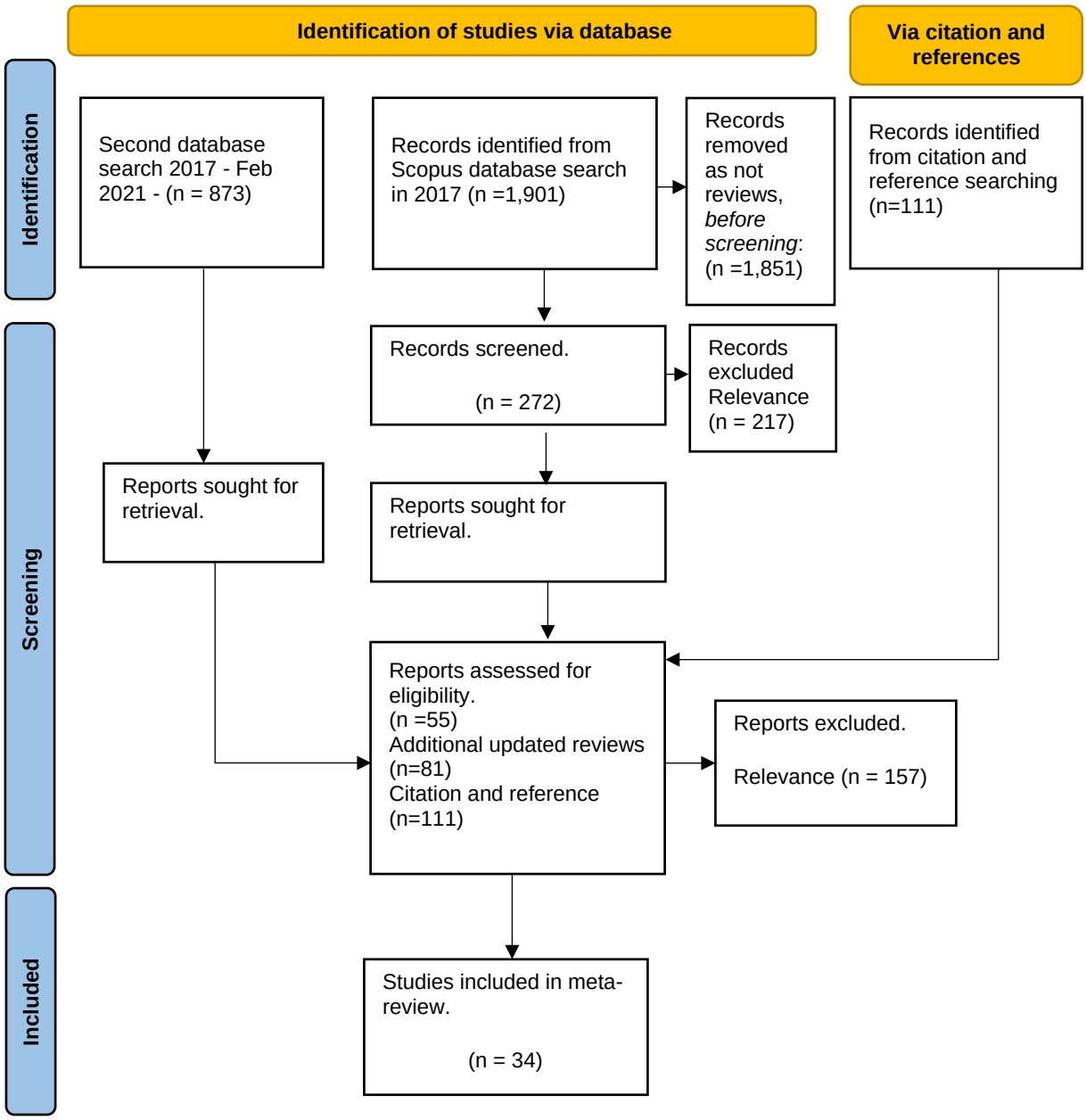
maximize coverage of the literature and ensure inclusivity and relatedness, we searched for references and citations of the selected reviews (Booth, 2016; Gough et al., 2017) to identify additional reviews.

Study selection and evaluation. We included reviews if they met all the following criteria: (1) the setting was organizations with aspects of organizational change, including any change that affected employees and their work. (2) A review paper of primary research studies published elsewhere as its central focus. (3) The review included evaluations and, where available, individual-level mechanisms related to organizational change and employees, for example, reactions, responses, and consequences (4) Published in English, in a peer-reviewed journal, between and including 2001 and February 2021. We exclude reviews on the following criteria: (1) interventions specifically targeting within person-change; (2) theoretical or conceptual papers; (3) literature reviews with primary research. (4) reviews in non-edited books. The screening took place in three phases, led by the first author and discarding articles that did not meet the screening criteria outlined above. A flow diagram of the search process is provided in Figure 3-1 using the PRISMA format (https://www.equator-network.org/reporting-guidelines/prisma/).

Analysis and synthesis. For the final reviews identified, the first author extracted the primary studies' objectives and details, including the type of review, where available, the context, organizational change setting, employee characterization, the individual level change constructs, antecedents, and outcomes. Following this step, we used an iterative process to identify the key component of the conceptual employee-centered framework (see Figure 3-2).

Figure 3-1

Flow Diagram of the Search and Selection Process used in the Meta-review



3.3 Results and Synthesis

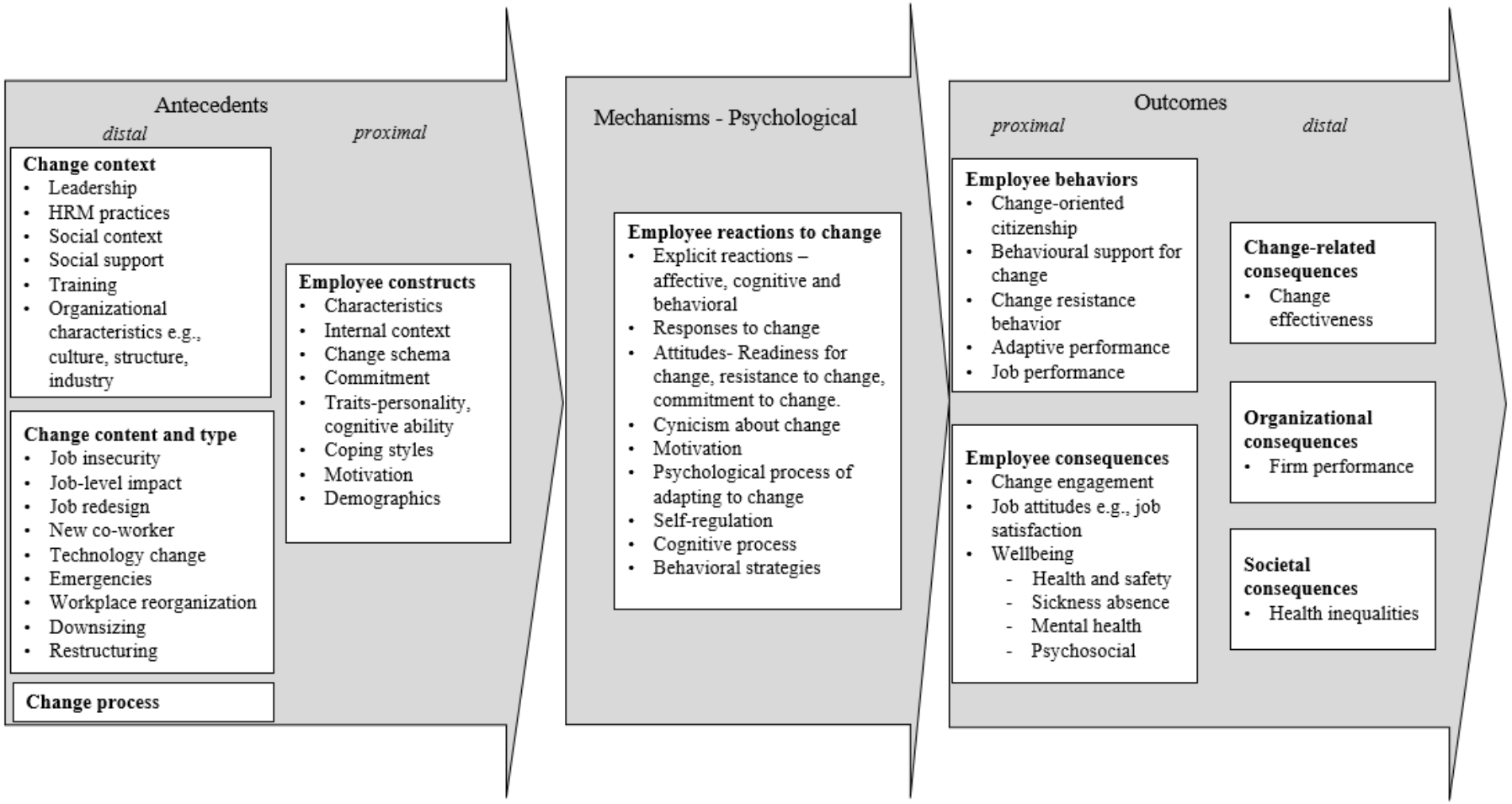
We identified 34 relevant reviews for inclusion in the meta-review; the review results are summarized in **Table *3-1***(please see Appendix B Table B1 for further details of each review). The reviews included at least 879 primary studies; studies reported in multiple reviews were only counted once. This is not a complete total as some reviews provided insufficient information to enumerate and identify the included studies. Of the primary study research designs analyzed in the 34 reviews, most primary studies were quantitative. We also note that the quantitative studies included exclusively adopt a variable-centered approach.

We introduce an employee-centered conceptual model of reactions as the output of the synthesis of this meta-review (see Figure 3-2). Employee reactions to change are the central psychological mechanism within this model; these are the attitudes, thoughts, feelings, and intended behaviors of employees in response to changes at work (Bouckenooghe, 2010; Oreg et al., 2018). Also, they are the internal processes that occur across time with change as the employee transitions through change (Elrod & Tippett, 2002). Within the change literature, antecedents to change reactions are frequently divided into four main groupings: change context, change content, change process, and individual or employee constructs (Armenakis & Bedeian, 1999; Choi, 2011). We segment these four groupings into proximal and distal elements to indicate their positioning in a person-centered perspective. We view proximal elements directly representing employee-related constructs. For antecedents, these are the employee characteristics and for outcomes, these are the employee outcomes, behaviors, and consequences. Distal elements are those external to the employee; as antecedents these are change context, change content, and

change process, and as outcomes these are change-related, organizational, and societal consequences.

Figure 3-2

An Employee-Centric Conceptual Model of Reactions to Change



Note: Bullet point text denotes the themes identified in the meta-review.

Psychological mechanism focused reviews. Our conceptual framework's central and fundamental element is employee reactions to change, representing the individual-level mechanism underpinning how employees react to change. Five attitudinal constructs dominate this set of reviews: readiness to change (Armenakis & Harris, 2009; Bouckenooghe, 2010; Choi, 2011; Holt et al., 2007; Oreg et al., 2011; Rafferty et al., 2013), commitment to change (Bouckenooghe, 2010; Bouckenooghe et al., 2015; Choi, 2011; Jaros, 2010; Oreg et al., 2011), resistance to change (Bouckenooghe, 2010; Erwin & Garman, 2010; Oreg et al., 2011), openness to change (Bouckenooghe, 2010), and cynicism about organizational change (Choi, 2011; Thundiyil et al., 2015). Two meta-analyses focused on building the construct clarity of change attitudes, namely commitment to change (Bouckenooghe et al., 2015) and cynicism about organizational change (Thundiyil et al., 2015). The present body of reviews focuses on presenting frameworks to organize the field and making recommendations for conceptual and definitional clarity. One review, Elrod and Tippett (2002), focused on psychological process theories in reaction to employ reactions, noting that employee change attitudes followed a consistent emotional dip pattern before eventually accepting change.

The antecedents of employee change reactions in this group of reviews were derived from the influential Armenakis and Bedeian (1999) review of employee reactions to change research and therefore grouped as change content, change context, change process, and individual-level constructs. At the same time, this group of antecedents provided common evidence of causal relationships between these factors, and employee reactions to change were rare in these reviews. The outcomes and consequences of employee change reactions were rarely considered in these reviews and limited to either the Herscovitch and Meyer (2002) change supportive behavior or work-

related consequences such as job satisfaction and organizational commitment. None of the reviews explained the linkage of these proximal outcomes to the more distal outcomes of change success or failure or broader organizational outcomes.

Criticism of research design and recommendations for improvements were also common themes in these reviews. Recommendations included: reduce the use of cross-sectional, single source, self-report studies (Erwin & Garman, 2010; Jaros, 2010; Oreg et al., 2011; Rafferty et al., 2013; Vakola et al., 2013); conduct more longitudinal research of better quality (Bouckenooghe, 2010; Oreg et al., 2011; Vakola et al., 2013); adopt a greater variety of research designs, including using person-centered analysis techniques (Bouckenooghe et al., 2015; Erwin & Garman, 2010; Jaros, 2010), conduct more multilevel research (Rafferty et al., 2013), and more qualitative research (Bouckenooghe, 2010; Erwin & Garman, 2010; Thundiyil et al., 2015).

Antecedents focused reviews. We identified two groups of reviews explicitly focused on the distal antecedents of change context—investigating leadership and management and change content—specifically job redesign. We did not identify any reviews with the change process as their primary focus as an antecedent of employee change reactions.

Distal antecedent - Change context. We identified three reviews focusing on leadership and management as an antecedent to employee reactions to change. Notably, two of these three reviews remark on and aim to address the lack of theory in organizational change. The earliest of these, Fugate (2012), investigated the impact of leaders, managers, and human resource management practice on the employee reactions of commitment to change and change resistance, concluding the field of research is “handicapped by a lack of theory and rigorous testing” (p. 201). Like the recommendation in the reactions to change reviews, Fugate (2012) calls for more

complex research designs that use longitudinal data collection and a more complex conceptualization of employee experiences of change.

Seeking to bridge this theoretical gap, Oreg and Berson (2019) review the literature on leadership and organizational change. Part of this review focused on the links between leadership and employee reactions and the impact of strategic decisions on change recipients (Oreg & Berson, 2019). Oreg and Berson (2019) also discuss the mediating role of change reactions between leader behavior and organizational outcomes via the aggregation of individual responses. They recommend developing more complex conceptualizations of the employee responses to change initiatives and increased research of the effect of employee reactions on leaders or bottom-up change.

Finally, Peng et al. (2020) provide a meta-analysis of the linkages between transformational leadership and reactions to change. Specifically, they support the hypothesis that transformational leadership contributes to increased positive attitudes to change and reduces negative attitudes. This type of review builds some of the theoretical rigor called for in the two earlier reviews. Peng et al. (2020) also identify research design as a potential moderator, as the linkages between transformational leadership and change cynicism and openness to change were notably different in longitudinal versus cross-sectional research designs. This difference could be due to the temporal effects of the changing context of transformational leadership on employee reactions, along with the need for stronger theorizing noted above. These reviews summarize the relationship between leadership style and employee reactions to change; however, the simplified representation of employee reactions and a need for stronger theorizing is identified as a common problem (Fugate, 2012; Oreg & Berson, 2019; Peng et al., 2020).

Distal antecedent - Change content and type. The second area of the conceptual model (see Figure 3-2) where change reaction antecedents are the focus relates to change content and type. We identified one review, Knight and Parker (2021), of the relationship between work redesign interventions and performance. Work redesign is a specific type of change that affects employee-level outcome measures of performance. Knight and Parker (2021) identified promising evidence that top-down work redesign interventions improve performance and that this effect is enhanced for participative initiatives. They highlight the need to apply a broader theoretical perspective to work redesign that situates individual-level changes within an organizational context and the importance of context on the success of interventions.

Outcome focused reviews. We identified two groups of reviews with proximal outcomes of organizational change as their primary focus; those focused on employee behaviors, namely adaptive behavior and change-focused organizational citizenship behavior (OCB-CH), and a second set looking at employee consequences such as health and well-being.

Proximal outcomes - Employee behaviors. Adaptive performance was the focus of seven reviews made up of three meta-analyses and four traditional reviews. The thrust of these reviews was to improve construct clarity (Jundt et al., 2015; Park & Park, 2020), develop theory (Baard et al., 2013; Park & Park, 2019), and build evidence of antecedents (Huang et al., 2014; Stasielowicz, 2019, 2020). In addition to these approaches, Park and Park (2020) reviewed adaptive performance concepts to organize awareness, processes, and outcomes. These reviews highlight the importance of individual-level constructs such as motivational beliefs and processes that positively impact adaptive behavior and recommend the research of within-person change adaptation to change over time (Jundt et al., 2015). Additionally, Jundt et al. (2015)

recommend that adaptive performance scholars draw on related disciplines such as the organizational change literature.

Meta-analysis evidence focused on the linkage between employee characteristics and adaptive performance. Huang et al. (2014) found the personality traits of ambition (a facet of extraversion and emotional stability) contributed to adaptive performance, whereas openness did not contribute. Stasielowicz (2020) found that cognitive ability positively contributed to adaptive performance, and the relationship was stronger than those identified for personality. In addition, Stasielowicz (2019) found a positive relationship between performance adaptation and goal orientation. The findings support the change reactions reviews that indicate traits are likely to be important antecedents to change reactions.

We identified two further meta-analyses intending to build conceptual clarity for change-related organizational citizenship behaviors (OCB-CH) (Chiaburu et al., 2013; Marinova et al., 2015). Chiaburu et al.'s (2013) studies of OCB-CH found a moderate positive correlation with social support, concluding social support is essential for OCB-CH. A meta-analysis by Marinova et al. (2015) demonstrated that the construct of proactive personality was a stronger predictor of OCB-CH. Neither meta-analyses addressed the mechanisms acting between the antecedents of change context and individual characteristics and the outcome of OCB-CH.

In building a person-centric perspective, we can take from these reviews that the influence of both proximal antecedents such as traits—personality and cognitive ability—and more distal antecedents—social support—are likely to be important antecedents. However, in some of these reviews, the lack of theory is noted because relationships between constructs, including change outcomes, lack adequate explanation (Marinova et al., 2015; Park & Park, 2020).

Proximal outcomes - Employee consequences. Finally, a group of ten reviews examines the employee consequences of organizational changes. These reviews were predominantly from the occupational health literature. They used systematic review methods to consolidate well-being effects related to specific types of change on populations of employees, while micro-changes were to job characteristics or job conditions (Bambra et al., 2007; Daniels et al., 2017; Egan, Bambra, et al., 2007; Johnson et al., 2020) or training (Daniels et al., 2017).

We identified a group of reviews that focused on the macro-changes of downsizing and job insecurity (Quinlan & Bohle, 2009), privatization (Egan, Petticrew, et al., 2007), organizational change (Bamberger et al., 2012; Grønstad, 2017), restructuring (de Jong et al., 2016) and the impact of these types of changes on employee well-being. These reviews present evidence that macro-organizational changes lead to overall reduced employee well-being—with or without job losses—and increased the risk of adverse employee health effects in both the short- and long-term.

The remaining reviews in this group focused on the impact of changes to job characteristics or job conditions (Bambra et al., 2007; Daniels et al., 2017; Egan, Bambra, et al., 2007; Johnson et al., 2020), job design (Daniels et al., 2017) and technology (Johnson et al., 2020) on employee well-being. They indicated that some types of changes could positively affect employees, particularly interventions that improve employee participation and control and reduce job demands (Egan, Bambra, et al., 2007), whereas changes that reduced control and increased demands had adverse well-being effects. Daniels et al. (2017) argued that the positive well-being effects are more likely when job design interventions are enhanced with other organizational efforts such as training, resulting in positive well-being benefits for employees. In addition, Johnson et al. (2020) highlighted the positive and negative benefits of

technology change on employees and the importance of mitigating strategies to maximize employee benefits while reducing the negative impact.

The employee consequences reviews focused on health and well-being as employee outcomes of change; however, the underpinning mechanisms explaining these effects were missing. Additionally, this group of reviews ignored individual characteristics beyond demographics. Some authors discussed this theoretical gap as a known shortcoming in this research body (Bambra et al., 2009). Critical themes from these reviews centered around research design to improve evidence of causality (Bamberger et al., 2012; Johnson et al., 2020; Quinlan & Bohle, 2009), better reporting of interventions (Daniels et al., 2017; de Jong et al., 2016; Egan, Bambra, et al., 2007), the need for qualitative research (de Jong et al., 2016; Quinlan & Bohle, 2009), broadening outcome variables factors (Egan, Bambra, et al., 2007; Grønstad, 2017), and isolation of the change interventions to avoid the confounding effects of other changes (Daniels et al., 2017; Egan, Bambra, et al., 2007; Johnson et al., 2020), and more research of the mechanisms leading to these outcomes (Egan, Bambra, et al., 2007). Grønstad (2017) argued that large-scale episodic change had received the most research attention to date, recommending future researchers consider a broader range of change types and contexts, particularly psychosocial work factors and high-frequency mid-level changes.

Combined, these findings from the occupational health literature provide compelling evidence of the adverse effects of restructuring, job insecurity, and redundancies on employee well-being and health. While demonstrating the potential for positive employee health effects when organizational change increases employee control over their jobs, reduces job demands, allows participation in change, and provides employees with the tools to improve their jobs. This group of reviews is also

critical of the theorizing in the field, particularly surrounding the mechanisms that link the change events to the employee outcomes or more distal change outcomes.

Table 3-1

A Map of the Primary and Subsidiary Foci of Reviews

Primary focus	Antecedents	Mechanisms	Outcomes	Review Authors
Antecedents	**Change context**			
	Leadership, management, and HRM	Employee change reactions	--	Fugate (2012)
	Leadership behaviors – Change information communication; Change support and attentiveness; Change participation	Change recipient responses to change	Change and organizational outcomes – firm performance and change effectiveness	Oreg &Berson (2019)
	Transformational leadership	Employee attitudes to change	--	Peng et al. (2020)
	Change content and type	--	Performance - behaviors	Knight & Parker (2021)
	Job redesign interventions			
Mechanisms		**Employee reactions to change**		
	--	Psychological process	--	Elrod & Tippett (2002)
	Process, internal context, change-specific content, and individual attributes	Readiness for change	Intentions and reactions	Holt et al. (2007)
	Process–involvement and participation	Employee beliefs about change; Change readiness	--	Armenakis & Harris (2009)
	Individual characteristics and change process elements	Resistance to change	--	Erwin & Garman (2010)
	Context, process, and content	Change recipient attitudes to change	--	Bouckenooghe (2010)
	Individual attributes- Change schema, commitment, locus of control	Commitment to change	Change engagement behaviors	Jaros (2010)
	Context - leadership style, HRM, job-level impact.			

Primary focus	Antecedents	Mechanisms	Outcomes	Review Authors
	Change process, context, type, and individual constructs	Employee attitudes to change	--	Choi (2011)
	Pre-change (Internal context, change recipient characteristics) Change (change process, change content, perceived benefit/harm)	Change recipients' reactions to organizational change – Explicit reactions (affective, cognitive, and behavioral)	Change consequences – (work-related consequences and personal consequences)	Oreg et al. (2011)
	External pressures, Internal context enablers, and personal characteristics	Change readiness	Personal consequences, work-related consequences	Rafferty et al. (2013)
	Change recipient characteristics (dispositional traits, coping styles, motivational needs, and demographics)	Explicit reactions to change using the tripartite model of affect, cognition, and behavior	--	Vakola et al. (2013)
	--	Commitment to change	Behavioral support for change	Bouckenooghe et al. (2015)
	--	Cynicism about change	Change supportive behaviors, job performance, job attitudes	Thundiyil et al. (2015)
Outcomes			**Employee behaviors**	
	New or changing environment or situational demands	--	Performance adaptation	Baard et al. (2013)
	Employees' social context- Leader, coworker, and organizational support. Moderator-Specificity	--	Change oriented citizenship behavior	Chiaburu et al. (2013)
	Personality	--	Adaptive performance	Huang et al. (2014)
	Individual differences, training and learning, job, tasks, and context	Motivation and self-regulation; Cognitive processes and behavioral strategies	Adaptive performance	Jundt et al. (2015)
	Individual differences and job design predictors	--	Change-oriented behavior	Marinova et al. (2015)

Primary focus	Antecedents	Mechanisms	Outcomes	Review Authors
	Individual, job, group, and organizational characteristics	--	Adaptive work behaviors	Park & Park (2019)
	New co-worker, software, emergencies; g orientation	--	Performance adaptation	Stasielowicz (2019)
	New co-worker, software, emergencies; cognitive ability	--	Performance adaptation	Stasielowicz (2020)
	--	--	Adaptive performance	Park & Park (2020)
			Employee consequences	
	Workplace reorganization	--	Psychosocial and health effects	Bambra et al. (2007)
	Workplace reorganization to increase employee control	--	Psychosocial and health effects	Egan, Bambra, et al. (2007)
	Privatization of public utilities	--	Health and safety impacts on employees	Egan, Petticrew, et al. (2007)
	Organizational change to the psychosocial work environment	--	Health and health inequalities	Bambra et al. (2009)
	Downsizing and job insecurity	--	Occupational health and safety effects	Quinlan and Bohle (2009)
	Organizational change	--	Mental health	Bamberger et al. (2012)
	Restructuring	--	Well-being	de Jong et al. (2016)
	Job redesign via employment practices	--	Well-being and performance	Daniels et al. (2017)
	Organizational change	--	Work-related attribution of sickness absence	Grønstad (2017)
	Technology change that change work practices – automation and telecommunication		Mental health and well-being	Johnson et al. (2020)

Note: The greyed-in zones denote the primary focus of the reviews.

3.4 Discussion

Our focus in conducting this meta-review was to identify concepts from the change reactions literature we could use in a person-centered conceptual model of employee change reactions. Our first contribution is our conceptual framework (see Figure 3-2) that ties in the existing knowledge of antecedents, mechanisms, and outcomes to frame a person-centric perspective to employee reactions to change. Our second contribution is systematically searching, analyzing, and synthesizing the review literature in employee change reactions and closely associated occupational health, leadership, and work design fields. This integration of research fields demonstrates the benefits of pulling together findings from associated literature and demonstrating how fields can complement each other. The third contribution is the recommendations for future research of employee change reactions and developing a person-centered perspective on change to which we now turn.

Our meta-review highlights the substantial amount of primary research investigating organizational change and the reactions, responses, and outcomes for working people conducted in the past 70 years. Primary research across the reviews is mainly quantitative, focused on episodes of top-down planned change, utilizing variance-based research designs. There is good evidence that macro-organizational level changes such as restructuring can harm employees (de Jong et al., 2016), while targeted changes such as job design can benefit employee well-being (Daniels et al., 2017) and performance (Knight & Parker, 2021). What is less clear is how these outcomes happen and which types of employees are more likely to be affected. Findings related to psychological mechanisms, such as coping, sensemaking, and identity, are largely absent from these reviews. Additionally, the absence of qualitative literature from the reviews is notable, indicating

that the humanistic insight into organizational change phenomena is missing from this discussion. However, we have demonstrated that broadening the research scope to include occupational health, job design, and adaptive performance provides a solid foundation for developing a person-centered research perspective on employee reactions to change is available. Rather than raise more questions, it is vital to suggest ways we move our understanding forward while linking it to our past knowledge base. In the remainder of this discussion, we draw on the recommendations of past research and our synthesis to present five suggestions to build a person-centric research approach to employee change reactions.

Conduct person-centered employee change reactions research. This meta-review has only been able to identify review papers of primary quantitative research that applies a variable-centered approach, with only one review discussing person-centered approach analysis concerning the commitment to change constructs (Bouckenooghe et al., 2015). From this, we argue that person-centric analysis is not typical and could be a valuable addition to the change reactions field, supplementing the current variable-centric approaches, specifically to develop a more nuanced understanding of heterogeneous employee reactions to change. Recently, researchers have used such a person-centered analysis approach to address contextual complexity in the study of organizational commitment (Meyer & Morin, 2016; Meyer et al., 2012) and emotional regulation at work (Gabriel et al., 2015; Gabriel et al., 2020).

Our conceptual framework (see Figure 3-2) provides the theoretical basis drawn from change research. When exploring a subject area using a person-centered approach having a distinct theoretical basis to guide exploration is critical (Morin et al., 2018; Woo et al., 2018). We favor drawing this from the existing base of individual-level change research instead of imposing theoretical models from other disciplines. Our meta-analysis identified

a set of constructs likely to be important indicators of change reaction profiles. While not all studies include the tridimensional factors of affect, cognition, and behavior, these recur as coexisting factors in explaining and measuring employee reactions and attitudes to change. It is also apparent from the attitudinal research that valence toward and against change are recurring themes. Change positive valence attitudes are indicated by change commitment (Bouckenooghe et al., 2015; Jaros, 2010) and change readiness (Holt et al., 2007; Rafferty et al., 2013), whereas negative change valence attitudes are resistance (Bouckenooghe, 2010; Oreg et al., 2011) and cynicism (Thundiyil et al., 2015). The endurance of these attitudes in the literature indicates the value of measuring distinct responses such as positive and negative attitudes to change, rather than looking at reactions as polar extremes on a continuum. Adopting a person-centered approach could assist in exploring ambivalent attitudes to change, meaning they have mixed thoughts and feelings or simultaneous positive and negative orientations to change (Piderit, 2000).

The antecedents and outcomes identified in this review also provide some guidance for a person-centered approach. Many personal characteristics and constructs have been related to employee change reactions and outcomes, providing fertile ground for further research. For example, job insecurity has recurred as an antecedent contributing to poor health outcomes in organizational change (de Jong et al., 2016; Quinlan & Bohle, 2009) and technological change (Brougham & Haar, 2017; Johnson et al., 2020), raising the question of what types of change reactions intervene between the perception of job insecurity and adverse employee outcomes. Identifying which types of reaction profiles are related to negative employee outcomes may be possible to intervene and prevent further harm, a practical application of the person-centric approach.

We recommend that person-centered analytical techniques be adopted to explore heterogeneity within a population exposed to workplace change, using a combination of affect, cognition, and behavioral change constructs to indicate the profiles and select the antecedents and outcomes identified in this meta-review. Additionally, processes of internal adaptation to change across time, such as those identified by Elrod and Tippett (2002), are another avenue for exploration from a person-centered perspective. If distinct profiles of change reactions are discernible, we would recommend that researchers adopt longitudinal studies of change reactions and analyze these with the technique of latent transition analysis (Lanza, Bray, et al., 2013; Nylund et al., 2007) to map both the stability of reaction profiles and transitions.

Apply multidimensional research designs. Our meta-review demonstrates that research on change-related attitudinal constructs has flourished, yet there remains a lack of multidimensional research to understand better the complex interactions between attitudes, emotions, and behaviors of employees experiencing change. Piderit (2000) usefully challenged this idea in proposing a multidimensional approach to understanding employee reactions to change, including the possibility of ambivalence, where employees' affect, cognition, and behavioral intent are not aligned. However, our meta-review demonstrates an ongoing focus on attitudinal constructs that are predominantly cognitive such as change readiness, change commitment, and change cynicism. Outside of the attitudinal research in the reviews, there is a narrow focus on behavioral reactions and even less affective reactions. We find this surprising given the evidence of the negative impact changes, such as restructuring, have on the health and well-being of employees. Aremenakis and Bedian's (1999) seminal review recommended measuring affective outcomes like anxiety, depression, and exhaustion, and our review demonstrates the ongoing history of health-

related outcomes in the occupational health reviews. However, there is a little crossover between health-focused research and the change reactions literature. We would also echo the call for researchers to include broader details about the change they are researching individual-level change reactions in and include the changing context, type, process, and the characteristics of the studied employees (Holt et al., 2007; Rafferty et al., 2013). Through these more detailed descriptions, it will be possible to understand better which aspects of change are most influential in changing reactions.

Explore employee reactions to change using a continuous change paradigm. Our review revealed planned top-down change as the dominant paradigm across all 34 reviews, either explicitly or implicitly. This focus was evident in the language scholars used to describe employees as change recipients, and the majority of empirical studies reviewed investigated single change events. This traditional approach is consistent with the episodic change paradigm described by Weick and Quinn (1999), who also explained that a downside of the episodic change approach is that it does not capture how employees experience change. Given the ubiquity of change for employees (Brazzale et al., 2021), we recommend researchers of employee change experiences adopt the premise that change is a normal part of working life, fitting with the continuous change paradigm recommended by Weick and Quinn (1999). However, as Bouckenooghe (2010) discussed, when adopting this continuous change approach to research, it will be necessary to test our current constructs and measures are still valid or to develop new models and measures for this paradigm. We consider our proposed person-centered conceptual framework as a good starting point for this venture. Specifically, we recommend adopting the perspective that change is a normal part of working life made of many over-lapping changes, reflecting the continuous change paradigm. We encourage exploration of employee reactions to

continuous change, which combines the person-centered approach within research questions: Do employees have homogeneous or heterogeneous reactions when asked if the change is a standard and continuous varying in types and intensity over time? If they are heterogeneous, what types of reactions are typical of continuous change?

Include insights from qualitative research. Qualitative research was noticeably absent as we noted no reviews focused entirely on qualitative research. Despite this, there were calls in many of the reviews for additional qualitative research to build a more nuanced understanding of how change occurs and is experienced by employees (e.g., Oreg & Berson, 2019; Quinlan & Bohle, 2009). Meanwhile, there is a growing body of qualitative studies investigating person-centric research questions relating to organizational change. Examples of this work are: How restructuring negatively affects well-being (e.g., Lensges et al., 2016), how people respond to change (e.g., Bryant & Higgins, 2010; Kärreman & Alvesson, 2009), the role of emotions and stress during change (e.g., Smollan, 2014; Stensaker & Meyer, 2011), how people make sense of change (e.g., Balogun et al., 2015; Bartunek et al., 2006), and proactivity routines (Vough et al., 2017). Together, this suggests it is time for a thorough review and consolidation of qualitative research evidence of employees' reactions to organizational change. This issue is not unique to the change management literature; blindness to the contribution of qualitative research has been acknowledged in the field of health research, which has a strong quantitative evidence base, but has been criticized for lacking the humanizing element, could improve evidence-based practice (Booth, 2016). An approach that consolidates qualitative research evidence would be beneficial to the field of organizational change research and has been recommended by management scholars (Denyer et al., 2006; Major & Savin-Baden, 2011), but with little apparent impact so far.

Adopt a multidisciplinary research approach. Our meta-review identified reviews from five distinct though interrelated disciplines: reactions to change, occupational health, work design, leadership, and adaptive performance. Combining these (see Figure 3-2) produces a richer conceptual framework to guide a person-centered research perspective. Echoing Burnes et al.'s (2018) recommendation relating to the change leadership field, we recommend researchers move from favoring management and organization studies and theory to instead draw on multidisciplinary evidence building a rich understanding of how change happens. We propose our framework (see Figure 3-2) as a starting point. Necessary next steps include broadening the descriptions of employees' change experiences to provide a nuanced language that avoids negative terms such as resistance and passive compliance. These fail to recognize that employees may have positive reasons for resisting change, and that compliance with change requires effort, such as they believe it will harm customer relationships.

3.5 Limitations

A meta-review such as this has several limitations. First, we selected Scopus as the database for our search query due to its breadth of coverage, and we conducted additional manual reference and citation searches of identified reviews to ensure thorough coverage of available reviews. Nonetheless, it is likely we will have missed some review articles. However, given the overlapping recommendations across the reviews in our sample, it is unlikely that a small number of additional reviews would result in much change to our findings. Second, the first author took the lead on screening and synthesis, which ensured consistency but concomitantly introduced the possibility of reviewer bias. We used strict selection criteria for articles to minimize this effect and note that this approach included articles that we may otherwise have neglected.

Moreover, the framework synthesis approach reduces the potential for bias. Third, a broader limitation is that meta-reviews can report only on the state of evidence selected by the included reviews and are subject to those review authors' biases in their selection of primary studies and topics. Thus, we may have falsely identified problems in our review that are artifacts of the sample of literature those review authors accessed. For example, there may be a more substantial qualitative organizational change literature than revealed in the reviewed reviews.

3.6 Implications for Practice

The academic literature surrounding people at work and organizational change are vast and diverse, making it difficult for practitioners to access reliable, current evidence to support their practice. Reviews provide a resource to consolidate current evidence, act as a signpost, and promote reflective thinking on practice. In developing this meta-review, we considered a practitioner audience of organizational psychologists, organizational development consultants, managers, strategic human resources professionals, and change managers. Our meta-review consolidates the current review evidence related to employees experiencing change and presents a person-centric framework to encourage new research in this area. We do not have good evidence of the sub-groups of employees that may respond in more uniform ways to change, nor a good understanding of the mechanisms that lead to the adverse health outcomes experienced by some employees, nor a robust grasp of how employee attitudes to change, translate into behavioral responses. These areas need further research to support professionals adopting a research-based approach to the management of change.

Based on this meta-review, our key recommendations for practitioners are as follows. First, treat claims of proven change management approaches to overcoming resistance to change with caution as the research base is still emerging. Second, note that the current review literature presents a relatively passive perspective of people experiencing change, and change practitioners should remain aware of the individual agency of employees. Thus, employees may hold complex and even ambivalent thoughts and feelings about change at work and act upon their own unique set of motivations. Third, avoid anticipating resistance to change from employees, and instead consider the likely responses to the type of change event, such as being required to learn a new skill, the loss of conditions, or increased job insecurity. Fourth, be aware that while some types of organizational change can positively affect employees, this meta-review also evidenced severe adverse health effects related to certain types of change. We recommend practitioners be attentive to and act on the signs of adverse health impacts of organizational change. Ultimately, while organizations often need to make changes to survive and thrive in a changing external environment, we need to avoid harming those who work in organizations.

3.7 Conclusion

We have contributed to the literature through a systematic meta-review of 34 review studies by presenting a person-centered conceptual framework of employee reactions to change. We suggest broadening the research perspective from a focus on convincing people to commit to change by overcoming problematic attitudes (the organizational change approach) or on understanding the effects of a particular type of change on health (the occupational health approach), to instead investigate what types of reactions do employees have to change? Which change conditions contribute to these reaction types, and how do

these change reactions positively or harmfully influence the outcomes for employees and their organizations? However, to answer these questions, we also need to acknowledge that employees are active agents, capable of holding multiple and complex thoughts and acting in ways congruent with only some of their thoughts.

Our meta-review demonstrates that current research uses a narrow range of research designs and paradigms, leading to a limited understanding of how employees deal with change. While we have good evidence of the effects of certain types of change on health, we have insufficient understanding and theoretical development of the mechanisms contributing to these outcomes. Attitudinal constructs related to organizational change are maturing in definitional and constructional clarity, yet inadequate evidence of how these reactions influence change and organizational outcomes. We recommend taking a fresh perspective acknowledging that change is an ever-present part of working life, and focused on employees as active change participants. In order to build this perspective, we need to broaden the range of research designs used, include multidimensional approaches to investigating people's responses, utilize qualitative research to build new theories, and adopt a multidisciplinary approach to strengthen our understanding. Researchers must develop a more nuanced understanding of how employees respond to organizational change, given its increasing velocity and position as a standard part of working today. Building our ability to tap into ways of changing that recognize and foster employee agency can contribute to the future success of employees, organizations, and society.

CHAPTER 4: Employee Change Orientations: Development of a Typology and Configurational Framework

Chapter 4 Preface

In Chapter 4, I identify distinct patterns of employee change orientations to make sense of the many descriptions and labels given to employee change reactions in the change literature. Chapter 4 addresses two issues I identified in Chapter 3. First, the reviews of employee change reactions lacked acknowledgment and learning from qualitative change research. Second, there was a need to rationalize the many varied and repeated terms used to describe employee change reactions. In particular, I wanted to know whether the same distinct patterns of employee reactions to change are repeated across studies. I used a qualitative data analysis technique commonly used in grounded theory, constant comparative analysis (Onwuegbuzie & Weinbaum, 2017), to develop specific categories of employee change reactions. These categories were synthesized further to become the typology of six change orientation prototypes that I outline in this paper. This typology is presented in a configurational framework that situates each prototype orientation relative to each other based on positive and negative valence and activation.

This paper has been presented at two conferences to gain feedback: the European Association of Work and Organizational Psychology (EAWOP) in Turin in 2019 and ANZOPOB in Auckland in 2019. I have also submitted this paper to the Journal of Applied Psychology, where it was reviewed but was rejected with helpful feedback. I have benefited from this feedback to rework the paper, which I then submitted to Personnel Psychology, where it is currently under review with a revise and resubmit status.

4.1 Introduction

Employees are fundamental to the success of change, acting in the roles of recipients, implementers, and initiators (Oreg et al., 2011; Petrou et al., 2018). Consequently, micro-level change researchers have developed numerous psychological approaches and constructs to describe how employees react and respond to change (Bouckenooghe, 2010; Oreg et al., 2011; Schwarz & Bouckenooghe, 2018). While such micro-level approaches have provided a detailed understanding of how change-relevant dispositions affect change attitudes (Michel et al., 2013; Oreg, 2003), change scholars have also criticized the micro-level change literature for being change agent-centric (Ford et al., 2008), employee blaming (Dent & Goldberg, 1999), and representing employees as passive receivers of change (Oreg et al., 2018).

Recognizing the limitations of earlier predominantly negative views of employees and change, scholars have developed additional concepts that emphasize positive employee responses to change, such as change readiness (Armenakis et al., 1993; Rafferty et al., 2013), pragmatic resistance (McCabe et al., 2019), and positive change orientation (Fugate et al., 2012). However, despite burgeoning research, three fundamental problems remain. First, employees continue to be represented as passive and often negative recipients of change, as evident through the continued use of constructs such as resistance, support, and acceptance of change (Oreg et al., 2018; Oreg et al., 2013). Second, ambivalent responses to change—mixed emotions, cognitions, and behaviors—predicted by Piderit (2000) and widely acknowledged in the change literature (Fugate & Soenen, 2018; Oreg et al., 2018; Oreg & Sverdlik, 2011; Rothman & Melwani, 2017; Rothman et al., 2017; Smollan, 2011) remain underexplored. Such change ambivalence implies that not all responses can be neatly categorized as either positive or negative, yet simplistic positive versus negative

categorizations prevail (Rothman et al., 2017). Third, while critiques have generated multiple categorizations and delivered more fine-grained perspectives of reactions to change, they have simultaneously contributed to the problematic overlap of terms and constructs. Taking active resistance as an example, Herscovitch and Meyer (2002) defined this as "demonstrating opposition in response to a change by engaging in overt behaviors that are intended to ensure that the change fails" (p. 478) thus emphasizing overt behavior. Concurrently, Bovey and Hede (2001a, 2001b) include covert behaviors with a similar intent within active resistance, whereas Smollan (2011) adds an emotional and cognitive dimension to active resistance. More recently, Vakola (2016) adopts Herscovitch and Meyer's (2002) definition and adds a list of behaviors. We could argue this represents valuable progress in the development of a construct. Alternatively, it also suggests elements of the jingle fallacy, referring to the assumption that different constructs are the same because they use the same label (Casper et al., 2018; Kelly, 1927). Conversely, change orientation concepts, such as the carping critic (Mishra & Spreitzer, 1998) and scornful resistance (Alcadipani et al., 2018), seem similar to active resistance and may exemplify the jangle fallacy, referring to the incorrect assumption that two constructs are distinct as they use different labels (Casper et al., 2018; Kelly, 1927).

The purpose of our paper is to address these three issues by analyzing and synthesizing past organizational change research to create new understandings. Thus, we advance an integrative typology of employee change orientation prototypes and, drawing on this typology, propose a configurational framework. In so doing, we comprehensively capture the complexities of employee responses to change, with the typology and framework intended to stimulate new theorizing, encourage fresh perspectives for research, and deliver tools for practice. In our review of the change literature, employee responses,

resistance, support, and reactions to change are our focus; to capture these varied terms, we use the collective label *employee change orientation.* We define an employee change orientation as the product of an employee's change valences, resulting from an employee's feelings, thoughts, and behaviors about either a specific change or current ongoing organizational changes. A change valence refers to an employee's positive or negative positioning toward change. Each change valence, positive or negative, can vary in strength, defined as the intensity of energy, arousal, and activation an employee directs toward or against the change.

This paper makes three important contributions to the organizational change literature. First, building on a thorough review and analysis of past research, we provide an integrative typology of six change orientations. For each prototype, drawing on foundational research, we provide definitions of prototypical feelings, cognitions, and behaviors. Relatedly, addressing prior criticisms of the passive, management-focused, and often negative representation of employees' responses to change (Oreg et al., 2018), we provide a neutral and activation-appropriate vocabulary to describe each prototype. Second, drawing on the analysis underpinning our typology, we provide a novel configurational framework of employee change orientations. This framework treats positive and negative valence to change as two separate dimensions rather than as a continuum, which, combined with strength, enables ambivalent prototypes to be distinguished. This approach improves substantially upon past approaches in which ambivalent responses are often clustered into unresolved miscellaneous categories (Rothman et al., 2017). Finally, this framework provides much-needed structure to the employee responses to change literature and, of particular use, illuminates missing knowledge, thus providing rich areas for exploration.

Next, we provide a brief outline of the theoretical paradigms and assumptions underpinning key extant typologies. Following that, we explain our approach to integrating the literature, how this was used to ground the six emergent change orientation prototypes, and subsequently create a framework depicting these prototypes along two dimensions, positive and negative change valence, with levels of valence strength from low through high. Finally, we discuss how this framework opens new directions for understanding employee change orientation, including future research and practical implications.

Assumptions and boundary conditions. Scholars' choice of perspective influences their selection of context and methodology, consequently foregrounding certain constructs while obscuring others. Of these perspectives, we differentiate researchers' focus on top-down or bottom-up change initiation, episodic or continuous change, and employees' state-like change responses, including holistic attitudes to change and discrete change-related emotions, cognitions, or behaviors. Micro-level organizational change research's dominant perspective is top-down change initiation, exploring a significant change event, often termed an episodic change (Bouckenooghe, 2010). These represent specific, single changes designed and implemented by management, such as implementing new technology or restructuring an organization. An alternative, rarer form of episodic change is bottom-up — a discrete change initiated by employees; this is present in the proactivity literature (e.g., Vough et al., 2017). Continuous change perspectives—investigating ongoing changes rather than discrete episodes of change—are similarly rare (Bouckenooghe, 2010) and associated with both top-down (Kiefer, 2005) and bottom-up change (Orlikowski, 1996). Given building evidence that most employees perceive they are experiencing change as part of their work (Brazzale et al., 2021; Wee & Taylor, 2018), the continuous change perspective's importance is likely to increase. These distinct perspectives foreground

relatively different constructs to describe employee reactions, indicating a typology of employee change orientations can be more valuable if it is inclusive of diverse constructs and is transferable across these perspectives.

Across the differences in perspective outlined above, our focus is on identifying the details of state-like employee change orientations that evolve across time and develop in response to current change circumstances (Luthans et al., 2007). Descriptions of change orientations share a common psychological foundation of employee emotions, cognitions, and behaviors toward change, also known as the tridimensional model of change attitudes (Piderit, 2000). This tridimensional approach is prevalent in the organizational change literature (Oreg et al., 2011) and forms the theoretical structure for measuring employee attitudes to change (Oreg, 2006; Piderit, 2000; Tsaousis & Vakola, 2018). Equally, many scholars focus on one or two rather than all three dimensions. Given the common foundation of the constructs of emotion, cognition, and behavior in our target literature, we organize our analysis around these three domains to surface commonalities across the various employee change orientation constructs.

Notwithstanding such commonalities, underlying coherent change orientations, employees may experience ambivalence where affect, cognition, and behavior are incongruent (Piderit, 2000), such as feeling sad about a change and thinking it is vital to comply or futile to resist. In the broader organizational literature, ambivalence is defined "as the simultaneous experience of opposing orientations toward an object or target" (Rothman et al., 2017, p. 35). Ambivalence is a complex psychological state which can manifest in a range of different ways resulting in: changes in cognitive flexibility (Rothman et al., 2017); vacillation between positive and negative aspects, reducing the ability to decide (Ashforth et al., 2014; Rothman et al., 2017); behavioral aspects of both resistance

and openness to change (Rothman et al., 2017); and balanced consideration of many aspects or perspectives when making decisions (Ashforth et al., 2014). Ashforth et al. (2014) identify the potential coexistence of positive and negative orientations that may fluctuate in strength and with varying combinations possible, such as having one dominant orientation or holding simultaneously strong negative and positive orientations. The coexistence of positive and negative affect as distinct and separate dimensions (Watson et al., 1988) is a well-established concept within the emotion literature. Recently, micro-level change researchers (e.g., Fugate & Soenen, 2018; Kaltiainen et al., 2020) have identified the importance of simultaneously considering both positive and negative responses. Given the presence of mixed or ambivalent employee change orientations in existing typologies (reviewed below), Piderit's (2000) tridimensional approach provides a structured way to examine these systematically. The term valence reoccurs within the change literature related to employee beliefs about change (Armenakis et al., 1993) and has been described as positive or negative (Lines, 2005). We broaden the term valence to be the strength of both the positive and negative orientation an employee has to the current change.

In summary, this review's theoretical position is that employee change orientations are psychological and state-like, comprising an employee's current feelings, thoughts, and behaviors toward change. An employee may have either unified or ambivalent attitudes comprising positive and negative change valences, varying in strength. Change may comprise either a discrete change episode or continuous and ongoing changes, and the employee may uniquely or concurrently be a receiver, an implementer, or an initiator of change.

Outline of existing configurational frameworks of employee change responses. The benefits of a typological approach to employee change orientations have been

acknowledged through the previous development of configurational frameworks and their frequent citation in the change literature. We identified six key frameworks, which are summarized in **Table *4-1*Error! Reference source not found.**. These are represented either as two-by-two matrices (Lapointe & Beaudry, 2014; Lines, 2005; Mishra & Spreitzer, 1998), a circumplex (Oreg et al., 2018), or continua (Bovey & Hede, 2001a, 2001b; Coetsee, 1999). While each of these six frameworks is well-cited in the organizational change field, all have some shortcomings to which we now turn as a useful means of identifying the issues that a new framework needs to resolve.

The two-by-two matrix, with two intersecting axes and four quadrants, is a parsimonious way to represent employee change orientation complexity. However, a significant drawback is the pervasive exceptions that defy categorization, notably the fifth, miscellaneous, or crossover type identified in the three change typologies using such a matrix (Lapointe & Beaudry, 2014; Lines, 2005; Mishra & Spreitzer, 1998). The use of a circumplex (Oreg et al., 2018) or continua (Bovey & Hede, 2001a, 2001b; Coetsee, 1999) enables a range of change responses to be defined, including extreme responses; such models hint at the existence of nuanced states, yet they skim over the detail of these, reducing the framework's usefulness. The most recent example, a "Circumplex of change recipients' responses to change and the underlying core affect" (Oreg et al., 2018, p. 69), hints at many unique employee responses; however, a two-by-two matrix is over-laid, thus shifting the focus to just four response types. Fugate and Soenen (2018) applied this model empirically using compliance and championing change support measures to approximate Oreg et al.'s (2018) change acceptance and change proactivity response types; while finding strong evidence for championing, as change proactivity, their evidence suggested the compliance construct "may fill a broader conceptual space" (p. 123) than the change

acceptance response type. Exceptions are a known problem with typologies as descriptions may be elegant yet risk being overly parsimonious, masking underdeveloped or complex theories and limiting their validity (Doty & Glick, 1994).

The use of dimensions with axes ranging from positive through negative (Lines, 2005; Oreg et al., 2018) or resistance through support (Bovey & Hede, 2001a, 2001b; Coetsee, 1999; Lapointe & Beaudry, 2014) demonstrate the assumption of a unidirectional continuum rather than two separate dimensions. In each case, the presence of support implies the absence of resistance; and high positive affect implies the absence of negative affect. However, the ambivalence literature finds that actors can simultaneously hold mixed thoughts and feelings about a target, such as change (Piderit, 2000; Rothman et al., 2017). A constructive way to move beyond this bipolar view is to consider activation in the measurement of employee orientations. Oreg et al. (2018) demonstrate this adeptly in their circumplex of change responses, where the passive-active description of activation, typical in the change literature, is replaced with a low to high activation axis. Importantly, this recognizes that even muted responses to change are not truly passive, even though they may be accompanied by low activation core-affect such as calmness or sadness (Oreg et al., 2018).

These brief critiques of previous typologies provide a foundation for our endeavor. Specifically, our analysis above indicates: there is a utility in identifying distinct change orientation prototypes; prototypes within these typologies are multidimensional, combining affect, cognition, and behavior toward change; each prototype includes a positive or negative orientation toward change, and some introduce activation level of responses, all discern at least four response types, but these all differ slightly, with a fifth hybrid,

complex, or ambivalent type existing that is ill-defined and may comprise several more nuanced, mixed types.

Table 4-1

Key Conceptual Frameworks of Individual-level Responses to Change

Framework	Source	Description
Circumplex of change recipients' responses to change and underlying core affect	Oreg et al. (2018)	2X2 matrix. Dimensions: Change valence (negative to positive) and change activation (low to high). Four distinct quadrants (change proactivity, change acceptance, change resistance, and change disengagement) are described as a circumplex.
Typology of IT user behaviors	Lapointe & Beaudry (2014)	2X2 matrix but resulting in five IT user mindsets. Dimensions: Cognitive mindset (acceptance to resistance), and behavior (compliance to noncompliance); plus, fifth central mindset called ambivalent.
Behavioral consequences of attitudes toward change	Lines (2005)	2X2 matrix but resulting in five types. Dimensions: Attitude strength (strong to weak) and attitude valence (positive to negative). With behavioral anchors in each quadrant.
Framework for measuring behavioral intentions	Bovey & Hede (2001a, 2001b)	A continuous measure of behavioral intention to resist change yet presented as a 2X2 matrix. Dimensions: active (originate action) to passive (not acting); and overt (openly expressed) to covert (concealed) behavior. Each quadrant provides elements of support and resistance behavior.
Resistance to commitment model	Coetsee (1999)	Continuum: Aggressive resistance, active resistance, passive resistance, apathy(indifference), involvement, acceptance (commitment). Mentioned a further super commitment response in the text.
Archetypes of survivor responses	Mishra & Spreitzer (1998)	2X2 matrix of survivor responses. Dimensions: beliefs of personal harm (constructive to destructive); and coping assertiveness (passive to active) yielding four archetypes of downsizing survivor response. They note an additional crossover archetype likely.

4.2 Method - Development of a Typology of Employee Change Orientations

The first stage of our typology development was identifying and classifying prototypical employee change orientations in the academic literature to enable a conceptual review. Broadly, we did this by first extracting prototypical employee change orientations from the qualitative literature, using these to identify distinct categories, and then cross-checking our categories with the quantitative and conceptual literature. Our rationale for starting with qualitative research is the abundance and rich descriptive details of employee change orientations drawn from diverse employment and change contexts. Once we had developed distinct categories from the qualitative research, we used papers from quantitative research methods and conceptual literature to challenge the emerging categories and strengthen their definition. While we have performed an extensive review of the change literature, our review is an integrative review with a qualitative evidence synthesis and not a systematic review.

Literature Search and Selection Strategy. To be included in the analysis, a paper needed to have at least one prototypical employee change orientation, meaning some description and evidence of employee affective, cognitive, or behavioral orientation toward change. The type of change could be an event, episode, program, or continuous change occurring in the employee's organization. We sourced examples from the top-down, bottom-up, episodic, and continuous change perspectives. We searched for relevant literature using the Scopus database, Google Scholar, and referencing and citations of seminal articles. Our initial search targeted qualitative research papers; the search terms used included 'qualitative'; 'employee OR worker OR recipient OR user'; 'organizational change'; 'reactions OR responses.' We included only papers from peer-reviewed sources,

including journals, books, and conference papers, recording the research method, change type, and perspective (please see

Appendix C Table S1 of the supplemental materials).

Identification of categories of prototypical employee change orientations. We aimed to achieve a cohesive typology of employee change orientation prototypes that was broad enough to capture the range and complexity of employee change orientations observed in the literature yet parsimonious enough to bring coherence to these. We used constant comparative analysis to analyze and integrate the emerging categories, which would become the final prototypes (Glaser & Strauss, 1967; Onwuegbuzie et al., 2012), complemented with taxonomic analysis (Onwuegbuzie et al., 2012). Our approach was highly iterative, starting with a blank slate with no predefined categories and adding new categories only when concepts present in the papers reviewed did not fit within any available category. We continued this process, challenging and refining our emerging categories until no new categories emerged even as we added further examples from the literature. At this point, we judged that saturation had occurred, with our analysis converging on six distinct categories. We then tested our categories further with key quantitative and conceptual papers; while we were open to identifying new categories, none emerged. All coding was reviewed and cross-examined within the authorship team.

Once we had identified a set of distinct and stable categories, these became our six change orientation prototypes. We further synthesized our findings by looking for elements that were common within prototypes yet varied across prototypes. We identified two dimensions, *positive change valence strength* and *negative change valence strength*. An employee change orientation comprises of both a positive and negative change valence strength.

One of our objectives was to provide a neutral and activation-appropriate vocabulary to describe employee change orientations while also avoiding confusion with existing constructs. Thus, we created new labels choosing neutral terminology that was neither inherently good nor bad and avoiding terms such as supporter, resistant, or deviant. We also tried to match the name with the overall change valence strength of the prototypical change orientation. We tested these names within the authorship team and with colleagues to ensure they met these criteria.

4.3 Employee Change Orientation Typology and Configurational Framework

In total, we extracted 126 change responses from 45 papers spanning 72 years of change research (year of publication, 1948-2020). Of the 45 papers, 27 used qualitative methods, seven quantitative, one mixed-method, and the remaining ten were conceptual. The top-down perspective is used in 39 papers, whereas the bottom-up perspective occurred in only six papers. Episodic change was the focus of 31 papers, with the remainder focused on continuous change.

From this process, we identified six change orientation prototypes: *defender, half-hearted, enthusiast, pragmatist, challenger,* and *jaded*. Next, we examine the supporting evidence for each prototype in order of emergence. In Table 4-2, we provide a summary of the concept terms and their research method per identified source for each prototype, with further detail available in the supplementary materials (Please see

Appendix **C** for Supplementary Table S1 provides a summary by contributing paper; Supplementary Tables S2-S7 provide details extracted from each paper by change orientation prototype). Following the typology, we introduce the configurational framework of employee change orientations.

Table 4-2

Summary of Contributing Concepts

Prototype	Concept terms or descriptors, authors, and research method
Defender	Resistance to change (Coch & French, 1948[b]; Oreg, 2006[b])[1]
Negative (high and moderate to high)	Protecting property rights (Gomberg, 1961[c])
	Denial of the need for change; refusal to accept responsibility; refusal to implement; repression (Agócs, 1997[c])
	Carping critics (Mishra & Spreitzer, 1998[c]; Aggerholm, 2014[a])[1]
Positive (low)	Aggressive resistance (Coetsee, 1999[c])
	Active resistance (Coetsee, 1999[c]; Herscovitch & Meyer, 2002[b]; Smollan, 2011[a]; Vakola, 2016[a]; Nilsen et al., 2019[a])[1]
	Passive resistance (Coetsee, 1999[c]; Herscovitch & Meyer, 2002[b]; Smollan, 2011[a]; Vakola, 2016[a]; Nilsen et al., 2019[a])[1]
	Exit (Stensaker et al., 2002[a])
	Sabotage (Stensaker et al., 2002[a])
	Strong attitude with negative valence (Lines, 2005[c])
	Avoidance/opposition (Chreim, 2006[a])
	Change resisting (Sonenshein, 2010[a])
	Oppositional power-resistance (Thomas et al., 2011[a])
	Delegitimization and intense resistance to change (Huy et al., 2014[a])
	Deviant (Lapointe & Beaudry, 2014[c]; Bhattacherjee et al., 2018[a])[1]
	Dissident (Lapointe & Beaudry, 2014[c])
	Making out (McCabe, 2014[a])
	Opting out - nonconformity/passive resistance (Stein et al., 2015[a])
	Gaming the system – nonconformity/active resistance (Stein et al., 2015[a])
	Front-stage support, backstage resistance (Ybema & Horvers, 2017[a])
	Practical, Ironic, and Scornful resistance (Alcadipani et al., 2018 [a])
	Change resistance (Oreg et al., 2018 [c])
	Defense of property rights (Desmond & Wilson, 2019[c])
	Avoidance work of subordinate actors (Xiao & Klarin, 2019[a])
	Conserving and avoiding the new work (Chen & Reay, 2020[a])
	Resisting and mourning (Chen & Reay, 2020[a])
	Traditional (Schneider & Sting, 2020[a])

Prototype	Concept terms or descriptors, authors, and research method
Half-hearted Negative (moderate to high) Positive (moderate to low)	Compliance (Herscovitch & Meyer, 2002[b]; Fugate & Soenen, 2018[b]) Weak attitude strength and negative attitude valence (Lines, 2005[c]) Weak attitude strength with positive attitude valence (Lines, 2005[c]) Resigned compliance (Chreim, 2006[a]) Apathy (Smollan, 2011[a]) Ambivalence (Smollan, 2011 [a]) Compliance – loyal response (Stensaker & Meyer, 2011[a]) Walking wounded (with other characteristics) (Aggerholm, 2014[a]) Shifting legitimacy judgments and increasing resistance (Huy et al., 2014[a]) Resigned behaviors (Lapointe & Beaudry, 2014[c]) 'Making do' – Consenting resistance (McCabe, 2014[a]) Doubters (Lysova et al., 2015[b]; Jansen et al., 2016[b])[1] Passive support (Vakola, 2016[a]) Frontstage resistance, backstage compliance (Ybema & Horvers, 2017[a]) Reluctant (Bhattacherjee et al., 2018[a]) Regressive narratives (Stensaker et al., 2020[a])
Enthusiast Positive (high) Negative (low)	Active advocates (Mishra & Spreitzer, 1998[c]; Aggerholm, 2014[a])[1] Commitment (Coetsee, 1999[c]) Champions (Herscovitch & Meyer, 2002[b]; Sonenshein, 2010[a]; Lysova et al., 2015[a]; Jansen et al., 2016[b;] Fugate & Soenen, 2018[b])[1] Taking self-control (Stensaker et al., 2002[a]) Strong attitude with positive valence (Lines, 2005[c]) Acceptance (Chreim, 2006[a]) Positive change orientation (Fugate et al., 2012[b]) Engaged - acceptance mindset/compliant (Lapointe & Beaudry, 2014[c]) Supporters (Lysova et al., 2015[a]) Active support (Vakola, 2016[a]) Engaged (Bhattacherjee et al., 2018[a]) Change proactivity (Oreg et al., 2018[a]) Retrieving, modifying, and affirming the new work (Chen & Reay, 2020[a]) Playful (Schneider & Sting, 2020[a])

Prototype	Concept terms or descriptors, authors, and research method
Pragmatist	Faithful followers (Mishra & Spreitzer, 1998[c]; Aggerholm, 2014[a])[1]
Positive (moderate to high)	Involvement (Coetsee, 1999[c]; Nilsen et al., 2019[a])[1]
	Support (Coetsee, 1999[c]; Nilsen et al., 2019[a])[1]
	Cooperation (Herscovitch & Meyer, 2002[b])
Negative (moderate to low)	Loyalty- passive with change probable (Stensaker et al., 2002[a])
	Ambivalence (Chreim, 2006[a]; Lapointe & Beaudry, 2014[c])[1]
	Change acceptance (Sonenshein, 2010[a]; Oreg et al., 2018[c])[1]
	Acceptance – loyal response (Stensaker & Meyer, 2011[a])
	Facilitative power-resistance (Thomas et al., 2011[a])
	Favorable legitimacy judgments and low resistance (Huy et al., 2014[a])
	Loyal citizens (Lysova et al., 2015[a])
	Exercising discretion (Stein et al., 2015[a])
	Being a good citizen (Stein et al., 2015[a])
	Personalizing (Stein et al., 2015[a])
	Compliant (Bhattacherjee et al., 2018[a])
	Pragmatic resistance (McCabe et al., 2019[a])
	Parking professional identity and learning the new work (Chen & Reay, 2020[a])
	Utilitarian (Schneider & Sting, 2020[a])
	Functional (Schneider & Sting, 2020[a])
	Anthropocentric (Schneider & Sting, 2020[a])
	Progressive narratives (Stensaker et al., 2020[a])
Challenger	Tempered radical (Meyerson & Scully, 1995[a])
Positive (high)	Change advocates – employment equity change agents (Agócs, 1997[c])
	Repairing, expanding, or striving – organizational routines (Feldman, 2000[a])
Negative (high)	Productive resisters (Courpasson et al., 2012[a])
	Proactivity routines (Vough et al., 2017[a])
	Proactivity as frustration (Bindl, 2019[a])
	Proactivity as growth (Bindl, 2019[a])
	Performers (Gilstrap & Hart, 2020[c])
	Prescribers (Gilstrap & Hart, 2020[c])
Jaded	Walking wounded (Mishra & Spreitzer, 1998[c]; Aggerholm, 2014[a])[1]
Negative (moderate to low)	Indifference or Apathy (Coetsee, 1999[c]; Nilsen et al., 2019[a])[1]
	BOHICA (Bend Over Here It Comes Again) (Stensaker et al., 2002[a])
	Paralysis (Stensaker et al., 2002[a])
Positive(low)	Change fatigue (Bernerth et al., 2011[b]; McMillan & Perron, 2013[c]; McMillan & Perron, 2020 [a])[1]
	Innovation fatigue (Chung et al., 2017[b])
	Change disengagement (Oreg et al., 2018[c])

Note. Similar names are sometimes used by different authors but with slight variations in meaning.

[1]References are listed in chronological order to map the terminology's development. Research method used in the paper [a] qualitative method. [b] quantitative, or mixed methods. [c] conceptual paper

Defender – negative (high to moderate-high) and positive (low) change valence. Looking first at affect for the defender prototype, affect is described chiefly as negative, unpleasant, and high activation (Warr et al., 2014) in response to change. Affect descriptions include anger (Alcadipani et al., 2018; Chen & Reay, 2020; Huy et al., 2014; Oreg et al., 2018; Smollan, 2011; Stein et al., 2015; Vakola, 2016), frustration (Alcadipani et al., 2018; Chen & Reay, 2020; Coch & French, 1948), disgust (Aggerholm, 2014; Mishra & Spreitzer, 1998), upset (Oreg et al., 2018; Smollan, 2011), shock (Smollan, 2011), and anxiety (Stein et al., 2015). Some lower activation unpleasant affect was also observed, such as dispirited (Ybema & Horvers, 2017), discontent (Nilsen et al., 2019), unhappy (Chen & Reay, 2020), and disappointed (Schneider & Sting, 2020).

Defender cognitions were negative toward change, with change described as harming the employee's identity (Alcadipani et al., 2018; Chen & Reay, 2020; Chreim, 2006; Schneider & Sting, 2020; Sonenshein, 2010), their job (Bhattacherjee et al., 2018; Gomberg, 1961; Mishra & Spreitzer, 1998; Sonenshein, 2010), clients (Chen & Reay, 2020; Chreim, 2006), personal values (Lines, 2005), reputation (Smollan, 2011), or rights (Alcadipani et al., 2018; Desmond & Wilson, 2019; Gomberg, 1961; Xiao & Klarin, 2019). Some scholars described employee thoughts as cynical or skeptical (Aggerholm, 2014; Mishra & Spreitzer, 1998; Stein et al., 2015).

Defender behavior was also negative toward change, varying from subtle to aggressive acts, but unified in having the intent to disrupt or stop change. Subtle acts included reduced work output (Coch & French, 1948; Nilsen et al., 2019; Xiao & Klarin, 2019), the use of workarounds (Bhattacherjee et al., 2018; McCabe, 2014), appearing to accept change but not following through (Lapointe & Beaudry, 2014; Vakola, 2016; Ybema & Horvers, 2017), and micro-level protests (Alcadipani et al., 2018). More overt behaviors

included refusal to cooperate with the change (Vakola, 2016), aggression (Desmond & Wilson, 2019; Oreg et al., 2018), bullying change agents (Alcadipani et al., 2018), sabotage (Bhattacherjee et al., 2018; Stensaker et al., 2002; Vakola, 2016), deviant usage (Bhattacherjee et al., 2018; McCabe, 2014), and exit (Lines, 2005; Stensaker et al., 2002). These behaviors share the objective of challenging, stopping, or disrupting change to defend something of value to the employee. Some authors suggested differences in activation related to the employees' perceived opportunities and risks, with overt actions posing a greater risk of being linked to the employee, contrasting with covert actions that might go undetected and thus pose a lower risk of adverse consequences (Xiao & Klarin, 2019).

The defender prototype had the most significant number of contributing papers. Overall, it included 44 response concepts from 28 different papers due to multiple defender themes identified in some papers (see Table 4-2). We chose defender as the name for this prototype as it describes the highly activated state of these employees: defenders dispute the need for change, they are resolute, and are prepared to take action to prevent change, alter its course, and defend the status quo.

Half-Hearted – negative (moderate-high) and positive (moderate-low) change valence. Half-hearted affect is negative and unpleasant with moderate activation (Warr et al., 2014), including unhappiness (Lapointe & Beaudry, 2014; Stensaker et al., 2020), frustration (Bhattacherjee et al., 2018; Huy et al., 2014), sadness (Smollan, 2011), disappointment (Huy et al., 2014), annoyance (Lapointe & Beaudry, 2014), indifference (Coetsee, 1999; Lines, 2005), fear (Aggerholm, 2014; Bhattacherjee et al., 2018; Huy et al., 2014), anxiety (Aggerholm, 2014; Huy et al., 2014), shame (Smollan, 2011), and disempowerment (Smollan, 2011).

The cognitions within the half-hearted prototype were negative toward change, with low expectations of change outcomes (Bhattacherjee et al., 2018; Jansen et al., 2016; Lines, 2005; Lysova et al., 2015; Stensaker & Meyer, 2011; Vakola, 2016), accompanied by the belief change is imposed, mandated, or inevitable (Bhattacherjee et al., 2018; Chreim, 2006; Smollan, 2011). Huy et al. (2014) noted employees' belief that there was inadequate top management support. Some authors characterized employees as helpless or powerless (Lapointe & Beaudry, 2014; Stensaker et al., 2002; Vakola, 2016), while others identified low-level change positive cognitions of compliance, to make do, sometimes associated with perceiving a high cost or risk associated with change noncompliance (Bhattacherjee et al., 2018; Stein et al., 2015; Stensaker et al., 2020; Vakola, 2016).

The change behaviors associated with the half-hearted prototype were moderately change positive, achieving proficiency (Griffin et al., 2007) at best, but mainly described as compliance with the change, along with a qualifier such as reluctant, minimal, or resigned (Bhattacherjee et al., 2018; Chreim, 2006; Fugate & Soenen, 2018; Herscovitch & Meyer, 2002; Stein et al., 2015; Stensaker et al., 2020; Stensaker et al., 2002), or doggedly following instruction. Also associated with this orientation were subtle behaviors such as silence or not voicing concerns (Aggerholm, 2014; Huy et al., 2014; Lines, 2005; Smollan, 2011), waiting to see (Lysova et al., 2015; Stensaker & Meyer, 2011; Stensaker et al., 2002), and foot-dragging (Huy et al., 2014; Stensaker et al., 2020). Behavioral ambivalence is evident in Ybema and Horvers's (2017) ethnographic research, finding employees who displayed both overt protests of the change and compliance with the change. These authors interpreted this behavior as employees signaling displeasure with the change while maintaining their work standards to avoid challenging power relations.

We derived the half-hearted prototype from 18 response concepts across 16 papers (see Table 4-2). The half-hearted orientation appears related to mandated change and situations where employees perceive they do not have the power or opportunity to challenge change. The half-hearted prototype differs from the defender, who believes stopping or disrupting the change is possible and worthwhile. We emphasize here that the half-hearted orientation represents a specific type of ambivalent change orientation (Piderit, 2000; Rothman et al., 2017), combining a moderate to high negative change valence from feelings and cognition, along with a moderate to low positive change valence through the belief that at least minimal compliance is in employees' best interests. Thus, the label half-hearted represents the situation of an employee who sees the benefits of minimal compliance behavior despite mostly negative feelings and thoughts.

Enthusiast – positive (high) and negative (low) change valence. For the enthusiast prototype, affect is pleasant and high activation (Warr et al., 2014), with emotions of enthusiasm (Aggerholm, 2014; Bhattacherjee et al., 2018; Chen & Reay, 2020; Chreim, 2006; Coetsee, 1999; Fugate & Soenen, 2018; Lysova et al., 2015; Oreg et al., 2018; Schneider & Sting, 2020; Vakola, 2016), excitement (Aggerholm, 2014; Fugate & Soenen, 2018; Mishra & Spreitzer, 1998; Oreg et al., 2018; Schneider & Sting, 2020; Sonenshein, 2010), enjoyment (Chen & Reay, 2020; Chreim, 2006), passion (Bhattacherjee et al., 2018), hope (Aggerholm, 2014; Lysova et al., 2015; Mishra & Spreitzer, 1998), optimism (Aggerholm, 2014; Lysova et al., 2015; Mishra & Spreitzer, 1998), and elation (Oreg et al., 2018).

Enthusiasts' cognition toward change was positively oriented. These positive reactions were related to employees sense of ownership of the change (Bhattacherjee et al., 2018; Coetsee, 1999; Mishra & Spreitzer, 1998; Stensaker et al., 2002), the importance of

change (Lines, 2005; Lysova et al., 2015; Sonenshein, 2010), and the benefits of change (Chreim, 2006; Lysova et al., 2015; Vakola, 2016). Championing is positively related to challenge appraisals of the change and negatively related to threat appraisals (Fugate & Soenen, 2018). Some employees reported positive responses because the change introduced novelty to their job, with the opportunity to achieve mastery in a new activity (Bhattacherjee et al., 2018; Chen & Reay, 2020; Chreim, 2006; Lapointe & Beaudry, 2014; Schneider & Sting, 2020).

Enthusiast behaviors were highly adaptive (Griffin et al., 2007), with many examples of employees going above and beyond expectations to implement change (Bhattacherjee et al., 2018; Herscovitch & Meyer, 2002; Jansen et al., 2016; Lapointe & Beaudry, 2014; Vakola, 2016), including active implementation (Oreg et al., 2018; Schneider & Sting, 2020), promotion of the change to others (Fugate & Soenen, 2018; Lysova et al., 2015; Sonenshein, 2010; Vakola, 2016), and seeking solutions to make the change successful (Aggerholm, 2014; Bhattacherjee et al., 2018; Chen & Reay, 2020; Fugate & Soenen, 2018; Lapointe & Beaudry, 2014; Mishra & Spreitzer, 1998). Behaviors that indicate enjoyment of change were also described, including playfulness and experimentation (Bhattacherjee et al., 2018; Lapointe & Beaudry, 2014; Schneider & Sting, 2020).

The enthusiast prototype is derived from 19 response concepts across 18 papers (see Table 4-2). The enthusiast has consistently positive, high strength change valence, applying extra energy to make change successful and realize personal benefits. Intriguingly, all these papers focused on top-down change with a mix of episodic and continuous change perspectives, suggesting this positive and active change orientation emerged in response to management-initiated change, although it is possible to imagine an enthusiast response to

employee-initiated change. In short, the enthusiast is the antithesis of the defender. The characteristic of enthusiasm for change leads us to choose the label of enthusiast for this positive-dominant change orientation.

Pragmatist – positive (moderate-high) and negative (moderate-low) change valence. The pragmatist prototype is characterized by low activation pleasant affect (Warr et al., 2014). Affects included feeling calm or relaxed (Aggerholm, 2014; Huy et al., 2014; Mishra & Spreitzer, 1998; Nilsen et al., 2019; Oreg et al., 2018; Stensaker et al., 2020; Stensaker & Meyer, 2011), comfortable (Chen & Reay, 2020), happiness (Sonenshein, 2010), or neutral affect (Lysova et al., 2015; Schneider & Sting, 2020; Stein et al., 2015). Other research indicated complicated feelings about change described as ambivalence (Chreim, 2006) or balanced (Huy et al., 2014; Stensaker et al., 2020). Examples of emotional ambivalence (Rothman et al., 2017) were excited and afraid (Huy et al., 2014; Lapointe & Beaudry, 2014); suppressing negative feelings to remain calm (Chen & Reay, 2020); frustrated and pleased (Stein et al., 2015); vacillating between discomfort, concern, and enthusiasm (Stein et al., 2015); and frustrated and satisfied (Bhattacherjee et al., 2018).

Pragmatist cognition is moderately positive toward change, though often qualified with another factor such as commitment to the organization (Lysova et al., 2015), the change having utility (Nilsen et al., 2019), or being initiated by employees (Nilsen et al., 2019), providing an opportunity for growth (Stensaker et al., 2020), legitimate change agents (Huy et al., 2014), normalization of change as a necessity (Bhattacherjee et al., 2018; Huy et al., 2014), a normal part of work (Stensaker & Meyer, 2011), getting on with the “real work” (McCabe et al., 2019, p.10), or being a means to an end (Schneider & Sting, 2020). In more detailed narrative studies, there is evidence of pragmatists actively acknowledging the negative aspects of change yet consciously deciding to make the best of

the change and appreciate the concomitant benefits (Chen & Reay, 2020; Stensaker et al., 2020). Due to the mix of cognitive orientations about the change, some authors label such employees as ambivalent (Chreim, 2006; Lapointe & Beaudry, 2014), whereas others emphasize the motivation for putting concerns aside, calling this orientation either loyalty (Lysova et al., 2015; Stensaker & Meyer, 2011; Stensaker et al., 2002), the faithful follower (Aggerholm, 2014; Mishra & Spreitzer, 1998), or being good citizens (Stein et al., 2015).

Behaviors in the pragmatist prototype also demonstrate adaptivity (Griffin et al., 2007), with active efforts to implement the changes thoroughly and realize their benefits (Aggerholm, 2014; Chreim, 2006; Coetsee, 1999; Herscovitch & Meyer, 2002; Lysova et al., 2015; Mishra & Spreitzer, 1998; Nilsen et al., 2019; Sonenshein, 2010; Stein et al., 2015; Stensaker et al., 2020; Stensaker & Meyer, 2011; Stensaker et al., 2002), and focus on work (McCabe et al., 2019; Stensaker et al., 2020). Additionally, some researchers identified employees' extra effort to improve the changes through seeking support (Chen & Reay, 2020; Stein et al., 2015), providing constructive feedback (Oreg et al., 2018), personalizing the change (Chen & Reay, 2020; Stein et al., 2015), or negotiating a better outcome (Thomas et al., 2011). Such behaviors indicate active adaptation involving personal energy and resolve rather than passive acceptance; hence pragmatists exhibit positive change activation, although less strongly than enthusiasts.

The pragmatist prototype is derived from 26 response concepts across 20 papers (see Table 4-2). The pragmatist prototype reveals mixed thoughts and feelings, actively balancing the positives and negatives of change and suppressing negative thoughts, indicating cognitive ambivalence. The clearest example of a pragmatist is provided by Chen and Reay (2020), who describe employees suppressing their negative thoughts about a work redesign change, allowing them to try out the changes and progress with their work.

We chose the label pragmatist for this prototype, which represents employees who take an active, get-down-to-business approach, including actively managing their own emotions and thoughts in the face of change.

Challenger - positive (high) and negative (high) change valence. The challenger feels very high activation unpleasant affect (Warr et al., 2014) of anger, annoyance, and frustration (Bindl, 2019; Meyerson & Scully, 1995). Bindl (2019) also identified nervousness and excitement associated with change implementation and excitement following successful implementation. Milder affect, of disappointment or contentment, are also identified, although these occurred when employees looked back on their attempts to initiate and implement change, depending on whether it was successful or not (Bindl, 2019), perhaps indicating a transitional orientation.

Challenger cognitions center on employees identifying an unsatisfactory situation and recognizing the need to initiate improvement either of work processes (Bindl, 2019; Feldman, 2000; Gilstrap & Hart, 2020; Meyerson & Scully, 1995; Vough et al., 2017) or the organization (Agócs, 1997; Courpasson et al., 2012; Meyerson & Scully, 1995). The initiation of change was associated with beliefs of autonomy (Bindl, 2019; Feldman, 2000; Gilstrap & Hart, 2020), management support (Bindl, 2019; Vough et al., 2017), achieving small wins (Meyerson & Scully, 1995), or the employee's designated role (Agócs, 1997; Courpasson et al., 2012).

Challenger behaviors are all examples of proactivity, taking control, and initiating future-oriented change (Griffin et al., 2007). Behaviors include voicing concerns (Agócs, 1997; Bindl, 2019; Courpasson et al., 2012; Meyerson & Scully, 1995; Vough et al., 2017), developing and advocating plans for future-focused improvement (Bindl, 2019; Feldman,

2000; Gilstrap & Hart, 2020; Vough et al., 2017), engaging with management to make positive changes (Bindl, 2019; Courpasson et al., 2012; Feldman, 2000; Vough et al., 2017), implementing changes (Bindl, 2019; Feldman, 2000; Gilstrap & Hart, 2020; Meyerson & Scully, 1995; Vough et al., 2017), and monitoring changes (Bindl, 2019; Vough et al., 2017). Ambivalent behaviors have also been observed, including advocating for and critiquing change simultaneously (Meyerson & Scully, 1995).

The challenger prototype was derived from nine change orientation concepts in seven papers (see Table 4-2). These papers focused on the employee-initiated change, except for one paper that adopted a top-down change perspective yet included the possibility of concurrent employee bottom-up change initiation (Courpasson et al., 2012). Hence, the challenger change orientation is strongly associated with changes initiated proactively by employees. The challenger prototype has strong negative and positive valences that contribute to this very high activation orientation, indicting both emotional and cognitive ambivalence (Rothman et al., 2017) or a holism with “both/and thinking” (Ashforth et al., 2014, p.1466). Examples include the combination of nervousness and excitement (Bindl, 2019) and the desire to drive change yet appreciating the need to figure out the means to succeed within the system (Vough et al., 2017). The challenger differs from both the defender and enthusiast in two ways. First, only the challenger has both high strength negative and positive change valence. Second, challengers behave proactively, using various strategies to drive change in response to dissatisfaction with the status quo (Agócs, 1997; Feldman, 2000; Gilstrap & Hart, 2020; Vough et al., 2017), via collaboration with management and engaging other employees (Meyerson & Scully, 1995; Vough et al., 2017). In contrast, enthusiasts and defenders respond to change initiated by others. We

chose the label challenger to represent the drive to challenge the status quo and make changes that ameliorate an intolerable situation.

Jaded - negative (low-moderate) and positive (low) change valence. Jaded affect is unpleasant with primarily low to moderate activation (Warr et al., 2014). Affect descriptors are fatigue (Bernerth et al., 2011; McMillan & Perron, 2013), tiredness (Nilsen et al., 2019), weariness (Stensaker et al., 2002), sadness, despair (Oreg et al., 2018), depression, worry (Aggerholm, 2014; Mishra & Spreitzer, 1998), frustration (Aggerholm, 2014; Nilsen et al., 2019), despondency (Aggerholm, 2014), and disillusionment (Bernerth et al., 2011; McMillan & Perron, 2013). Employees showed disengagement, as indicated by indifference (Coetsee, 1999; Nilsen et al., 2019; Stensaker et al., 2002), and feeling numb (McMillan & Perron, 2020). Some authors used the concept of emotional exhaustion to encapsulate the affective state of these employees (Bernerth et al., 2011; Chung et al., 2017; McMillan & Perron, 2013; Nilsen et al., 2019).

Jaded cognitions describe employees as being disengaged with change and the organization (Aggerholm, 2014; Chung et al., 2017; Nilsen et al., 2019; Oreg et al., 2018; Stensaker et al., 2002) or apathetic (Coetsee, 1999; McMillan & Perron, 2020; Nilsen et al., 2019). This was generally accompanied by believing they were disempowered (Aggerholm, 2014; Bernerth et al., 2011; McMillan & Perron, 2013, 2020), could not cope (Bernerth et al., 2011; McMillan & Perron, 2013; Stensaker & Meyer, 2011; Stensaker et al., 2002), had lost control (Aggerholm, 2014; Mishra & Spreitzer, 1998; Nilsen et al., 2019), were helpless (Aggerholm, 2014; McMillan & Perron, 2020; Mishra & Spreitzer, 1998; Oreg, 2018), and were overloaded with change (Bernerth et al., 2011; McMillan & Perron, 2013, 2020; Stensaker et al., 2002). Stensaker et al. (2002) identified avoidance as a protective coping strategy based on excessive change experience, mirrored in the participant’s

description in Nilsen et al. (2019, p. 5) of “building a shell around yourself.” The cognitions identified for jaded are not change-oriented but instead focus on long-running adverse personal effects, along with decisions to withdraw from change.

Jaded behaviors comprise withdrawal from or avoidance of change (Aggerholm, 2014; Chung et al., 2017; Mishra & Spreitzer, 1998; Nilsen et al., 2019; Oreg et al., 2018), an inability to carry out not only the changes but also their roles (Nilsen et al., 2019; Stensaker et al., 2002), distancing from change (Stensaker et al., 2002), shutting off to information (Bernerth et al., 2011; McMillan & Perron, 2013, 2020; Nilsen et al., 2019) and increased absenteeism (Aggerholm, 2014; McMillan & Perron, 2013; Mishra & Spreitzer, 1998; Oreg et al., 2018). McMillan and Perron (2020) presented an example of self-sacrifice for change in which employees neglected their wellbeing due to being overwhelmed by change. These behaviors indicate disengagement with the change and potentially with the organization alongside a potential negative impact on wellbeing.

The jaded prototype’s evidence base comprises 11 concepts from 10 papers (see Table 4-2). The jaded prototype has a low to moderate strength negative change valence and low positive change valence, signaled by self-preservation avoidance of change and disengagement. This negative-dominant, lower activation state differentiates the jaded from the half-hearted, where employees are sufficiently engaged to have an opinion about change and consciously decide on minimally compliant behaviors. In contrast to the more strongly activated defender, jaded employees are overwhelmed by change, with little

energy to act; instead, they disengage from change, manifested in withdrawal, absenteeism, and avoidance, hence our decision to represent this category label jaded.

4.4 Introducing a Configurational Framework of Employee Change Orientations

Given the benefits of configuring change orientation prototypes, we aimed to build an overarching framework to coherently represent the six employee change orientation prototypes identified from our review and analysis. We applied a configurational approach, in which the prototypes are integrated parsimoniously into a framework to allow for clear communication (Doty & Glick, 1994; Furnari et al., 2020). A visual framework has explanatory utility, providing the potential for theory building (Doty & Glick, 1994), indicating relationships between prototypes, and revealing knowledge gaps to be addressed by future research. In developing this framework, the task we faced was the appropriate situation of three ambivalent prototypes (half-hearted, pragmatist, and challenger); along with two cohesive prototypes with consistent strong feelings, thoughts, and behavior (defender and enthusiast); and a negative dominant yet lower energy prototype (jaded). For the three ambivalent prototypes, ambivalence occurred both within and between affect, cognition, and behavior. Therefore, we took a multidimensional perspective to propose an aggregate amount of both positive and negative change valence that best represents each prototype. Additionally, differing strength levels exist within negative and positive change valence concepts, representing the strength of activation or energy for each change valence. Overall, positive and negative change valence, graded by strengths (low, low-to-moderate, moderate-to-high, and high), are plotted respectively on the *x*- and *y*-axes in Figure 4-1. The combination of positive and negative change valence results in a four-by-four matrix, which accurately represents the six prototypes' distinguishing features and demonstrates their interrelationships.

Figure 4-1

A Framework of Employee Change Orientations by Positive and Negative Change Valence Strength

Negative Change Valence				
High	**Defender** *Affect* Angry, frustrated, upset, unhappy *Cognition* Change needs to be stopped or disrupted *Behavior* Defensive actions to protect the status quo			**Challenger** *Affect* Frustrated, angry, annoyed, energized *Cognition* Change is needed. Challenge the status quo *Behavior* Proactivity - taking control, initiating, and implementing change
Moderate to high		**Half-Hearted** *Affect* Sad, miserable, discouraged *Cognition* Change is bad, yet compliance is the best option. Mixed thoughts *Behavior* Proficiency – comply with change minimizing the negative impact		
Low to moderate	**Jaded** *Affect* Depressed, fatigued, despondent, numb *Cognition* Disengaged – no more change *Behavior* Withdrawal and avoidance		**Pragmatist** *Affect* Calm, relaxed, balanced, mixed feelings *Cognition* Change is part of the job *Behavior* Adaptivity – getting the job done	
Low				**Enthusiast** *Affect* Enthused, energized, excited *Cognition* Change is an excellent opportunity *Behavior* Adaptivity – making change successful
Strength	Low	Low to moderate	Moderate to high	High

Positive Change Valence

This configurational framework depicts the range of ambivalent orientations that remain obscured in the simpler representations critiqued earlier (see**Table *4-1***). For example, Figure 4-1 depicts the challenger combining high strength positive and negative change valence described as frustrated, angered, energized, and initiating change. Thus, the challenger is unhappy with the status quo and is motivated to render improvements. By contrast, the pragmatist shows a moderate-to-high positive change valence and low-to-moderate negative change valence: relaxed, calm, accepting change is required, and suppressing negative thoughts and feelings to get the job done. Hence, the pragmatist may acknowledge negative aspects of the change but allows the positive aspects to dominate, accepting change as an inevitable part of their job, and their task is to implement and adapt to change. Of the sixteen quadrants in the four-by-four matrix, only six fit the change orientation prototypes identified. Thus, the framework has grey spaces that may indicate where transitions across prototypes occur over time or represent prototypes that have yet to be fully identified.

4.5 Discussion

Change is endemic to work (Brazzale et al., 2021; Chung et al. 2017; Fugate et al., 2012), with employees playing a central role in change success (Sonenshein, 2010; Stensaker et al., 2020); consequently, there is a burgeoning literature on employee change orientations. Our research was inspired by this plethora of research, which is widely fragmented; hence we provide a coherent path forward. Fundamental limitations of the change literature include the representation of employees as passive and often negative recipients of change (Oreg et al., 2013, 2018); the disjointed approach to ambivalent employee change orientations (Fugate & Soenen, 2018; Vakola, 2016; Vakola et al., 2020);

and the growing jingle-jangle fallacy issue (Casper et al., 2018) arising from both the proliferation of change constructs and their stealthy expansion.

Our paper provides three key contributions to mitigate these weaknesses. First, we offer an integrative typology that consolidates the many and varied descriptions of employee change orientations, drawing on the detailed descriptions of affect, cognition, and behavior related to change. Relatedly, and addressing change scholars' concerns (Oreg et al., 2018), we describe each employee change orientation with a vocabulary positioning employees as active participants in change while acknowledging that some employees may choose change avoidance.

Our second contribution is to organize the prototypes within a new coherent configurational framework that includes both positive and negative change valence, graded by valence strength, notably allowing ambivalent orientations to be situated by encompassing simultaneous negative and positive change valence. This advancement improves over previous research, which has identified ambivalence but lacks specificity, often leaving a miscellaneous mixed or undefined category (e.g., Aggerholm, 2014; LaPointe & Beaudry, 2014; McCabe, 2014). Thus, our framework both organizes the existing literature and parsimoniously represents the complexity of employee change orientations.

Our typology and framework's final contribution is in both integrating existing concepts and, concurrently, reducing the risk of either jingle- or jangle-fallacy change construct proliferation (Casper et al., 2018). Hence providing space and direction for the future development of change orientations. Our endeavors stand on the shoulders of giants and leverage the wealth of information obtained so far. We aim to stimulate future

endeavors from this viewpoint, and we next outline potential micro-level change theoretical and methodological considerations, avenues for future research, and practical implications.

Theoretical and methodological considerations in employee responses to change research. Qualitative research provided the foundations for our analysis, furnishing rich data on employee change orientations. However, these qualitative findings tended to mix a high level of detail in some areas of affect, cognition, or behavior toward change while lacking detail in other areas. While we acknowledge that comprehensive coverage may not have been the objective of these research papers we included, recent excellent examples of qualitative change research include full descriptions of employee change orientations (Alcadipani et al., 2018; Bindl, 2019; Chen & Reay, 2020; Stensaker et al., 2020). Such broad explanations provide a more robust basis for future research and theory development, and we encourage scholars to continue in this vein to build a more vibrant picture of employee change orientations and how employees transition through change. We recommend further qualitative studies, particularly those with a longitudinal design that explore the complete and real-time mix of thoughts, feelings, and behaviors of employees experiencing change at work (e.g., Bindl, 2019; Chen & Reay, 2020). These will provide more detailed descriptions of employees' emotions, thoughts, and behaviors across different change conditions and how change orientation trajectories unfold across time and context. This detailed analysis may also be vital in recognizing and defining the transitional states that our framework predicts, yet which currently lack illustrative data.

Only some well-known quantitative constructs appeared in our typology. For example, resistance to change (Oreg, 2006) fitted within the defender prototype, and positive change orientation (Fugate et al., 2012) matched the enthusiast prototype. However, other constructs fitted only a small part of a prototype, such as change fatigue

(Bernerth et al., 2011), fitting within jaded but lacking a behavioral dimension. Our analysis suggests that current measures omit essential information in not including both positive and negative change valence; thus, there is a need to develop more comprehensive measures. Indeed, an exciting possibility is that measures could be developed to quantify each prototype. We recommend psychometricians develop measures that encapsulate either specific prototype constructs or identify which orientation an employee holds at a point in time. The advantage of robust measurement is the ability to monitor larger samples of employees across a broader range of work situations and over time. More comprehensive measures can potentially support more sophisticated analytical techniques such as latent profile analysis (Woo et al., 2018), latent change score modeling (Kaltianen et al., 2020), and qualitative comparative analysis (Misangyi et al., 2016) to test each prototype's evidence further.

Our analysis revealed the episodic change perspective predominated across papers on employee change orientations, with the continuous change perspective present to a lesser extent. The combination of top-down and continuous change was related to the jaded prototype, whereas research taking a bottom-up perspective was fundamental to identifying the challenger prototype. Thus, further research taking the less common bottom-up or continuous change perspectives may be fruitful for evaluating or elaborating the prototypes distinguished here and identifying additional prototypes.

Limitations. For our analysis, we concentrated on change orientation concepts from the peer-reviewed academic literature, starting with the qualitative research studies and then using quantitative and conceptual papers to challenge the emerging categories. While this inductive approach has benefits, including comprehensiveness, it implies several limitations. First, despite our attempts to be inclusive, we may have missed studies that

could have furnished details to describe the prototypes more fully. Second, our focus on employees meant we largely excluded the literature on leaders, managers, and change agents. While we have no reason to expect different change orientation prototypes to have emerged, there may be further prototypes specific to these groups due to their power and oversight. A third limitation is that our framework has considerable grey space, indicating a lack of evidence; however, we see this as an exciting opportunity, as it may indicate undiscovered change orientations that are transitory and, therefore, hard to measure. We would also acknowledge that based on the large amounts of research supporting the defender prototype, we considered adding a third dimension of approach versus avoidance motivation (Elliot, 2006). However, the other five prototypes yielded insufficient evidence, meaning we could not develop a solid third dimension. We note it here as a possibility for future research. Acknowledging these limitations, we now provide suggestions for future research and theorizing.

4.6 Research Agenda

Build richer employee change orientation descriptions. A vital next step is to evaluate the validity of the change orientation prototypes, develop more detailed descriptions, and assess whether additional orientations exist in the interstitial spaces between the six prototypes identified thus far. The defender category has the richest and most diverse evidence base, yielding a detailed picture of this orientation. Contrasting this, both challenger and jaded prototypes have smaller evidence bases—enough to give confidence that they exist but not enough to provide a detailed account of their manifestation in various settings. While the challenger prototype has clear links to proactivity (Chamberlin et al., 2017; Griffin et al., 2007), and the jaded prototype links to

burnout (Maslach et al., 2001), in both cases, more work is needed to ascertain the commonalities and distinctions with these neighboring constructs.

Future research may test and strengthen the typology we present, particularly in furnishing empirical evidence to develop prototype descriptions further. While we have quantified the foundational literature that yielded the six prototypes, this does not indicate which prototype is more common either to employees generally, to specific change contexts, or to change management approaches. For example, the large volume of research on the defender orientation could be due to change management focusing on implementing change successfully and identifying change resistance—as offered by defenders—as synonymous with change failure (Oreg et al., 2018). However, to measure the prevalence of different change prototypes, we need robust measures; otherwise, we risk over-identifying the prototypes for which we have the most sophisticated measures, that is, the defender.

Exploring ambivalent change orientations. A key benefit of our configurational framework is that it not only positions the more coherent change responses that emerge consistently across studies, but it also distinguishes change ambivalence prototypes which, while theorized (Piderit, 2000), have not been well defined to date. This framework accentuates our typology's worth by showing a nuanced picture of employee responses to change by considering positive and negative change valence as two separate dimensions rather than a continuum, with a clear benefit of detecting three distinct ambivalent change orientations and indicating where other ambivalent orientations may exist. Building from this approach, we encourage research to explore these ambivalence orientations. Further, we suggest investigating whether ambivalent change orientations reflect adaptive coping strategies, which allow employees to continue functioning while they experience uncertainty and changing demands (Chen & Reay, 2020).

Stability, transitions between, and trajectories of change orientations. The change orientation prototypes are state-like, and many of the employee narratives and longitudinal studies in our review indicated employee responses to change alter over time and differing circumstances (e.g., Bindl, 2019; Chen & Reay, 2020; Huy et al., 2014). Our framework also suggests grey zones that may represent (potentially fleeting) transitional types that are harder to identify; for example, an employee that vacillates between positive and negative change valences while gathering information about a change. Trajectories of employee change orientations across times and specific change contexts could be fruitful research areas.

First, longitudinal research is needed to understand the stability of these change orientations. Insights can come from both qualitative longitudinal studies (e.g., Bindl, 2019) and quantitative longitudinal research using techniques such as diary studies with repeated measures (e.g., Ohly et al., 2010) tracking constructs related to the prototypes. Quantitative research is dependent on the development of valid measures of change valence. For example, Fugate and Soesnen (2018) used the compliance with change behavioral reaction measure (Herscovitch & Meyer, 2002), finding a relationship between positive change appraisals but not the negative appraisals as hypothesized, which they suggest indicates compliance with change represents a broad conceptual space than its conceptual definition. Our identification of two distinct ambivalent change orientations, the half-hearted and the pragmatist, offers a way to broaden the compliance construct and progress behavioral support for change measure development.

Second, given the implied malleability of employee change orientations, further insights are needed on transitions between change orientations. Two recent studies furnish evidence that change orientations are amenable to change, with employees moving both to

more negative or more positive orientations. A longitudinal study of middle managers over a long period of radical change showed how they transitioned to a more negative activated state overall: From supporters—equivalent to pragmatists in the current framework, to mutineers—equivalent to defenders (Huy et al., 2014). As a second example showing the opposite, in a longitudinal qualitative study tracking a multidisciplinary team through a successful transition, employees moved to reduce their negative orientation and increase their positive orientation, from the equivalent of defenders, through pragmatists, then on to enthusiasts (Chen & Reay, 2020). We see this as a place for reflective narrative research (e.g., Bindl, 2019; Sonenshein, 2010), where employees describe their transitions throughout the change and linking this with sensemaking research (Maitlis et al., 2013).

Third, tracking employee change orientations' development and decay across time will be critical to understanding employee orientations toward continuous and ongoing change at work (Bouckenooghe, 2010; Keifer, 2005). Such trajectories can be surfaced through longitudinal analysis techniques such as person-centered growth mixture modeling of trajectories in mergers and acquisitions (e.g., Edwards et al., 2017) and organizational support (e.g., Caesens et al., 2020) or latent change score modeling used to analyze the interplay between work engagement and change appraisals across time (Kaltiainen et al., 2020).

What are the antecedents and consequences of each change orientation? In developing the typology and configurational framework of employee change orientations, we intend to promote theory development. Theory development could focus on a single change orientation or more broadly encapsulate the full range of orientations; it might detail processes for employee transitions between orientations or identify the optimal employee change orientations for rapid employee-led improvement to enable team or organizational

performance. Further, we encourage theorizing related to the change conditions, context, and process in an organization and how this links to the development of employee change orientations. Recent longitudinal research has demonstrated the role of work engagement as both an antecedent and an outcome in trajectories of employee change appraisals (e.g., Kaltiainen et al., 2020). Taking the jaded prototype as an example, this stems from prolonged top-down imposed organizational change (e.g., McMillan & Perron, 2020; Stensaker et al., 2002), which raises the question of whether a top-down change contributes to a more negative change orientation than a bottom-up change? Is it the amount of change (e.g., total or over some threshold amount) or a specific kind of change (e.g., work redesign, new technology) that triggers the jaded reaction? What are the consequences for jaded employees' wellbeing, performance, and willingness to engage in citizenship behaviors? This typology can be leveraged to allow such constructive research questions to emerge.

Interactions between employees and the impact on change orientations. Another intriguing investigation area is the potential interactions between employees with identical, neighboring, or opposing change orientations. For example, Gilstrap and Hart (2020) theorized about the interactive role of two types of proactive employees, performers, and prescribers, in initiating change and bringing about stability. Thus, can employees in one change orientation influence those with different change orientations, such as appear to occur for enthusiasts' who act as change champions (e.g., Herscovitch & Meyer, 2002; Sonenshein, 2010) to convert employees with a negative orientation to transition toward a positive orientation? Moreover, does cooperation or conflict predominate when different types work together, such as defenders and enthusiasts? Examples exist where employees formed a bond in a "making-do" response (McCabe, 2014) and where employees unhappy

with a change program bullied a fellow employee who was very supportive of the changes (Alcadipani et al., 2018). We also know from the work engagement literature that frequent communication with engaged employees can positively influence performance (Bakker & Xanthopoulou, 2009). Similarly, there may be positive benefits from employees communicating with enthusiast employees or other crossover types; these warrant investigation. Understanding how such interactions unfold between employees with different change orientations could have significant implications for change managers and HRM researchers more broadly.

4.7 Practical Considerations

For organizations, employee change orientations are broader and more complex than merely supporting versus resisting the change at hand. Human resource managers should heed employee feelings, thoughts, and behaviors toward change to gauge employees' change orientation. This exploration could be as simple as conversations with employees about how they feel, think, and intend to act given current changes in the organization and listen to their responses. Patterns of responses may link clearly to the prototypes we have identified. For instance, is the angry and frustrated employee a defender who wants to stop change? Or are they a challenger trying to improve things but perhaps needing support to do this? These employees would require different management responses: The defender may need to have their concerns taken seriously and addressed, whereas a challenger may need support and coaching to navigate change; in both cases, such additional support may enable these employees to shape changes, so they are more beneficial to the organization.

The three ambivalent prototypes may be particularly useful to practitioners, guiding conversations to understand the complex mix of employees' feelings, thoughts, and actions. Practitioners may benefit from investigating employees demonstrating limited change compliance and distinguishing between those who are calmly taking change in their stride as pragmatists from those complying under duress as the half-hearted. Thus, it may be that the pragmatists need recognition of their efforts to keep the wheels turning. In contrast, the half-hearted—who hold negative feelings and thoughts about the change—may indicate issues in the change management process, such as a lack of employee participation or unpalatable change, which require closer investigation. Practitioners could also look for jaded employees who may be overwhelmed by change, considering the change loading on employees and the potential impact this could have on employees' wellbeing and performance and potential crossover effects on other employees.

4.8 Conclusions

In developing this paper, our objective was to leverage more than 70 years of research on employees' responses to change to present a typology of change orientation prototypes and a configurational framework. We aimed to explain consistent orientations (strongly positive or negative valence) and ambivalent orientations to change (both positive and negative valences). We identified a set of six employee change orientation prototypes and developed a neutral, activation-appropriate vocabulary to label each of these. In doing so, we hope to redirect change researchers away from the continual rehashing of the resistance versus support arguments and instead open up new frontiers in micro-level change research. We demonstrate the importance of uncoupling positive and negative change valence from a continuum approach and advocate that change researchers treat positive and negative responses as two separate dimensions, allowing for ambivalent

change orientations. Additionally, incorporating the strength of associated activation or energy level for both positive and negative dimensions improves over the commonly used passive to active continuum, as even minimal compliance with change does involve some level of activation. We provide an extensive research agenda, noting this is just a starting point, and we urge researchers to develop theory and gather evidence that redresses the predominantly passive and negative representation of employees that has pervaded the change literature. Instead, we encourage researchers to recognize employee change orientations' full complexity, which we believe will help employees and organizations more successfully navigate change.

CHAPTER 5: Latent Profiles of Employee Change Orientations to Continuous Change

Chapter 4 - Preface

Chapter 5 brings together the evidence from the previous chapters. Specifically, given the evidence of change ubiquity identified in Chapter 2, I return to explore employee change orientations to continuous change. The conceptual typology of employee change orientations developed in Chapter 4 provides the theoretical basis for exploring change orientations profiles concerning continuous change. The employee-centered typology in Chapter 4 implies that discrete groups of employees are likely to hold distinct change orientations based on the combination of change cognition, affect, and behavior. Chapter 5 operationalizes the findings from the three previous chapters to explore latent profiles of employee change orientation, using a two-study research design. The objectives of this study are threefold. First, to explore the extent to which concurrent measures of change affect, change cognition, and change behavior can be used to identify distinct profiles of change orientations. Second, if distinct profiles emerge, assessing how well they align with the profiles predicted in Chapter 4. Third, to examine how the empirically derived profiles of change orientation relate to the antecedents of job insecurity, hope, and helplessness; and distal outcomes of job satisfaction, work exhaustion, organizational citizenship, and intention to quit. I presented Study 1 at the 2020 ANZOPOB conference in Canterbury and submitted Study 2 to the 2021 ANZOPOB conference in Auckland. This chapter is presented in a long conference paper style. Following further feedback, this paper will be developed for publication.

5.1 Introduction

Change at work is ubiquitous, being experienced by over 70% of employees at any point in time (Brazzale et al., 2021). Change ubiquity implies that change at work will feature in most employees' working lives as an everyday experience. These continuous and multiple cumulative changes, overlapping in time and content, have been labeled as ongoing change (Dutton et al., 2001; Kiefer, 2005). The label continuous change also includes the “everyday contingencies, breakdowns, exceptions, opportunities, and unintended consequences” (Orlikowski, 1996, p. 65) that employees experience as change is enacted. We define continuous change as the culmination of all perceived ongoing, incremental, and emerging changes, both imposed and self-initiated, as experienced and enacted by the employee. Despite a burgeoning individual-level change literature, continuous change has received little attention as this literature is focused on employee reactions to distinct episodes of change (Bouckenooghe, 2010; Oreg et al., 2011), typically—known as the episodic change paradigm (Weick & Quinn, 1999). In this paper, we ask: What are employees' thoughts, feelings, and behaviors toward continuous change? Moreover, is it possible to identify distinct profiles of employee change orientations? Furthermore, do these align with those identified in traditional employee change reactions research?

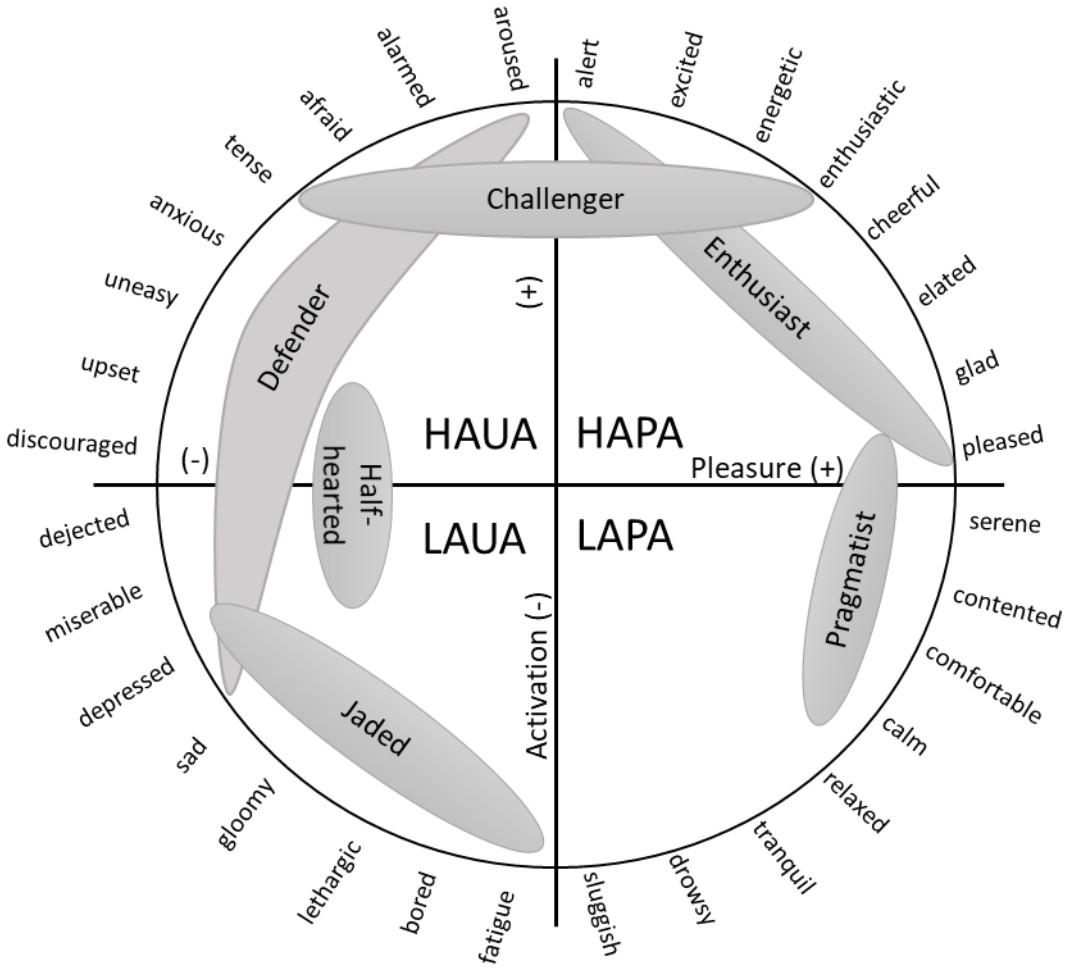
To explore these questions, we focus on employee change orientations. Chapter 4 defined an employee change orientation as a combination of an employee's feelings, thoughts, and behaviors about change. This change orientation is a product of positive and negative valence toward change, where each change valence can vary in strength. We also draw on aspects of the employee-centered conceptual framework outlined in Chapter 3, drawing on some of the antecedents and outcomes from this framework. Additionally, we

include change reaction activation as emphasized by Oreg et al. (2018). To do this, we apply the well-validated four-quadrant circumplex of job-related-affect (Warr et al., 2014). Warr et al. (2014) provide a circumplex model of affect based on the Russell (2009) core-affect model with two axes, pleasure, and activation, with illustrative affect states on the perimeter reflecting combinations of these two. Figure 5-1 depicts the six change orientations identified in Chapter 4 on this circumplex model. The placement of each orientation is based on the analysis drawn from each of the contributing papers (see Chapter 4 for further details). For example, the Defender has the broadest range of unpleasant affect, from the very-high activation unpleasant core-affect such as anger and fear (e.g., Alcadipani et al., 2018; Oreg et al., 2018), and lower activation core-affect such as sadness (Smollan, 2011). The enthusiast orientation was labeled this due to the domination of high activation positive affect (e.g., Chreim, 2006; Mishra & Spreitzer, 1998).

These empirical studies test whether distinct employee change orientation profiles concerning continuous change can be identified and whether these orientation profiles share similar properties to those identified in episodic change research. To do this, we use validated measures of employee reactions to change. The studies capture valence, the positive and negative change orientation, using a mixture of positive and negative core-affect, cognitive and behavioral measures of change reactions. Further, this more fine-grained approach implies that many possible combinations of indicators will be ambivalent—mixed thoughts, feelings, and actions toward change (Piderit, 2000; Rothman et al., 2017). To explore this complex combination of variables and typology of orientations, we use a person-centered approach to which we now turn.

Figure 5-1

Employee Change Orientation Core-Affect Mapped on to the Four-Quadrant Circumplex



Note. The four-quadrant core-affect circumplex is adapted from Warr et al. (2014, p. 343).

A person-centered approach to employee change orientations. Person-centered approaches work by aggregating individuals based on shared characteristics assuming heterogeneity in the data, whereas in variable-centered approaches, homogeneity in the population is an assumption (Woo et al., 2017). The employee change literature primarily features variable-centered approaches (Bouckenooghe et al., 2021; Straatmann, Rothenhöfer, et al., 2018), contributing to understanding how specific change attitudes relate to antecedents. We use the person-centered technique of latent profile analysis (LPA)(Wang & Hanges, 2011) to complement this research and identify sub-populations known as profiles. We characterize these profiles as employee change orientations in this study. A typological approach is applied, with clusters derived from quantitative data using statistical analysis applying an inductive, theory-building model (Gabriel et al., 2015; Woo et al., 2018). Person-centered approaches can also extend our understanding of how various employee change orientations are differentially related to antecedents and outcomes commonly used in variable-centered research (Wang & Hanges, 2011).

Profiles that emerge from the person-centered approaches can differ from each other both qualitatively (shape) and quantitatively (level) (Gabriel et al., 2015; Marsh et al., 2009; Morin & Marsh, 2014). Quantitatively distinct profiles vary in the level of profile indicators, meaning there could be a profile where individuals are high for all indicators and another profile where individuals are low or overall moderate on all indicators. Qualitatively distinct profiles show a shape difference. Meaning they differ across indicators, such as high in one indicator and low in others. This aspect of person-centered analysis will be helpful to identify the ambivalent change orientation predicted in our theoretical typology (see Chapter 4), which has a mix of positive and negative feelings, thoughts, and behaviors.

The employee change orientation framework proposed in Chapter 4, has been adapted into a hypothetical taxonomy of change orientation profiles to guide this research (see Table 5-1). This representation of the configurational framework includes both shape and level related to the theoretically expected profiles. We present this as the starting point for exploration, expecting distinct profiles to emerge from the LPA. These profiles would be qualitatively distinct regarding change positivity and change negativity. Profiles are differentiated quantitatively on the activation level of the qualitative aspects of change negativity or positivity.

Table 5-1

Hypothetical Employee Change Orientations by Shape and Level

		Shape		
	Activation	Change positivity	Change negativity	**Orientation by level**
Level	High	Challenger Enthusiast	Challenger Defender	*Challenger* *Enthusiast, Defender*
	High-moderate	Pragmatist	Half-hearted	*Pragmatist, Half-hearted*
	Low-moderate	Half-hearted	Pragmatist, Jaded	*Jaded*
	Low	Defender, Jaded	Enthusiast	--
	Orientation by shape	*Enthusiast* *Challenger* *Pragmatist*	*Defender* *Half-hearted* *Jaded*	

First, we explore the usefulness of using core affect activation and valence measures, change cognitions, and change behavior simultaneously to identify distinct change orientation latent profiles concerning continuous change. Second, if change

orientation latent profiles can be identified using this approach, we investigate whether they align with those predicted in the episodic change literature or are unique to continuous change. Third, we ask, are there antecedents that can predict class membership and distal outcomes that differentiate between these profiles? Two studies, Study 1 with an exploratory focus and Study 2, confirm the findings of Study 1 and extend the exploration.

5.2 Study 1-Establishing Employee Change Orientations

An inductive approach (Woo et al., 2017) was adopted to establish the profiles of employee change orientations using LPA. Applying the hypothetical configurational framework presented in Table 5-1, change orientation profiles will be measured by a combination of cognitive indicators (positive change cognition, change fatigue, and change cynicism), affective (high and low activation, pleasant-change positive and unpleasant affect-change negative), and behavioral (change positive behavior) elements. Additionally, because our approach is inductive, this leaves open the possibility of identifying other profiles. Thus, the general research question that guides Study 1:

> *Research Question 1*: Does combining affective, cognitive, and behavioral indicators yield quantitatively and qualitatively distinct profiles of employee orientations toward continuous change?

In addition to identifying distinct LPA profiles, we tested these for distinctiveness through the exploration of covariates. Namely, the antecedents—predictors of profile membership and distal outcomes—differentiate profile membership (Nylund-Gibson & Masyn, 2016; Wang & Hanges, 2011; Woo et al., 2018). We explore four antecedents, hope, helplessness, quantitative job insecurity, and qualitative job insecurity, to assess further the profiles that emerge from the LPA. State hope is a recognized predictor of task adaptivity in continuous change environments (Strauss et al., 2015), distinguishing the

more optimistic from those who lack optimism in their current state. The rationale for including helplessness (Ashforth, 1990; Seligman, 1972) as a predictor stems from the qualitative analysis in Chapter 2, in which we detected elements of learned helplessness in the comments of participants experiencing large amounts of change. Finally, we include job insecurity, a known stressor in organizational change (de Jong et al., 2016; De Witte et al., 2016; Hellgren et al., 1999). Job insecurity is a multi-faceted concept, where quantitative job insecurity refers to the potential loss of the job itself. In contrast, qualitative job insecurity refers to any negative impact on job characteristics such as payment conditions or the work itself (Hellgren et al., 1999). Hence both are includes as antecedents.

> *Research Question 2:* Does current state hope, helplessness, qualitative or quantitative job insecurity predict continuous change orientation profile membership?

Additionally, we explored four distal outcomes. Organizational citizenship behavior toward the organization (OCBO) (Lee & Allen, 2002) is included as a broad performance measure. This measure of discretionary effort has been applied as a change consequence variable (Oreg et al., 2011) and reflects employee willingness to work through the disruptions that come with change (Carter et al., 2013; Podsakoff et al., 2000). Job satisfaction and emotional exhaustion are used to gauge employee wellbeing, and these outcomes have commonly been used in individual-level change research as outcome variables (e.g., Fisher, 2010; López Bohle et al., 2016; Oreg et al., 2011; Van Steenbergen et al., 2018). Finally, we also include the intention to quit, a commonly included outcome variable in change research (Oreg et al., 2011). Intention to quit is influenced by many aspects aside from continuous change, and we included it to represent withdrawal (Felps et

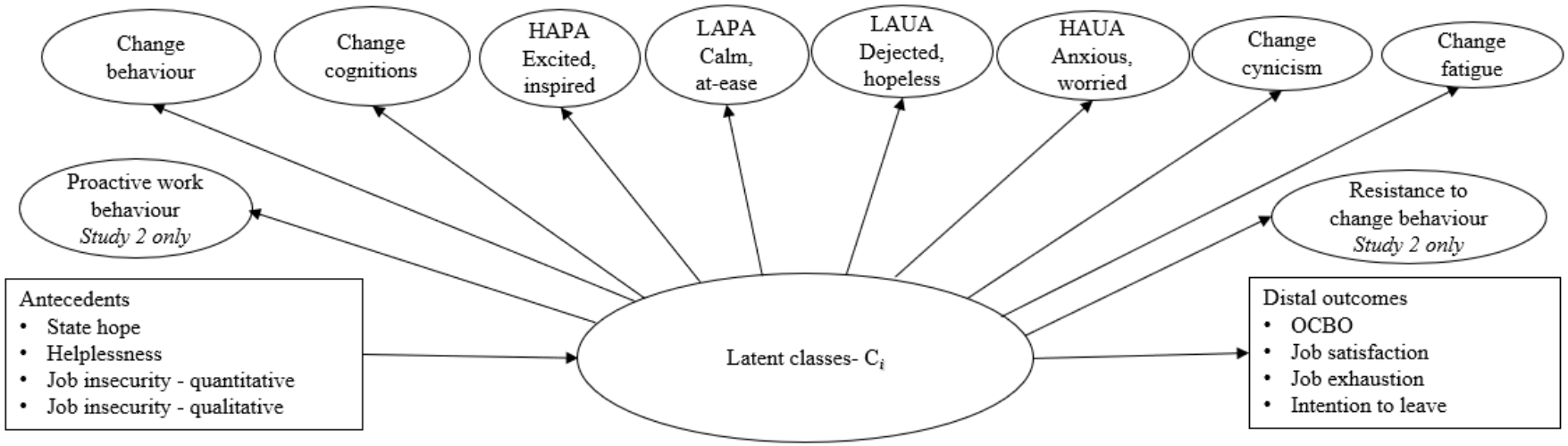
al., 2009) which has been observed in response to excessive organizational change (Stensaker et al., 2002). Hence, we pursued the following research question:

> *Research Question 3:* Does membership of a change orientation profile relate to the exhibition of different levels of emotional exhaustion, job satisfaction, OCBO, or intention to quit?

We use the measurement model described in Figure 5-2 for Study 1 by pulling together the profile indicators at the top of the model.

Figure 5-2

Measurement Model Applied in Studies 1 and 2



5.3 Study 1-Method

Participants and procedures. Participants were recruited in 2019 to complete an online survey of US employees working at least 20 hours per week, using Prolific (www.prolific.co), an online service to connect researchers with participants. We obtained ethics approval for the study through AUTEC, our university's human ethics board (see Appendix E for notice of approval and participant information sheets). The participant information sheet explained that we were interested in employees' responses to change. Participants were paid a small fee for their time.

We obtained initial usable data from 998 participants. As this was a panel survey, the possibility of low-effort responses was anticipated (DeSimone & Harms, 2017; DeSimone et al., 2015) and therefore added various controls to identify these. Specifically, we included an item requiring the participant to write a few sentences and two careless responding items (DeSimone & Harms, 2017). Additionally, we looked at response speed and statistical outliers using Mahalanobis distance (Mahalanobis, 1936) as they are known to be problematic in LPA (Spurk et al., 2020). Through this screening approach, we identified and removed 34 participants, leaving 964 participants. Given our focus on employee responses to continuous change, we asked participants to indicate the amount of change they were currently experiencing on a 1-5 scale, where 1 is none and 5 is a massive amount. For those who indicated 1, no current change at work, we did not record their reactions to change, focusing solely on employees currently experiencing change; 117 participants were currently experiencing no change at work and were removed, leaving 847 participants.

For these 847 employees, there was an even split of male and female participants (male=50%), the average age was 29.6 years (range = 18 to 77), and 73% had some college education. The average work hours per week were 39.1 hours (range = 20 to 80), and the average tenure 7.7 years (range = 1 to 23). The majority worked in the private (for-profit) sector (71%), worked in organizations with more than 500 employees (46%), had an income between $30,000 and $90,000 (59%), and were entry-level or team members (55%), with 24% being team leaders.

Measures

Change Behavior and Change Cognition. The Change Recipients' Reactions Scale (CRRE) (Tsaousis & Vakola, 2018) was adapted to measure the employee reactions to continuous change at work. I only used the behavioral and cognitive items; these are positively worded to gauge positive thoughts and behaviors toward change. When answering this section, we used the following statement to orientate the participant to think about continuous ongoing change: "Change is said to be "an ongoing and continuous feature of work today. We define ongoing changes as all of the changes that are currently taking place in your organization, affecting you or your work. Please think about the current ongoing changes in your organization. How do you feel, think, and intend to act regarding these current ongoing changes?" Participants responded on a five-point Likert-type scale from 1-strongly disagree, to 5- strongly disagree. The CRRE behavior scale comprises five items (α_{Study1}=.86) (e.g., "I am trying to convince others about the benefits of these ongoing changes"; - "I am fighting for the success of the ongoing changes"). Change cognitions were measured using six items ($\alpha_{Study\ 1}$ =.94) (e.g., "I believe the

ongoing changes will benefit this organization"; "I believe the ongoing changes will be very effective for this organization")

Continuous change core-affect. I used the 16 items job-related multi-affect indicator (Warr et al., 2014) to indicate the core-affect of employees related to current workplace changes., I used the following statement to orientate the participants: "Right now, in the present moment, how intensely do you feel about the changes in your work or organization? Please rate the intensity of your feelings right now as they relate to change at work." Participants responded on a five-point Likert-type scale to rate each one-word item from 1-very slightly or not at all, 2- a little, 3- moderately, 4- quite a bit, 5-extremely, as the current core-affect was the focus of our study, I altered the anchors to indicate current feelings rather than the time-based anchors common used in Warr et al. (2014). Four dimensions, each with four one-word items, were used. These were high activation, pleasant affect (HAPA), example item *enthusiastic, excited* ($\alpha_{\text{Study 1}}$=.95); low activation pleasant affect (LAPA) example items *at ease, calm* ($\alpha_{\text{Study 1}}$=.95); low activation unpleasant affect (LAUA) example items *dejected, depressed* ($\alpha_{\text{Study 1}}$=.93); high activation unpleasant affect example, items *anxious, nervous* ($\alpha_{\text{Study 1}}$=.93).

Cynicism about organizational change (CAOC). We gauged negative cognitive beliefs about change using the CAOC measure (Wanous et al., 2000) ($\alpha_{\text{Study 1}}$=.92). A five-point Likert-type scale was used from 1- strongly disagree, to 5-strongly agree, for six items (e.g., "Most of the programs that are supposed to solve problems around here will not do much good"; "The people responsible for solving problems around here do not try hard enough to solve them")

Change fatigue. Cognitive beliefs about the amount of change, and in particular too much change, were gathered using the change fatigue measure (Bernerth et al., 2011) ($\alpha_{Study\ 1}$= .93). ". A five-point Likert-type scale was used from 1-strongly disagree to 5-strongly agree across six items (e.g., "Too many change initiatives are introduced at my organization"; "We are asked to change too many things at my organization")

Hope. The six-item hope work context scale (Snyder et al., 1996) ($\alpha_{Study\ 1}$= .84) was used to gauge participants' here and now sense of hope. Participants responded on a five-point Likert-type scale, from 1 - definitely false, 2 -somewhat false, 3- neither true nor false, 4 - somewhat true, 5 - definitely true (e.g., "At the present time, I am energetically pursuing my work goals"; "There are lots of ways around any work problem that I am facing right now.")

Helplessness. This captures employees' perceptions that their actions are futile and will not affect outcomes and was measured using a 6-item scale short-form scale (Ashforth & Saks, 2000) ($\alpha_{Study\ 1}$=.93). Participants responded on a five-point Likert-type scale from 1 strongly disagree to 5 strongly agree (e.g., "I have little influence over what happens around here" "I do *not* have enough power to make any real changes").

Job insecurity-quantitative and qualitative. In line with the distinction of quantitative and qualitative job insecurity, we measured both using a two-factor measure of job insecurity (Hellgren et al., 1999). Quantitative job insecurity ($\alpha_{Study\ 1}$=.85) is defined as perceived powerlessness to maintain job continuity; three items were used, with an example item being "I am worried that I will have to leave my job before I would like to." Qualitative job insecurity ($\alpha_{Study\ 1}$=.84) is the anticipated loss of valued job features; this

was measured with four items, for example, “My pay development in this organization is promising (R).”

Organizational citizenship behavior- organization (OCBO). We measured this with an eight-item measure (Lee & Allen, 2002*)* ($\alpha_{\text{Study 1}}$=.90). Participants were asked to indicate how often they used each behavior from 1-never to 5-always (e.g., “Show pride when representing the organization in public”; “Offer ideas to improve the functioning of the organization”).

Job satisfaction. We used a five-item short-form job satisfaction measure (Judge et al., 2005) ($\alpha_{\text{Study 1}}$=.90), with participants responding on a five-point scale from 1-strongly disagree 5-strongly (e.g., “Most days I am enthusiastic about my work”; “I feel fairly satisfied with my present job”).

Work Exhaustion. A four-item short-form measure of work exhaustion (Ahuja et al., 2007; Moore, 2000) ($\alpha_{\text{Study 1}}$=.90) was used. Participants rated how often they experienced the feelings listed concerning their current work or job on a five-point scale, ranging from 1- almost never, 2-rarely, 3-sometimes, 4-often, and 5-very often (e.g., “I feel emotionally drained from my work”; “I feel used up at the end of the workday”).

Intention to quit. A four-item intention to quit measure was used (Sager et al., 1998) ($\alpha_{\text{Study 1}}$=.90). I asked participants how likely they would quit their jobs in the next three months, six months, one year, or two years. I scored this on the five-point scale from 1-extremely unlikely to 5-extremely likely.

Amount of change. The perceived amount of change was gauged using a one-item measure used in the Chapter 2 study. We asked participants to indicate the amount of

change they were currently experiencing at work, responding on a scale of 1-none, 2-minor amount, 3-modest amount, 4-moderate amount, 5-massive amount. Only those scoring two or above were included in this analysis.

Analytic approach. To conduct the LPA, I followed the guidelines proposed by Morin, Boudrias, et al. (2016) and Ferguson et al. (2019), which, in brief, comprise five stages: (1) a variable-centered approach—CFA—to assess the measurement model and generate factor scores; (2) iterative evaluation of models; (4) pattern interpretation of the models; (5) covariate analysis. First, participant responses were represented using the confirmatory factor analytic (CFA) model. In the CFA model no cross loading was allowed, with each item only allowed to load onto the factor it was designed to measure. The measurement model reflects the tridimensional model of change attitudes with eight correlated factors, four representing change core-affect (HAPA, LAPA, LAUA, HAUA), three representing cognitions (change cognition, cynicism about organizational change, change fatigue), and one factor representing change behavior (change behavior). The CFA demonstrated good psychometric properties; I used the output of the CFA to calculate factor scores that provided profile indicators. While using a complete latent variable approach would fully control for measurement error, these models are often overly complex and fail to converge. Hence scale scores are more commonly used in LPA; the downside of this approach is that they do not include any weighting for measurement error (Morin, Boudrias, et al., 2016). We apply the approach of calculating factor scores for use in the LPA, factor scores do partially control for measurement error by giving greater weighting to items with lower levels of measurement error and are therefore superior to other common approaches of using scale scores, such as sums or averages item indicators (Morin, Boudrias, et al., 2016; Skrondal & Laake, 2001).

The goodness of fit indices we used to describe the fit are: the comparative fit index (CFI), the Tucker-Lewis index (TLI), standardized root means square residual (SRMR), and root-mean-square error of approximation (RMSEA). Model fit values of CFI (≥ .9), TLI (≥.95), RMSEA(≤..08), SRMR(≤.08) were used to select the best model (Hu & Bentler, 1999; Marsh et al., 2004). I conducted all analyses using Mplus Version 8.6 (Muthen & Muthen, 1998-2021). we provide examples of the input code in **Appendix D**. As recommended by Morin, Boudrias, et al. (2016), I considered other models. A bifactor-CFA was discounted as theoretically implausible. Second, I compared the hypothesized CFA with an exploratory structured equation model (ESEM); this did not significantly improve fit over the CFA measurement model, and therefore the CFA model was retained. The resultant CFA model had a reduced number of items in the change behavior measure as items one and three had very low factor loadings, indicating they were not performing well with the changes made to capture continuous change. We achieved the criteria for an acceptable model when the poorly performing items were removed, with RSMEA of 0.05 (90% confidence interval .04, .05), CFI of .95, TLI of .95, SRMR of .04. The CFA factor scores are recorded as standardized units (M=0, sd=1). We report the correlations among all constructs in Table 5-2.

Second, an iterative evaluation of latent profile models was conducted. This is a widely applied, inductive process to ascertain the best fitting number of profiles (e.g., Gabriel et al., 2015; Li et al., 2019; Spurk et al., 2020). This stepwise process aims to reveal (*k*) latent profiles made up of individual responses that share an interpretable pattern of responding (Ferguson et al., 2019; Marsh et al., 2009). We began by specifying two latent profiles and continued adding profiles sequentially until the increase in model fit no longer warranted creating another profile. LPA extracted the profiles based on each participant's

unique combination of positive and negative change orientation latent variables. We used the default assumptions in Mplus of variance homogeneity and local independence, as past research has found no improvement to enumeration indexes from overriding these (Peugh & Fan, 2013). The models converged on a replicated solution that is assumed to reflect the real maximum likelihood confirmed in Mplus.

Third, model fit interpretation is the choice of a best fit LPA model judged on theoretical and statistical grounds (Ferguson et al., 2019; Morin, Boudrias, et al., 2016; Nylund et al., 2007). Thus, our theoretical hypotheses inform our choice (Spurk et al., 2020; Woo et al., 2018) and statistical criteria that we adopt from Morin, Boudrias, et al. (2016), with each model compared against the previous model. The seven fit statistics recommended by Morin, Boudrias, et al. (2016) include Log-Likelihood(LL); Bayesian Information Criteria (BIC); Akaike's Information Criteria (AIC); Consistent AIC (CAIC); sample-size Adjusted BIC (ABIC); the adjusted Lo, Mendell, and Rubin test (aLMR, Lo et al., 2001); Bootstrap Likelihood Ratio Test (BLRT). Additionally, Morin et al. (2016) suggest evaluating entropy to measure precision and classification accuracy, varying between 0 and 1, with higher values indicating lower classification error and ideally values greater than 0.8 (Morin, Boudrias, et al., 2016). There are no clear cut-off score rules for LPA across these fit statistics. Rather, profile selection depends on the combination of LL, AIC, BIC, CAIC, and ABIC, with the best profile solution having these indicators lower than the previous solution. aLMR and BLRT should be significant ($p<.05$), and entropy should be greater than 0.8. For the classification of individuals, Morin, Boudrias, et al. (2016) recommend that the smallest profile be made up of at least 5% of the sample.

Fourth, the patterns of the latent profiles are evaluated for theoretical reasonableness. This is a qualitative step, where the pattern of scores for these individuals

should make sense within the research. We compared the profiles identified with the hypothetical model (see Table 5-1) and identified patterns congruent with the predicted typology.

Fifth, we conducted a covariate analysis. The automatic three-step approaches to modeling auxiliary covariates, as provided in MPlus (Asparouhov & Muthen, 2013, 2014, 2021), were applied to the covariate analysis. These three-step auxiliary approaches to covariate analysis in LPA are the subject of ongoing research (Morin et al., 2020; Nylund-Gibson et al., 2019); the current recommendation for continuous variables with high entropy (>0.8) and a good sample size (>500 participants) an automated auxiliary stepwise approach is an appropriate analysis technique (Morin et al., 2020). To ensure we used an equal basis to explore the covariates, I also calculated factor scores for auxiliary variables. We analyzed the antecedents (R3STEP) and the distal outcomes (BCH) separately as recommend by Lanza, Tan, et al. (2013). For the antecedent analysis, we used the automated R3STEP command in Mplus (Asparouhov & Muthen, 2014; Vermunt, 2010). This method performs a series of multinomial logistic regressions to assess whether an increase in an antecedent would increase a participant's odds of being in one profile versus another. The BCH auxiliary method estimates the mean of continuous distal outcomes across latent classes (Asparouhov & Muthen, 2021) was chosen as this analysis does not alter the latent class model.

5.4 Study 1-Results and Discussion

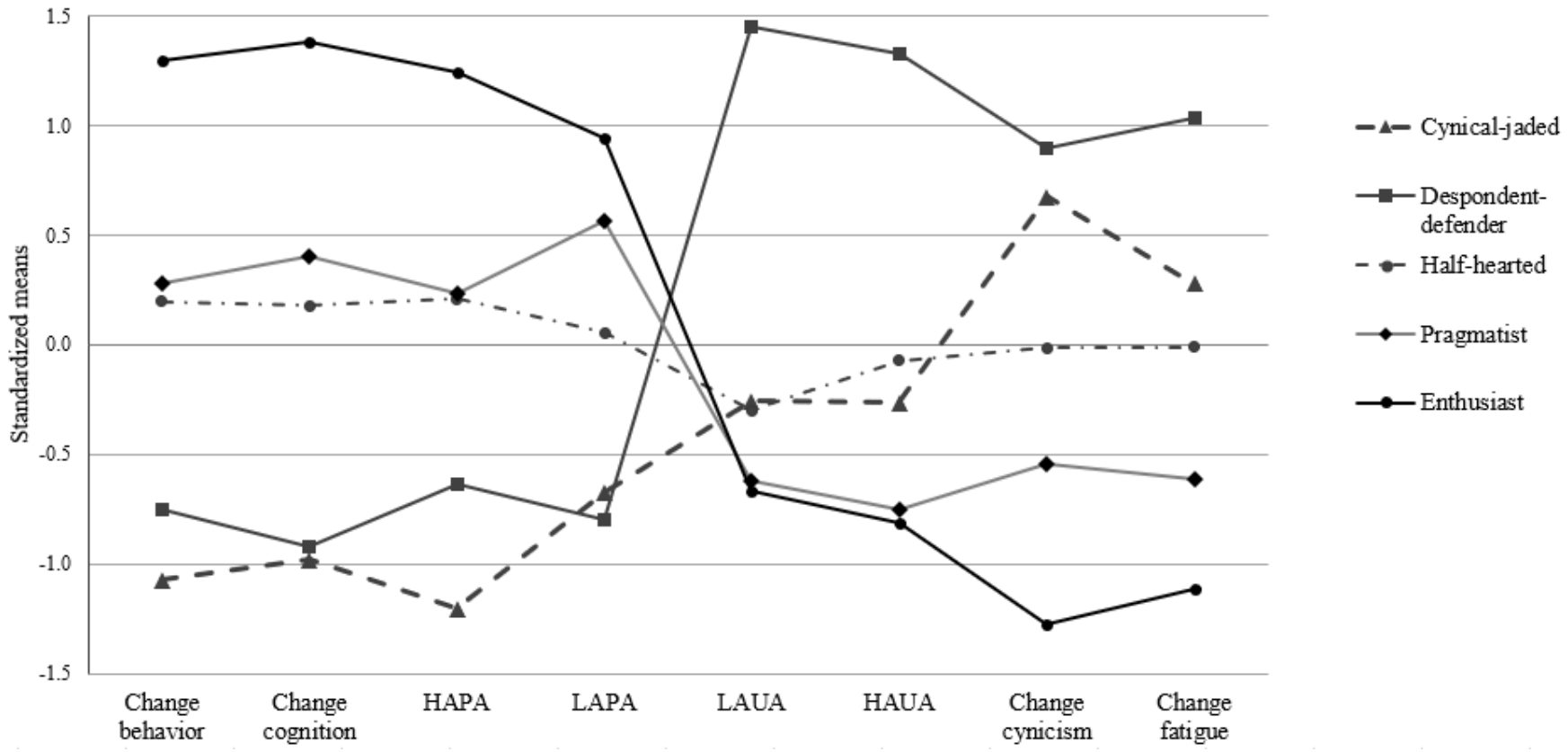
Correlations among constructs are reported in Table 5-2 below the diagonal, with the measure reliabilities reported on the diagonal. Please note that we include the tables for Study 1 and Study 2 after the Study 2 results and the discussion section for readability. All

correlations were significant at $p<.01$ with one exception, namely the correlation of OCBO and HAUA ($r=.09$, $p=.024$); this seems theoretically reasonable as core-affect such as anxiousness are unlikely to be strongly related to OCBO behavior.

Table 5-3 provides the fit statistics for the possible latent profile models tested. We chose a five-profile solution as the LL, AIC, BIC, C-AIC, and SSA-BIC also showed a low score compared to prior models with fewer profiles. Lower scores were also found for the two following models with six and seven profiles, although the rate of decline was reduced. The five-profile solution aLMR was not significant; however, it did become so in calculating the sixth profile. The BLRT was not significant for either solution, and the entropy remained high for both the five- and six-profile solutions. When we compared the characteristics of the five-profile solution to our theoretically derived hypothesis, it was judged a better fit than the six-profile solution, which appeared to over-explain the data. Thus, we retained the five-profile structure (see **Figure 5-3**). We provide the sample mean estimates in Table 5-4.

Figure 5-3

Latent Profiles Based on Standardized Means for Different Employee Change Orientations in Study 1



Three of the profiles identified aligned well with the profiles hypothesized in Chapter 4: half-hearted, pragmatist, and enthusiast types. The remaining two profiles were dominated by change negativity, though it was unclear if they matched the defender or jaded types identified in Chapter 4. To avoid confusion, we have given unique names that include the unclear match to anchor them, the cynical-jaded and despondent-defender. We chose the term cynical-jaded due to the very high level of change cynicism and fatigue, similar to the hypothesized jaded type with high levels of change fatigue and low change positivity. The cynical-jaded have low change positivity coupled with similar levels of negative affect and change fatigue to the half-hearted profile. This profile represents 10% of the sample. The *despondent-defender* profile exhibited very high levels of change fatigue, HAUA, LAUA, and change cynicism, and a low score on the measures of positivity to change, with no evidence of ambivalence. This despondent-defender profile represents 23% of the sample.

The most consistently positive profile is the *enthusiast* and is consistent with the orientation type predicted in Chapter 4. This comprises people with strongly positive responses to change and low negative responses; 12% of the sample had the enthusiast profile. There were two more ambivalent profiles, the pragmatist and the half-hearted. The *pragmatist* profile identified is moderately positive and calm about change and distinctly not change negative, although the pragmatist profile has slightly higher change cynicism and fatigue levels than the highly enthusiastic profile. Almost one-quarter, 22% of the sample, were included in the pragmatist profile. The second ambivalent profile, predicted in Chapter 4 and supported by the data, was *half-hearted.* This group has similar levels of positive change response to the pragmatist, although they are notably less calm, and they

simultaneously have higher levels of negative feelings and thoughts than either the pragmatist or the enthusiast. This represents the half-hearted profiles ambivalent characteristic of knowing and behaving as change needs to happen, but at the same time also feeling and holding negative thoughts about change. This half-hearted profile represents the most extensive group, making up 32% of the sample. Moreover, these two ambivalent profiles – pragmatists and half-hearted – jointly comprise over half of the total sample, showing that most participants had mixed positive and negative responses to change.

In response to Research Question 1—does combining affective, cognitive, and behavioral indicators yield quantitatively and qualitatively distinct profiles of employee orientations toward continuous change? We have shown that it is possible to extract employee change orientation profiles quantitatively using latent profile analysis using change affect, cognition, and behavior indicators. However, when the analysis is reviewed qualitatively, of the six hypothesized profiles in Table 5-1, three have been identified fully—enthusiast, half-hearted, and pragmatist, and two partially—cynical-jaded and despondent-defender, hence the overall match is incomplete. This may have occurred for a range of reasons. First, we adapted our change behavior measure from episodic to continuous change, but it performed less well than anticipated. Precisely, we needed to omit two items due to their low factor scores. The change behavior indicator was also highly correlated to the change cognition indicator even though the measurement model was improved by retaining the two latent factors, suggesting that change behavior was somewhat overlapping with and redundant to change cognition. Second, we did not include a measure of negative change behavior. Nevertheless, the absence of positive change behavior does not indicate negative change behaviors, and therefore it would have been

better to measure negative change behavior separately. This model did not identify the very agentic and proactive challenger profile hypothesized in Chapter 4 which could be because the challenger profile may not apply in the continuous change context, yet it could also be due to the lack of an indicator of change proactivity behavior that characterizes this type. In other words, some further change cognition and change behavior measures might provide further differentiation of profiles.

Next, we turn to the covariate analysis, focused on antecedents and outcomes of change profiles. The antecedent analyses are shown in Table 5-4 and Figure 5-4; these indicated that high levels of hope predicted inclusion in the enthusiast profile. Low levels of hope were related to inclusion in either negative profiles—cynical-jaded or despondent-defender. Inversely, high levels of helplessness were associated with inclusion in the negative profiles, whereas very low levels predicted inclusion in the enthusiast profile. Job insecurity, which is the concern over losing their job (quantitative) and losing work conditions (qualitative), was a significant predictor in the two change negative profiles. The despondent-defender profile had a significantly higher level of quantitative job insecurity than the cynical.

In contrast, there was no significant difference in qualitative job insecurity, concern over the loss of job conditions, between these two change negative profiles. The half-hearted had moderate job insecurity on both factors significantly different from the enthusiast and the despondent-defender. The enthusiast had very low job insecurity, whereas the pragmatist and the half-hearted were more concerned about job security. In response to Research Question 2—does current state hope, helplessness, qualitative or quantitative job insecurity predict continuous change orientation profile membership? These results support linking our qualitative labels to the hypothesized typology. The

combination of low hope and high helplessness supports our hypothesis that the cynical-jaded indicates the jaded type identified in Chapter 4 from the literature. Job insecurity is a recognized workplace stressor and contributor to attitudes and behaviors (Shoss, 2017). Our findings demonstrated the relationship between profile membership and both types of job insecurity with the perceptions of extreme amounts of job insecurity presence or absence related to the unified profiles – despondent-defender, cynical-jaded, and the enthusiast – rather than the ambivalent profiles – half-hearted and pragmatist.

Figure 5-4

Standardized Mean Estimates of Antecedents by Latent Class for Study 1

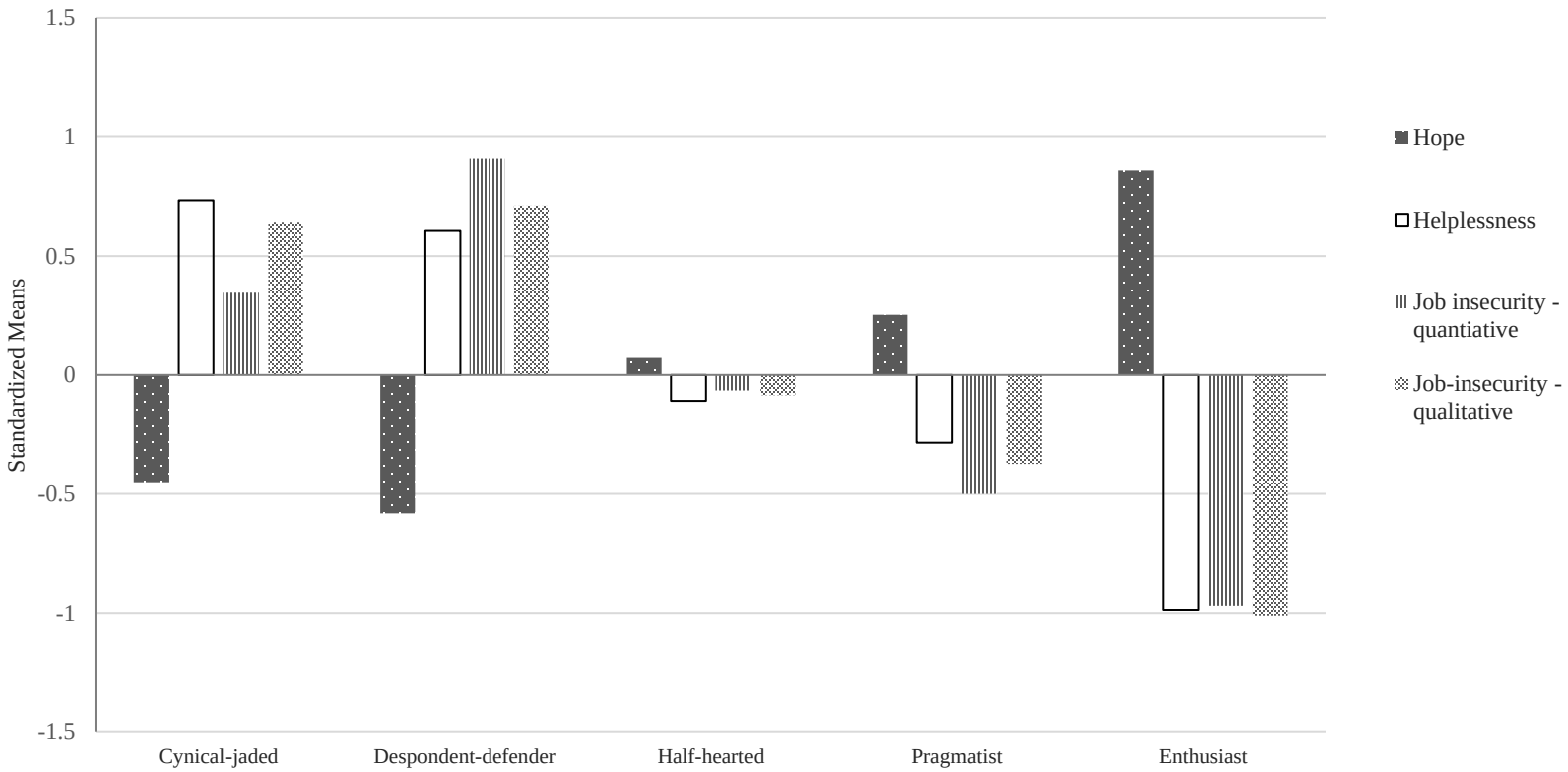
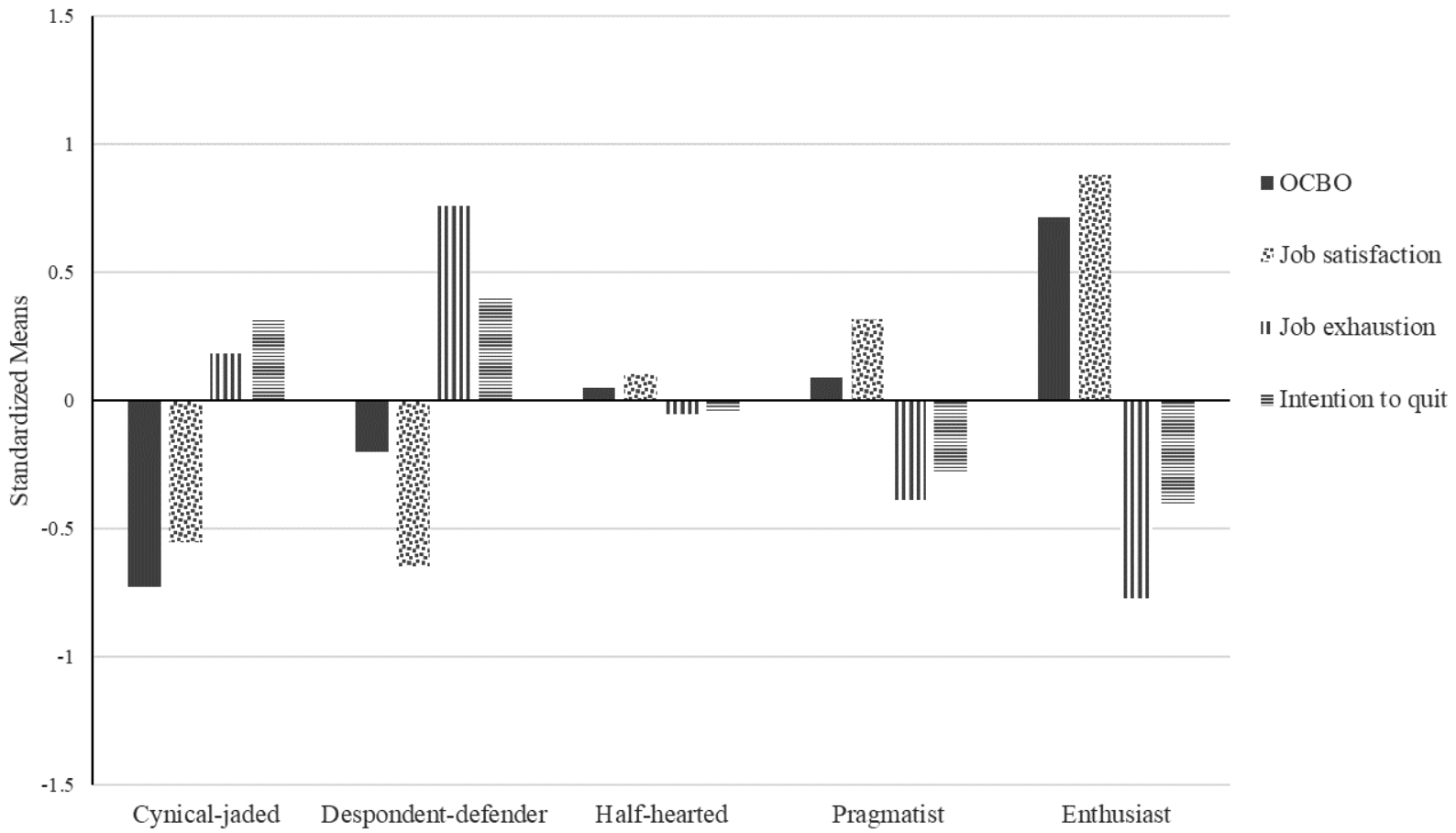


Figure 5-5

Standardized Mean Estimates of Distal Outcomes by Latent Class for Study 1



In the distal outcomes analysis (Table 5-5 and Figure 5-5), we explored how employee change orientation profiles predicted different levels of OCBO, job satisfaction, job exhaustion, and intention to quit. Inclusion in the enthusiast profile was highly predictive of high levels of OCBO, and inversely, being in the cynical-jaded group was highly predictive of very low reporting of OCBO. It is interesting to note that the cynical-jaded profile had significantly lower reporting of OCBO than those in the despondent-defender group. This further supports our hypothesis that this cynical-jaded profile is equivalent to the jaded type identified in Chapter 4, with a sense that they have given up and are no longer contributing anything extra, which is congruent with the absence of OCBO.

Job satisfaction had three bands: the two change negative profiles, the cynical-jaded and despondent-defender, showed very low job satisfaction; the ambivalent profiles of the half-hearted and pragmatist predicted moderate job satisfaction; and the very positive profile of the enthusiast related to very high job satisfaction. For job exhaustion, being in the despondent-defender profile predicted a very high level of job exhaustion, whereas inclusion in the enthusiast profile predicted very low levels of job exhaustion. Being in the cynical-jaded profile predicted significantly less job exhaustion than the despondent defender. In the literature review related to the jaded type, there were examples of employees preserving their energy for their work (Nilsen et al., 2019; Stensaker et al., 2002), potentially explaining why they showed less exhaustion than the despondent-defender profile.

Our fourth and final distal outcome was the intention to quit. Intention to quit was significantly higher in both the cynical-jaded and despondent-defender profiles and

significantly lower in the pragmatist and enthusiast profiles. Concerning Research Question 3—does membership of a change orientation profile relate to the exhibition of different levels of emotional exhaustion, job satisfaction, OCBO, or intention to quit? The four distal outcomes provide evidence supporting these five distinct change orientation profiles. One fascinating finding was the difference in OCBO amongst the two change-negative profiles, with the cynical-jaded profile also being predictive of very low OCBO yet moderate job exhaustion, as if these individuals recognize the need to protect their scarce resources. In contrast, the despondent-defender profile was predictive of moderate OCBO and very high job exhaustion, such that these individuals are still expending energy and suffering the consequences. This difference adds weight to the hypothesis that the cynical-jaded profile is the pattern described as jaded in Chapter 4.

5.5 Study 2-Replicating and Expanding Employee Change Orientations

Study 2 is designed to replicate the empirically derived profiles from Study 1 and address some limitations identified in change cognition and change behavior measures. These are the extreme challenger profile did not surface, and the defender profile was not clearly defined, which could be due to the underperformance of the behavioral and cognitive measures. Finally, we wanted to explore the impact of including responses from those employees perceiving slight to no current change as it is also possible these employees could have an orientation to change. Thus, the overall changes were made to strengthen the model, improve the wording of the change behavior measure and add a further behavioral indicator of negative change behavior and proactive change behavior. Beyond this, we hypothesize that specific patterns change positivity and negativity for each profile. The despondent-defender will have the highest levels of change negativity and the lowest levels of change positivity, whereas the enthusiast has the inverse profile.

Hypothesis 1: Six latent profiles of employee change orientations to continuous change will be extracted as detailed in Table 5-1.

The purpose of collecting a second sample is to assess whether the findings from Study 1 can be replicated, that is, do the five profiles identified in Study 1 emerge from the Study 2 analysis even with the enhanced measurement described earlier, and do they continue to fit the hypothesized types from Chapter 4?

Hypothesis 2: The five employee change orientation profiles – enthusiast, pragmatist, half-hearted, despondent-defender, and cynical-jaded – will be replicated in Study 2.

As noted above, the challenger type did not emerge in Study 1, and one reason for this may have been inadequate change behavior measures. Thus, we added a further indicator of proactive change behavior to assess whether this reveals a challenger profile. The measure is a self-reported proactive work behavior toward the team and organization, and this construct measures perceived proactivity to initiate changes at work (Griffin et al., 2007). Along with high proactive work behavior, a challenger profile would have high HAPA and HAUA, and positive and negative change cognitions.

Hypothesis 3: A challenger profile will be identified that is high in both HAPA and HAUA. It will have both positive and negative change cognitions and have the highest proactive work behavior scores.

The same antecedents and distal outcomes from Study 1 were used in Study 2 since these performed well and aid in the replication. However, we add a note of caution, as the second data collection occurred in April-May 2021, approximately one year after the start of the COVID-19 pandemic. The distribution of these covariates may have altered due to the significant effects this has had on the workforce, as Study 1 was conducted in 2019.

However, we expect similar patterns related to the change orientations profiles but recognize that the proportions may have shifted.

Hypothesis 4: The antecedents will replicate the patterns observed in Study 1. Thus (a) hope will be lowest for the despondent-defender and highest for enthusiast (b) helplessness highest for the despondent-defender, closely followed by the cynical jaded. The lowest helplessness predicts the enthusiast profile. (c) qualitative and quantitative job insecurity will be highest for the despondent-defender closely followed by the cynical-jaded and half-hearted, followed by the pragmatist. The enthusiast will have the lowest levels of job insecurity.

Hypothesis 5: Study 2 will repeat Study 1 concerning profiles as predictors of distal outcomes. Thus, (a) OCBO will be lowest for the two negative profiles of cynical-jaded and despondent-defender and highest for the enthusiast, with moderate levels of OCBO for the two ambivalent profiles of pragmatist and half-hearted. (b) Job satisfaction will be lowest for the despondent-defender and the cynical-jaded, and highest for the enthusiast; the half-hearted and pragmatist profiles will have moderate job satisfaction and slightly higher for the pragmatist. (c) Job exhaustion will be highest for the despondent-defender, with moderate levels for the cynical-jaded and half-hearted, lower for the pragmatist, and lowest for the enthusiast. (d) Intention to quit will be highest for the despondent-defender and lowest for the enthusiast. The half-hearted, pragmatist, and cynical jaded will have a similarly moderate intention to quit.

Further extending the concept of continuous change as an everyday part of all workplaces, we explore the possibility that employees who do not currently perceive

change will likely still have a change orientation. However, this is an under-explored area as studies of employee attitudes to change are typically only conducted on employees who are currently experiencing change due to the prevalence of episodic change research. Study 2 includes participants who indicate little to no change in this study as an exploratory attempt to extend change orientation theory, including a further research question to summarize this line of inquiry.

> *Research question 4:* What is the impact of including employees who perceive they are not currently experiencing continuous change at work on the latent profiles that emerge?

5.6 Study 2-Method

Participants and procedures. For Study 2, we conducted the data collection in April-May 2021. We recruited US employees working at least 20 hours per week as participants to complete an online survey using Prolific (www.prolific.co); participants were paid for their time. The same control methods were used to prevent low-quality responses as in study one. From 727 participants who completed the survey, I identified and removed statistical outliers using the Mahalanobis Distance (Mahalanobis, 1936) as they are known to be problematic in LPA (Spurk et al., 2020). Following this screening approach, I removed 17 responses as suspects or outliers, leaving 710 usable responses.

For the 710 employees in Study 2 (42% female), the average age of 34.5 years (range = 18 to 78), and 82.3% had some college education. The average work hours per week were 39.6 hours (range=20 to 80), the average tenure was 7.7 years (range = 1 to 23). The majority, 68%, worked in the private for-profit sector while 46% worked in organizations with more than 500 employees, with 60% having an income between $30,000

and $90,000 and just under half 45% were entry-level or team members 27% were team-leaders. As noted earlier, the survey was completed in April-May 2021, one year into the COVID-19 pandemic. A noticeable difference is an increase in the amount of change employees reported, with most participants in Study1 reporting low levels of change (Study 1: minor= 51%, modest=31%, moderate=15%, massive=3%), whereas in Study 2, there was a shift to moderate, and the massive response – while still small – more than doubled (Study 2: minor=31%, modest=35%, moderate=26% and massive=8%). In Study 2, 85/710 participants indicated no changes, 12% of the total sample.

Measures. All of the measures from Study 1 were reused in Study 2, with one amended scale and two newly introduced scales

Change recipients reactions scale- Behavioral and Cognitive (CRRE): We adapted the CRRE scale (Tsaousis & Vakola, 2018) to measure employee reactions to continuous change at work. In Study 1, we found that two items did not perform well in the CFA and excluded these from the LPA. To improve this instrument's performance in Study 2, we changed the presentation of the items from an intermix of behavioral and cognitive items to two separate blocks representing the cognitive and behavioral items separately. We also revised the introduction to read, “We define ongoing changes as all of the changes that are currently taking place in your organization, affecting you or your work. Please indicate your views about the current ongoing changes in your organization.” Participants responded on a five-point Likert-type scale from 1 - strongly disagree, to 5 - strongly disagree. Positive change cognitions were measured using six items (α_{study2}=.96) (e.g., “I believe the ongoing changes will benefit this organization”; “I believe the ongoing changes will be very effective for this organization”). The change behavior measure was further adapted to make it more distinctly behavioral by moving to a frequency scale asking, “In the past

month how frequently have you….” and used a scale of 1=never, 2=rarely, 3=sometimes, 4=often, and 5=many times. I also simplified the wording of the items (e.g., “Tried to encourage your colleagues to adopt these ongoing changes” “I am trying to convince others about the benefits of these ongoing changes”; “Fought for the success of the ongoing changes”). Positive change behavior was measured with five items (α_{study2}=.92). These changes improved the reliability of the instruments (see Table 5-2) and reduced the correlation between these two measures of change cognition and change behavior from r_{study1}=.87 to r_{study2}=.67.

Proactive work behavior. We used three team member items and three organizational member proactivity items (Griffin et al., 2007) (α_{study2}=.95) (e.g., “Suggested ways to make your work unit more effective”; “Come up with ways of increasing efficiency within the organization”). Reporting was on a five-point frequency scale, of 1=never, 2=rarely, 3=sometimes, 4=often, and 5=many times.

Resistance to change behavior. To measure negative change behavior, we modified five items from the resistance to change behavior scale (Oreg, 2006) for an ongoing change context (α_{study2}=.89) (e.g., “Looked for ways to prevent ongoing changes from taking place”; “Protested against the ongoing changes”;” Spoken negatively about the ongoing changes to others”). Participants indicated their behaviors on a five-point frequency scale, from 1=never, 2=rarely, 3=sometimes, 4=often, and 5=many times.

We used the same analytical approach as in Study 1 to identify latent profiles and explore covariates.

5.7 Study 2-Results and Discussion

Correlations for the Study 2 variables are above the diagonal in Table 5-2. The reliabilities of each instrument are included on the diagonal. (Please note that for readability reasons, Study 1 and Study 2 tables are included after the Results and Discussion section of Study 2). All of the correlations were significant at $p<.01$ with five exceptions all related to the proactive work behavior (PWB-TO), which was not correlated with unpleasant affect variables (LAUA $r=.10$, $p=.018$; HAUA $r=.05$ and $p=.181$), change fatigue ($r=-.10$, $p=.019$), resistance to change behavior ($r=-.04$, $p=.415$), and intention to quit ($r=-.07$, $p=.105$). This was not unexpected, as we added PWB-TO explicitly to try and extract only the challenger profile that we predict will have high levels of proactivity as a distinguishing feature.

As in Study 1, a CFA was run to test the model fit for the profile indicators. The fit statistics were good for the model with the amendments and the two new variables. The criteria for an acceptable model were achieved with RSMEA of 0.05 (90% confidence interval .04, .05), CFI of .94, TLI of .94, SRMR of .05. Factor scores saved from the first-order CFA were retained in standardized units (M=0, SD=1) as profile indicators.

Table 5-3 provides the fit statistics for the various latent profile models tested. Initially, we ran the LPA with a full sample, including those participants who indicated no change (N=710). We chose a six-profile solution based on the LL, AIC, BIC, C-AIC, and SSA-BIC, all showing a low score compared to prior models. In the six-profile solution, the aLMR and BLRT were not significant, and the entropy remained high; additionally, the smallest profile contained 5% of the sample, the minimum recommended (Spurk et al.,

2020). We qualitatively judged the five profiles identified in Study 1 to be present along with an additional profile (see

). This profile did not fit the characteristics of the hypothesized challenger profile. On closer inspection of the class probabilities, we found that an estimated 40% of the participants in this profile group had scored 1-none to the amount of change. We suspected this could be a profile explicitly related to those experiencing little to no change. To test this proposition, we repeated the LPA, removing the data from participants indicating no change (1-none) on the amount of change questions (n=625). This analysis produced the expected five-profile solution (see fit statistics in Table 5-3) and replicated the five profiles from Study 1 (**Figure *5-7***). Thus, we retained the six-profile structure and continued with the entire sample (see**Figure *5-6***) to represent the working population overall in their responses to continuous change. The sample mean estimates are contained in Table 5-4.

Figure 5-6

Latent Profiles for Change Orientations in Study 2 with the Entire Sample (n=710)

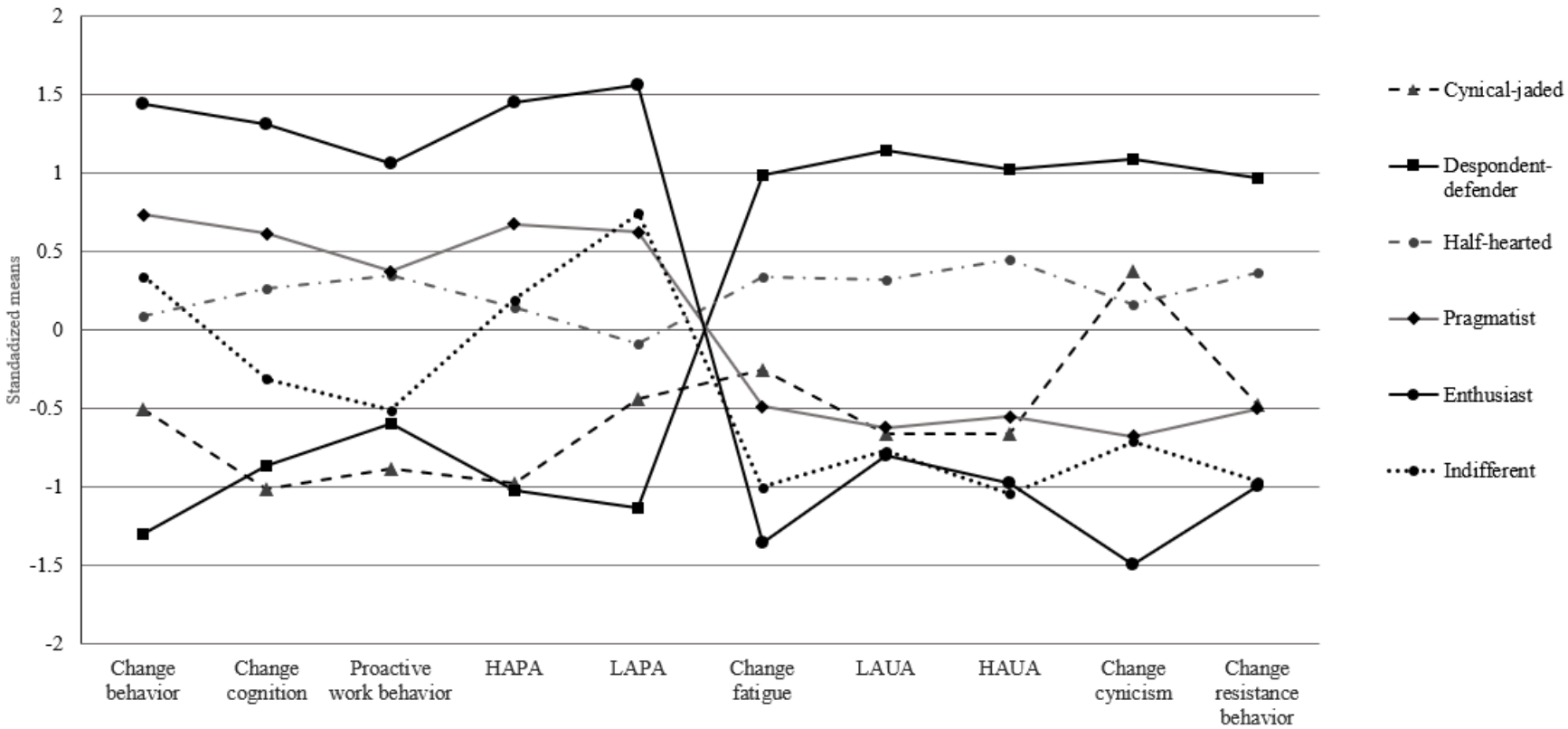
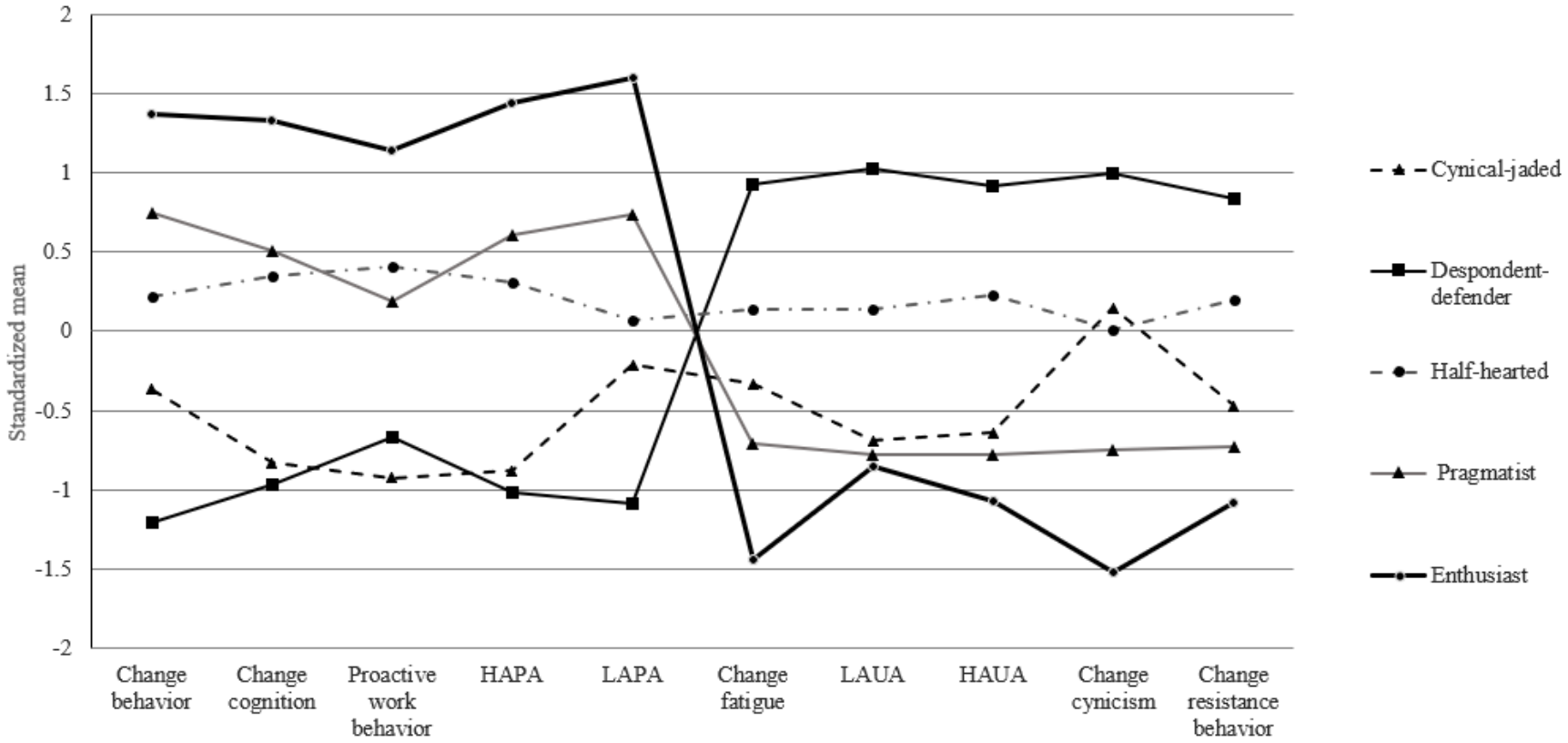


Figure 5-7

Latent Profiles for Change Orientations in Study 2 with Only Participants with Moderate Amounts of Change (n=625)



The result supports Hypothesis 1 that the despondent-defender will have the highest levels of change negativity and lowest levels of change positivity. Specifically, with the addition of the resistance, the change behavior measure provides more robust evidence of this profile matching the hypothesized defender type from Chapter 4. Hypothesis 2, however, is not supported as there is no evidence of a challenger type profile in these results. The newly-added PWB-TO variable reflects three main reporting points: high levels of proactivity for enthusiasts, moderate for the pragmatists and half-hearted, and low proactivity for the despondent-defenders, cynical-jaded, and the indifferent (see Figure 5-6).

Hypothesis 3 proposed that the five employee change orientation profiles from Study 1 would be replicated in Study 2, which was supported. The enthusiast remains a unified profile with the greatest change positive scores and the lowest change negative scores. The pragmatist profile reflects an ambivalent change orientation with moderate to high change positivity responses combined with a slightly weak negative change response. The other ambivalent change orientation, the half-hearted profile, shows moderate change negativity and moderate change positivity. The cynical-jaded profile is unified, with very low change positivity and moderate change negativity with high change cynicism and change resistance behavior. Finally, the despondent-defender's fifth profile represents a unified profile with very low change positivity and very high change negativity.

Next, examining relations of these profiles with the two sets of covariates, antecedents, and distal outcomes provides further evidence as to whether the profiles are distinct. The antecedents of hope, helplessness, quantitative job insecurity, and qualitative job insecurity are shown in Table 5-7 and Figure 5-8. Overall, the patterns were very

similar to those observed in Study 1. State hope maintained the same patterns as in Study 1, with the highest state hope predicting inclusion in the enthusiast profile, whereas low hope predicted inclusion in the change negative profiles of the despondent-defender and the half-hearted. Additionally, the indifferent profile had similarly high levels of hope to the enthusiast. Levels of hope are an essential predictor of profile membership concerning continuous change orientation. Helplessness followed a similar pattern to Study1, with the highest levels of helplessness being significantly more likely to predict despondent-defender versus enthusiast or pragmatist. The indifferent profile had moderate to low helplessness, like that predicting inclusion in the half-hearted profile. Helplessness also continues to be a helpful predictor of profile membership. The last antecedent examined is job insecurity, quantitative and qualitative. Job insecurity will likely have increased for all participants one year into the COVID-19 pandemic. However, despite this disruption, the overall pattern is like that in Study 1, with a profile high in change negativity—despondent-defender and cynical jaded having the highest job insecurity and the change positivity dominant enthusiast has very low job insecurity. This was replicated in Study 2 as the despondent-defender still has the highest levels of job insecurity, and overall it appears qualitative job insecurity has increased. Also, in Study 2, the half-hearted have significantly higher quantitative job insecurity than the cynical-jaded, representing a change from Study 1. The cynical-jaded are still more concerned about losing aspects of their job (qualitative) than the job itself (quantitative), with higher qualitative job insecurity than the half-hearted. The enthusiasts have the lowest overall job insecurity, significantly lower than the pragmatists and indifferent, with moderately low job insecurity on both factors. The indifferent profile had similar levels of job insecurity to the pragmatist. Overall, these

findings support Hypothesis 4, although we are cautious regarding the job insecurity findings due to the effect of the COVID-19 pandemic.

The distal outcome analysis is shown in Figure 5-9 and Table 5-8, covering OCBO, job satisfaction, job exhaustion, and intent to quit. For OCBO, there were no significant differences in citizenship between the two change negativity profiles of cynical-jaded and despondent-defender. This differed from Study 1, where cynical-jaded reported significantly lower OCBO. The enthusiast profile had the highest OCBO. The indifferent profile had significantly lower OCBO than the enthusiast profile but was not significantly different from the other four profiles (p<01). For job satisfaction, while graphically similar to Study 1, the differences between each profile were not statistically significant (p<01), not supporting Hypothesis 5. As hypothesized, job exhaustion showed more differentiation across profiles, with a significant difference between the despondent-defender and the enthusiast. The indifferent profile had similarly low levels of job exhaustion to the enthusiast. The intention to quit was highest in the despondent-defender and half-hearted; there were only two significant differences (p<.01) between the cynical-jaded and despondent-defender. Returning to Hypothesis 5, the lack of significant differences identified for Job Satisfaction and Intention to quit leads us to stop short of saying this hypothesis has been confirmed. The results do support the hypothesis related to OCBO and job exhaustion and support the hypothesis that the change negativity could be predictive of job exhaustion and low OCBO.

Figure 5-8

Study 2 Antecedents by Change Orientation Latent Profile

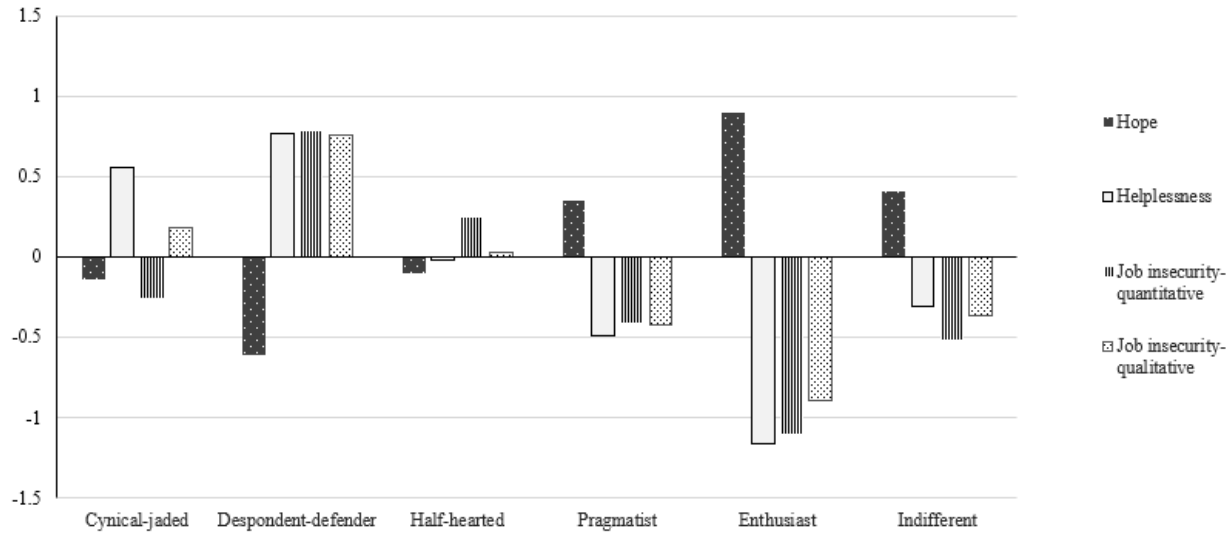


Figure 5-9

Study 2 DistalOutcomes by Change Orientation Latent Profile

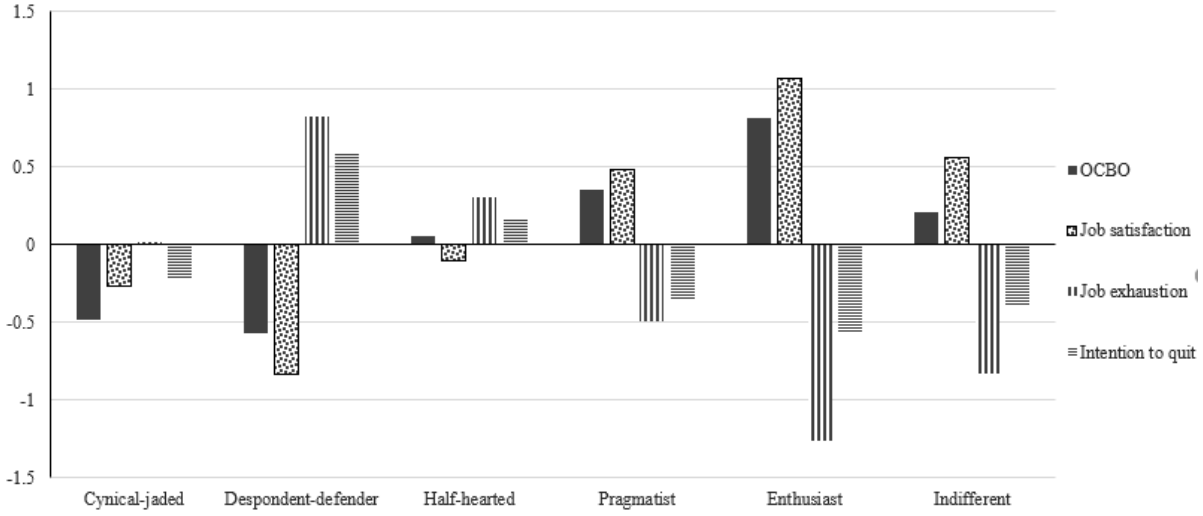


Table 5-2

Correlations and Reliabilities for Studies 1 and 2

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Change behavior	**.86/.92**	0.67	0.63	0.48	.24	.16	-.48	-.22	.69	-.18	.42	-.54	-.22	-.48	.61	.41	-.22	-.15
2. Change cognition	.87	**.94/.96**	.69	.63	.53	.45	-.71	-.51	.41	-.52	.50	-.54	-.41	-.64	.48	.50	-.41	-.27
3..HAPA	.67	.66	**.95/.95**	.74	.30	.31	-.49	-.35	.54	-.26	.46	-.51	-.26	-.60	.60	.51	-.41	-.20
4. LAPA	.42	.48	.55	**.95/.93**	.46	.57	-.50	-.52	.36	-.41	.48	-.45	-.42	-.58	.45	.51	-.52	-.31
5. LAUA^{r}	.45	.55	.36	.42	**.93/.91**	.73	-.58	-.54	***.10***	-.62	0.51	-.40	-.51	-.52	.24	.49	-.54	-.43
6. HAUA^{r}	.36	.47	.32	.61	.76	**.93/.94**	-.44	-.57	***.05***	-.57	.41	-.28	-.55	-.43	.20	.40	-.54	-.33
7. Ch-cynicism	-.60	-.70	-.50	-.41	-.53	-.46	**.92/.91**	.62	-.31	.61	-.47	.59	.45	.62	-.46	-.55	.50	.37
8. Ch-fatigue^{r}	-.48	-.58	-.42	-.51	-.56	-.58	.67	**.93/.94**	***-.10***	.61	-.31	.40	.50	.39	-.22	-.32	.47	.30
9. PWB_TO									**--/.95**	***-.04***	.37	-.54	-.13	-.39	.59	.36	-.18	***-.07***
10. RTC-BE										**--/.89**	-.36	.34	.44	.35	-.18	-.31	.46	.34
11. Hope	.58	.56	.56	.44	.49	.41	-.60	-.47			**.84/.84**	-.53	-.44	-.68	.58	.72	-.53	-.38
12. Helplessness	-.55	-.50	-.48	-.30	-.32	-.30	.60	.42			-.58	**.93/.92**	.44	.59	-.60	-.55	.44	.33
13. JIS-Quant	-.47	-.55	-.43	-.42	-.55	-.52	.51	.51			-.57	.46	**.85/.84**	.57	-.30	-.46	.45	.55
14. JIS-Qual	-.63	-.65	-.56	-.40	-.49	-.41	.69	.48			-.73	.58	.60	**.84/.80**	-.64	-.76	.56	.53
15. OCBO	.62	.46	.54	.21	.13	***.09***	-.41	-.24			-.55	.55	.30	.55	**.90/.90**	.70	-.42	-.33
16. Job satisfaction.	.58	.56	.58	.38	.50	.38	-.60	-.44			-.74	.50	.46	.74	-.65	**.90/.88**	-.72	-.58
17. Job exhaustion	-.37	-.43	-.42	-.43	-.52	-.50	.54	.50			-.53	.40	-.41	-.54	.31	-.71	**.90/.94**	.48
18. Intent to quit	-.33	-.33	-.33	-.22	-.34	-.27	.41	.30			.42	-.31	-.46	-.58	-.38	-.60	.47	**.89/.93**

Note: Variables are factor scores from preliminary models with M=0 and SD=1. The bottom group of correlations is Study 1, the top group is Study 2. The composite reliability coefficients are reported in bold on the diagonal. Blank cells in the lower section are due to the addition of two further indicator variables in Study 2 . Sample1 *n*=847 Sample 2 *n*=710; HAPA=High Activation Pleasant Affect, LAPA=Low activation pleasant affect; HAUA-High activation unpleasant affect, LAUA= low activation unpleasant affect; JIS-Quant.= Job insecurity-Quantitative; JIS-Qual=Job insecurity qualitative; OCBO=Organization citizenship behavior-organization directed; Job sat=job satisfaction; Int quit-intention to quit; PWB_TO=Proactive Work Behavior-Team and organization; RTC_BE=resistance to change behavior. All correlations are significant, at $p<.01$, except those in bold italics.

Table 5-3

Study 1 and Study 2 Latent Profile Enumeration Fit Statistics

# of profiles	LL	FP	AIC	BIC	C-AIC	SSA_BIC	aLMR (*p*)	BLRT (*p*)	Smallest class	Entropy
Study 1							--	--		--
2	-7494.74	33	15055.49	15211.96	15244.96	15107.17	<.001	--	49%	0.92
3	-6937.84	50	13975.68	14212.77	14262.77	14053.98	<.001	--	28%	0.864
4	-6604.05	67	13342.09	13659.78	13726.78	13447.01	<.001	<.001	12%	0.896
5	-6322.92	84	12813.83	13212.14	13296.14	12945.38	0.014	<.001	10%	0.931
6	-6063.02	101	12328.03	12588.69	12907.94	12486.20	0.56	<.001	9%	0.919
7	-5866.72	118	11969.44	12528.96	12646.96	12154.23	0.15	--	4%	0.929
Study2										
2	-8329.39	41	16740.78	16927.96	16968.96	16797.77	<.001	--	42%	0.923
3	-7544.05	62	15212.10	15495.14	15557.14	15298.28	<.001	--	28%	0.922
4	-7160.41	83	14486.82	14865.74	14948.74	14865.74	0.0052	<.001	16%	0.932
5	-6824.48	104	13856.96	14331.75	14435.75	14001.52	0.0039	<.001	11%	0.944
6	-6604.88	125	13459.76	14030.42	14155.42	13633.51	0.0092	<.001	5%	0.951
7	-6396.85	146	13085.69	13752.22	13898.22	13288.63	0.1064	--	5%	0.947
Study2-change only										
2	-7283.17	41	14648.33	14830.28	14871.28	14700.108	<.001	--	45%	0.92
3	-6620.38	62	13364.75	13639.89	13701.89	13443.049	<.001	--	28%	0.924
4	-6335.65	83	12837.3	13205.64	13288.64	12942.121	0.0019	<.001	13%	0.93
5	-6093.14	104	12394.27	12855.80	12959.8	12525.611	0.0029	<.001	5%	0.951
6	-5871.89	125	11993.77	12548.49	12673.49	12151.632	0.0034	<.001	5%	0.948

Note: Study 1 *n*=847, Study 2 n=710 Study 2-change only is the study 2 a sample with these results from participants perceive little to no change removed n=625; LL = log-likelihood; FP =free parameters; AIC= Akaike information criteria; BIC = Bayesian information criteria; C-AIC = consistent Akaike information criteria; SSA-BIC = sample-size adjusted BIC; LMR = Lo, Mendell, and Rubin (2001) test; BLRT =bootstrapped log-likelihood ratio test.

Table 5-4

Study 1and 2 Descriptive Information, Sample Mean Estimates and Standard Error by Latent Profile

Profile	% of sample	Positive behavior	Positive cognition	Proactive work behavior	HAPA	LAPA	LAUA	HAUA	Change cynicism	Change fatigue	Resistance to change behavior
Study 1											
1. Cynical-jaded	10%	-1.07(.10)	-0.98(.11)	--	-1.20(.01)	-0.67(.11)	-0.26(.08)	-0.26(.09)	0.67(.13)	0.28(.14)	--
2. Despondent-defender	23%	-0.75(.08)	-0.92(.08)	--	-0.64(.05)	-0.80(.06)	1.45(.13)	1.33(.12)	0.90(.07)	1.04(.06)	--
3. Half-hearted	32%	0.20(.06)	0.18(.06)	--	0.2(.06)	0.05(.06)	-0.30(.04)	-0.07(.05)	-0.01(.06)	-0.01(.06)	--
4. Pragmatists	22%	0.28(.05)	0.40(.04)	--	0.23(.07)	0.57(.08)	-0.62(.00)	-0.75(.05)	-0.54(.05)	-0.61(.05)	--
5. Enthusiasts	12%	1.30(.07)	1.38(.05)	--	1.24(.09)	0.95(.09)	-0.67(.01)	-0.81(.04)	-1.28(.06)	-1.12(.05)	--
Study 2_{full}											
1. Indifferent	9%	0.342	-0.311	-0.508	0.192	0.745	-0.77	-1.041	-0.707	-1.002	-0.965
2. Cynical-jaded	10%	-0.502	-1.01	-0.885	-0.978	-0.438	-0.658	-0.656	0.373	-0.256	-0.475
3. Despondent-defender	21%	-1.295	-0.863	-0.595	-1.018	-1.13	1.144	1.028	1.087	0.985	0.968
4. Pragmatist	26%	0.734	0.617	0.373	0.673	0.624	-0.62	-0.55	-0.675	-0.486	-0.502
5. Half-hearted	29%	0.085	0.267	0.346	0.149	-0.09	0.32	0.447	0.162	0.344	0.369
6. Enthusiast	5%	1.44	1.315	1.065	1.453	1.557	-0.795	-0.973	-1.492	-1.357	-0.995
Study 2_{change}											
1. Cynical-jaded	9%	-0.831	-0.368	-0.924	-0.878	-0.211	-0.689	-0.640	0.147	-0.333	-0.471
3. Despondent-defender	24%	-0.969	-1.210	-0.665	-1.018	-1.093	1.023	0.917	0.996	0.923	0.840
2. Pragmatist	25%	0.504	0.744	0.193	0.606	0.742	-0.774	-0.781	-0.751	-0.705	-0.731
4. Half-hearted	37%	0.349	0.221	0.406	0.310	0.072	0.135	0.227	0.006	0.137	0.201
6. Enthusiast	5%	1.331	1.365	1.142	1.440	1.597	-0.856	-1.076	-1.524	-1.438	-1.081

Note: Study 1 *n*=847 Study 2_{full} n=710; Study 2_{change} n=625; Standardized sample mean (standard error). HAPA=high activation, pleasant affect; LAPA= low activation, pleasant affect; LAUA=Low activation unpleasant affect; HAUA=High activation unpleasant affect; Values represent the mean factor scores for each indicator variable in each latent profile.

Table 5-5

Study1 Antecedents (R3STEP) Results

	Cynic vs Despondent-defender		Cynics Vs Half-hearted		Cynic vs Pragmatist		Cynic vs Enthusiast		Despondent-defender vs Half-hearted	
Antecedents	Coeff.(SE)	OR	Coeff.(SE)	OR	Coeff.(SE)	OR	Coeff.(SE)	OR	Coeff.(SE)	OR
Hope	0.40 (0.34)	1.49	3.71 (0.60)**	40.87	0.62 (0.35)	1.85	0.54 (0.35)	1.72	4.11 (0.57)**	60.91
Helplessness	-0.43 (0.21)*	1.49	-0.55 (0.27)*	1.73	-0.48 (0.20)*	1.61	-0.57 (0.19)**	1.77	-0.119 (0.251)	1.127
Job insecurity-qt	1.01 (0.20)*	2.75	-0.91 (0.48)	2.48	-0.61 (0.22)**	1.84	0.05 (0.21)**	1.05	-1.92 (0.47)**	6.83
Job insecurity-ql	-0.29 (0.27)	1.34	-1.81 (0.56)**	6.13	-1.17 (0.30)**	3.23	-0.83 (0.26)**	2.29	-1.52 (0.56)**	4.58

	Despondent-defender vs Pragmatist		Despondent-defender Vs Enthusiast		Half-hearted vs Pragmatist		Half-hearted vs Enthusiast		Pragmatist vs Enthusiast	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
Hope	1.02 (0.36)**	2.76	0.94 (0.30)**	2.56	-3.09 (0.50)**	22.05	-3.17 (0.51)**	23.77	-0.08 (0.29)	1.08
Helplessness	-0.05 (0.17)	1.05	-0.15 (0.16)	1.16	0.07 (0.21)	1.08	-0.03 (0.21)	1.03	-0.10 (0.12)	1.10
Job insecurity-qt	-1.62 (0.20)**	5.07	-0.97 (0.17)**	2.62	0.30 (0.44)	1.35	0.96 (0.44)*	2.60	0.66** (0.16)	1.93
Job insecurity-ql	-0.88 (0.29)**	2.41	-0.54 (0.25)*	1.71	0.64 (0.51)	1.90	0.98 (0.52)	2.67	0.34 (0.24)	1.41

Note: OR = odds ratio. All values are estimates from the R3STEP logistic regression analyses. Positive values indicate that higher values on the antecedent make a person more likely to be in the first latent profile out of the two being compared. Whereas negative values indicate that higher values on the antecedent make a person more likely to be in the second latent profile. The absolute value of the logistic

regression coefficients was used to calculate the odds ratio. Positive and negative values are interchangeable in this analysis and are only used to reflect the comparison's direction. * $p < .05$, ** $p < .01$. (adapted from Gabriel et al., 2015)

Table 5-6

Study 1 Distal Outcomes (BCH) Results

	Despondent-defender on Cynical-jaded		Half-hearted on Cynical-jaded		Pragmatist on Cynical-jaded		Enthusiast on Cynical-jaded		Half-hearted on Despondent-defender	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
OCBO	1.992 (0.374)**	7.39	1.452 (0.317)**	4.274	1.276 (0.315)**	3.582	2.391 (0.481)**	10.921	-0.539 (0.271)	1.715
Job Satisfaction	-0.561 (0.421)	1.752	0.526 (0.395)	1.692	0.565 (0.391)	1.759	2.864 (0.761)**	17.524	1.087 (0.340)**	2.964
Job exhaustion	0.951 (0.303)**	2.59	0.251 (0.289)	1.285	-0.380 (0.289)	1.462	-0.644 (0.419)	1.904	-0.700 (0.236)**	2.014
Intention to quit	0.001 (0.241)	1.00	-0.113 (0.228)	1.119	-0.607 (0.257)*	1.835	0.290 (0.393)	1.336	-0.114 (0.189)	1.120

	Pragmatist on Despondent-defender		Enthusiast on Despondent-defender		Pragmatist on Half-hearted		Half-hearted on Enthusiast		Pragmatist on Enthusiast	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
OCBO	-0.716 (0.297)*	2.046	0.399 (0.442)	1.490	0.176 (0.209)	1.193	-0.938 (0.377)*	2.555	-1.115 (0.376)**	3.049
Job satisfaction	1.126 (0.370)**	3.082	3.424 (0.737)**	30.703	-0.039 (0.310)	1.040	-2.338 (0.667)**	10.357	-2.299 (0.662)**	9.961
Job exhaustion	-1.331 (0.263)**	3.786	-1.595 (0.381)**	4.928	0.631 (0.214)**	1.880	0.895 (0.335)**	2.447	0.264 (0.331)	1.302
Intention to quit	-0.608 (0.238)*	1.837	0.289 (0.375)	1.335	0.494 (0.214)*	1.640	-0.403 (0.338)	1.496	-0.897 (0.364)*	2.452

Note: *Note*: OR = odds ratio. All values are estimates from the R3STEP logistic regression analyses. Positive values indicate that higher values on the antecedent make a person more likely to be in the first latent profile out of the two being compared. Whereas negative values indicate that higher values on the antecedent make a person more likely to be in the second latent profile. The absolute value of the

logistic regression coefficients was used to calculate the odds ratio. Positive and negative values are interchangeable in this analysis and are only used to reflect the comparison's direction. * $p < .05$, ** $p < .01$. (approach adapted from Gabriel et al. (2015)).

Table 5-7

Study 2 Antecedents (R3STEP) Results

	Indifferent on Cynical-jaded		Indifferent on Despondent-defender		Indifferent on Pragmatist		Indifferent on Half-hearted		Indifferent on Enthusiast	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
Hope	0.819		1.153		0.819		1.421		-1.180	
	(0.425)	2.268	(0.399)**	3.169	(0.386)*	2.268	(0.375)**	4.142	(0.788)	3.255
Helplessness	-1.077		-0.544		0.482		0.233		1.142	
	(0.285)**	2.937	(0.251)*	1.723	(0.209)*	1.619	(0.211)	1.263	(0.485)*	3.133
Job	0.415		-0.867		-0.456		- 0.914		1.136	
insecurity-qt	(0.286)	1.514	(0.275)**	2.380	(0.239)	1.578	(0.235)	2.495	(0.663)	3.115
Job	-0.809		-1.864		0.888		0.244		0.579	
insecurity-ql	(0.459)	2.246	(0.449)**	6.450	(0.418)*	2.430	(0.392)	1.276	(0.870)	1.784

	Cynical-jaded on Despondent-defender		Cynical-jaded on Pragmatist		Cynical-jaded on Half-hearted		Cynical-jaded on Enthusiast		Despondent-defender on Pragmatist	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
Hope	0.334		0.000		0.602		-1.999		-0.334	
	(0.326)	1.397	(0.358)	1.000	(0.336)	1.826	(0.782)*	7.383	(0.311)	1.397
Helplessness	0.533		1.559		1.311		2.219		1.026	
	(0.278)	1.705	(0.281)**	4.755	(0.271)**	3.709	(0.525)*	9.202	(0.234)**	2.789
Job	-1.282		-0.871		-1.329		0.721		0.411	
insecurity-qt	(0.226)**	3.604	(0.261)	2.389	(0.238)**	3.778	(0.672)	2.057	(0.234)	1.509
Job	-1.055		1.697		1.053		1.388		2.752	
insecurity-ql	(0.435)*	2.871	(0.447)**	5.459	(0.423)*	2.866	(0.888)	4.006	(0.414)**	15.675

	Despondent-defender on Half-hearted		Despondent-defender on Enthusiast		Pragmatist on Half-hearted		Pragmatist on Enthusiast		Half-hearted on Enthusiast	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
Hope	0.268		-2.334		0.602		-1.999		-2.601	
	(0.263)	1.307	(0.768)**	10.314	(0.260)*	1.826	(0.731)**	7.383	(0.748)**	13.481
Helplessness	0.777		1.686		-0.248		0.660		0.909	
	(0.209)**	2.176	(0.501)**	5.398	(0.179)	1.282	(0.463)	1.935	(0.477)	2.481
Job	-0.047		2.004		-0.458		1.592		2.051	
insecurity-qt	(0.207)	1.048	(0.664)**	7.416	(0.174)**	1.581	(0.637)*	4.915	(0.643)**	7.772
Job	2.108		2.443		-0.644		-0.309		0.335	
insecurity-ql	(0.377)**	8.230	(0.878)**	11.504	(0.330)	1.905	(0.813)	1.363	(0.835)	1.398

Note: OR = odds ratio. All values are estimates from the R3STEP logistic regression analyses. Positive values indicate that higher values on the antecedent make a person more likely to be in the first latent profile out of the two being compared. Whereas negative values indicate that higher values on the antecedent make a person more likely to be in the second latent profile. The absolute value of the logistic regression coefficients was used to calculate the odds ratio. Positive and negative values are interchangeable in this analysis and are only used to reflect the comparison's direction. * $p < .05$, ** $p < .01$. (adapted from Gabriel et al. (2015))

Table 5-8

Study 2 Outcomes(BCH) Results

	Indifferent on Cynical-jaded		Indifferent on Despondent-defender		Indifferent on Pragmatist		Indifferent on Half-hearted		Indifferent on Enthusiast	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
OCBO	0.974		0.708		-0.839		-0.584		-1.440	
	(0.413)*	2.650	(0.410)	2.031	(0.359)*	2.314	(0.372)	1.793	(0.548)**	4.221
Job satisfaction	0.988		0.838		0.396		0.662		-0.444	
	(0.486)*	2.685	(0.485)	2.312	(0.464)	1.486	(0.468)	1.939	(0.839)	1.560
Job exhaustion	-0.855		-1.743		-0.616		-1.477		0.497	
	(0.322)**	2.352	(0.322)**	5.713	(0.282)*	1.852	(0.290)	4.380	(0.517)	1.644
Intention to quit	0.686		-0.212		-0.616		-0.120		-0.352	
	(0.369)	1.985	(0.327)	2.821	(0.282)	1.254	(0.317)	1.128	(0.491)	1.421

	Cynical-jaded on Despondent-defender		Cynical-jaded on Pragmatist		Cynical-jaded on 5 Half hearted		Cynical-jaded on Enthusiast		Despondent-defender on Pragmatist	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
OCBO	-0.266		-1.813		-1.558		-2.414		-1.548	
	(0.340)	1.305	(0.341)**	6.132	(0.329)**	4.750	(0.551)**	11.183	(0.331)**	4.700
Job satisfaction	-0.149		-0.591		-0.326		-1.432		-.442	
	(0.341)	1.161	(0.373)	1.806	(0.349)	1.385	(0.835)	4.187	(0.347)	1.556
Job exhaustion	-0.887		0.239		-0.622		1.353		1.126	
	(0.243)**	2.429	(0.248)	1.270	(0.232)**	1.862	(0.511)**	3.867	(0.240)**	3.084
Intention to quit	-0.898		-0.459		-0.806		-1.037		0.439	
	(0.248)**	2.454	(0.281)	1.583	(0.251)**	2.238	(0.480)*	2.821	(0.201)*	1.551

	Despondent-defender on Half-hearted		Despondent-defender on Enthusiast		Pragmatist on Half-hearted		Pragmatist on Enthusiast		Half-hearted on Enthusiast	
Antecedents	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR	Coef.(SE)	OR
OCBO	-1.292		-2.148		0.255		-0.601		-0.856	
	(0.293)**	3.640	(0.549)**	8.572	(0.275)	1.291	(0.488)	1.824	(0.511)	2.355
Job	-0.176		-1.283		0.266		-0.841		-1.106	
satisfaction	(0.298)	1.193	(0.831)	3.607	(0.326)	1.304	(0.786)	2.318	(0.814)	3.024
Job	0.266		2.240		-0.861		1.114		1.974	
exhaustion	(0.205)	1.304	(0.513)**	9.393	(0.194)**	2.364	(0.476)*	3.046	(0.493)**	7.201
Intention to	0.092		-0.140		-0.347		0.578		-0.231	
quit	(0.146)	1.096	(0.441)	1.150	(0.185)	1.414	(0.435)	1.783	(0.430)	1.260

Note: OR = odds ratio. All values are estimates from the BCH logistic regression analyses. Positive values indicate that higher values on the antecedent make a person more likely to be in the first latent profile out of the two being compared; negative values indicate that higher values on the antecedent make a person more likely to be in the second latent profile. We took the absolute value of the logistic regression coefficients to calculate the odds ratio; positive and negative values are interchangeable in this analysis and are only used to reflect the comparison's direction. * $p < .05$, ** $p < .01$. (adapted from Gabriel et al. (2015))

5.8 General Discussion

Employee orientations to continuous change have been explored using LPA a person-centered approach. In this exploration, distinct profiles – or sub-populations of orientation toward continuous change – as we have predicted from the change literature have been identified. Overall, the results across two studies revealed six profiles that varied in level of activation from high to low, and in shape, including aspects of change positivity orientation and change negativity change orientation. In Table 5-9, we present an updated representation of the change profiles identified through these studies.

Table 5-9

Employee Change Orientations to Continuous Change - Study 1 and Study 2

		Shape		
	Activation	Change Positivity	Change Negativity	**Orientation by level**
Level	High	Enthusiast	Despondent-defender	*Enthusiast* *Despondent-defender*
	High-moderate	Pragmatist	Half-hearted	*Pragmatist* *Half-hearted*
	Low-moderate	Half-hearted Indifferent	Pragmatist Cynical-jaded	*Indifferent* *Cynical-jaded*
	Low	Despondent-defender Cynical-jaded	Enthusiast Indifferent	
	Orientation by shape	*Enthusiast* *Pragmatist* *Indifferent*	*Despondent-defender* *Half-hearted* *Cynical-jaded*	

The updated configurational framework (Table 5-9) represents a significant theoretical contribution from this paper as it reconciles with and extends the hypothesized typology identified in Chapter 4 concerning continuous change. The revised framework supports two united high activation orientations, the change enthusiast and the despondent-defender. Additionally, these findings support the existence of ambivalent orientations commonly alluded to in the individual-level change literature but have thus far been empirically underexplored. Based on these past propositions regarding ambivalent orientations, we anticipated these would emerge and found the half-hearted profile with moderate levels of change negativity and change positivity and similar levels of pleasant and unpleasant affect.

The mixed-orientation pattern was repeated in cognition and behavior; hence we are confident this represents the half-hearted orientation. The pragmatist profile emerged with an overall positive orientation to change, indicative of getting on with change, perhaps as part of the role. The pragmatist had similar levels of change positivity to the half-hearted but much lower levels of change negativity, more like the enthusiast. Two lower activation profiles emerged, advancing our understanding of low activation responses to change. Of these, the cynical-jaded group was closest to the predicted jaded group derived in Chapter 4 from the literature, although unexpectedly, this profile is characterized by high change cynicism. This cynical-jaded group was also the least likely to engage in any proactive behavior (PWB-TO) or citizenship behavior (OCBO). Notably, this profile also was characterized by low scores on both positive and negative core-affect about change. This result brings to mind the numb response identified in previous research (McMillan & Perron, 2020a), where employees protect themselves by not having strong feelings about change or by not engaging (Stensaker et al., 2002). The cynical-jaded also had similar job

exhaustion level and change fatigue to the half-hearted, together with and change cynicism, this may indicate some aspects of job burnout (Maslach et al., 2001). This profile contrasts with the emergent indifferent profile, which we found to be dominated by calm feelings and positive thoughts about change. The indifferent profile is related to low or no perceived change. The responses of the indifferent profile also show an overall positive orientation to change, which challenges the stereotype of employees being naturally resistant to change and supports the argument people resist aspects of change not change itself (Dent & Goldberg, 1999).

The results of our covariate analyses also highlight change orientation antecedents and distal outcomes vary as a function of profile membership. For antecedents, hope and helplessness provided the best differentiation of change positive versus negative change profiles. This supports prior findings that hope is positively related to an adaptive response to change (Strauss et al., 2015). This is consistent with the Snyder et al. (1996) definition of hope as a combination of goal-directed energy and the planning to meet goals. Conversely, helplessness measures the cognitive inferences from a lack of power to take control over an aspect of work (Ashforth, 1989, 1990). Helplessness is also a factor differentiating the profiles of change orientations, particularly with the distinction between shape—change positivity versus negativity. Job insecurity proved critical in predicting profiles of those most affected by the change, namely the despondent defender from the change positivity dominated enthusiast, pragmatist, and indifferent. This supports the findings by scholars that job insecurity has a significant impact on how people react to change (López Bohle et al., 2018; Thomson & Michel, 2018).

High levels of change negativity were related to reduced wellbeing for employees with higher levels of job exhaustion and intention to quit, and low job satisfaction. The fact

that the despondent-defender group made up almost one-quarter of the participants in both studies (Study 1:23%, Study 2:24%) should be of concern to employers, and it is interesting to note that this proportion was not increased in Study 2 even though the pandemic had resulted in many ongoing changes. In addition to this, the half-hearted profile made up around a third of participants (Study 1:32%, Study 2:37%). Together indicating that well over half the participants (Study 1:55%, Study 2:61%) had a negative change orientation. Conversely, the groups high in change positivity had much better indicators of wellbeing with very low job exhaustion, low intention to quit, and high job satisfaction. Together these results indicate that change orientations are linked to employee wellbeing.

Another theoretical contribution made by this study is that we have demonstrated how the tridimensional nature of employee reactions to change (Piderit, 2000) can be operationalized to capture the nuanced range of reactions that employees can have if cognition, affect, and behavior toward change are considered simultaneously. This tridimensional approach has recurred throughout the change literature. However, it has faltered due to the restrictions of applying a variable-centered approach to analysis and the methodological issue of only measuring either only change negativity or positivity factors rather than both simultaneously. We argue that positivity does not preclude the absence of negativity; this study demonstrates how this could be operationalized and used to identify change ambivalence states. Most responses were categorized as ambivalent (Study1: half-hearted = 32%, pragmatist=22%, cynical-jaded=10%; Study2: half-hearted=29%, pragmatist=26%, cynical-jaded=10%), demonstrating the importance of identifying and studying ambivalent change orientations as these are the most prevalent, particularly concerning continuous change.

Finally, we also provide evidence that employees experiencing little to no continuous change can hold an orientation toward change, high in LAPA and low in change negativity. We captured this in the indifferent profile. We suggest that future research on the impact of continuous change includes participants who perceive they are not currently experiencing any change, and despite their response indicating they are not concerned, as collecting data on these employees provides a good baseline for times of change and challenges the stereotype of employees as naturally resistant to change.

5.9 Practical Implications

Several practical recommendations emerge from the current research. Continuous change is a pervasive aspect of working life, and this research confirms that not all employees respond to this change in the same ways—however, predictable patterns of responding were identified. These findings have implications that managers and change agents will be interested in observing and understanding. While the enthusiast and pragmatist would appear optimal for successful change implementation, only around one-third of employees (Study 1: 34%, Study 2: 30%) fall into those profiles, with these employees benefiting from better wellbeing and performance. The more concerning groups for managers are likely those with high change negativity, the despondent-defender, cynical-jaded, and the half-hearted. Together, these high change negativity profiles dominated the studies, making up approximately two-thirds (Study 1: 65%, Study 2: 70%) of those experiencing change, respectively.

First, it is crucial to note that the evidence we have presented relates to continuous change at work. Employees are likely to react differently to specific change episodes. They might be optimistic about the new office but pessimistic about the restructure and computer

system. We propose managers try to identify employees with high levels of change negativity groups in their workforce and why they feel that way. Then consider what action is appropriate such as providing more support or addressing their concerns about a change.

More specifically, for each profile state, we will now provide some suggestions. The despondent-defender profile indicates employees who are likely miserable and anxious about the current change. Our analysis has demonstrated that this group is likely to have higher job insecurity contributing to this change orientation. Consequently, managers could consider assessing if job loss is a reality with this change, what is being communicated around job security, and if this needs to be managed to alleviate fears or prepare employees for future role changes. We would also recommend considering the communication used around the future of employees' roles, both in terms of continued employment (quantitative job insecurity) and maintenance of job characteristics (qualitative job insecurity). Addressing these issues and allaying some of these concerns may improve an employee's state-hope. We have demonstrated helplessness, the belief that the employee can do little to improve the work situation (Ashforth, 1990), a significant predictor of negative change orientation profiles. To alleviate helplessness, we recommend managers consider the control employees' have over various aspects of changes. Prior research has demonstrated that increasing employees' control over change improves positivity toward the change and reduces feelings of helplessness (e.g., Smollan, 2014).

The cynical-jaded group is likely to have low expectations of the success of continuous changes in the organization and are emotionally detached from change. Prior research has indicated that employees exposed to more organizational change are more likely to have high levels of cynicism, also finding that cynicism can be elevated by human resources taking a strategic change agent role (Brown et al., 2017). If change cynical and

jaded employee orientations are observed, we suggest looking at the organization's strategic approach to change. Is there a reasonable number of change initiatives? Is human resource expertise involved at a strategic level? Are there transparent efforts to communicate and demonstrate the plans and resources behind the change?.

The half-hearted group is unhappy about the continuous change even if they are implementing it half-heartedly. The concern with this group is that the tension created from an ambivalent state of carrying out a change makes them unhappy and is likely to take its toll on job exhaustion (Rothman & Melwani, 2017). Moreover, the half-hearteds' lower levels of OCBO could indicate they have reduced overall work performance, perhaps indicating a withdrawal. We recommend spending time understanding what it is about the change that leads to these unpleasant feelings for half-hearted employees, then taking action to address these concerns. Leadership flexibility is suggested as a potential pathway to assisting employees with these complex emotional states (Rothman et al., 2017), either by increasing employees' control over aspects of the change or providing further resources to support employees.

The two profiles high in change positivity, enthusiast and pragmatist, will also be essential to identify. The enthusiasts are likely to be obvious and may be called on to be champions of change. However, we also note caution against overburdening these employees. They have very low change fatigue and job exhaustion, but if they become fatigued by change, they may shift into one of the more moderate to low acting change orientations. The final orientation, also marked by higher change positivity, is the pragmatists, who demonstrate a positive, moderately active orientation in which employees get the work of change done. We recommend managers accept that employees in this state are not highly excited about change; this may reflect energy conservation, allowing them to

focus on their job. This type of ambivalence has also been associated with better decision-making (Rees et al., 2013). We also recommend considering the control employees have over changes that affect them and the time and space to make the decisions that will help them transition through changes.

Finally, we emphasize that the profiles we have discussed are states, and they are malleable. Thus, employees may change from one profile to another, with such shifts likely to be influenced by the employee and the type of change, the way change is delivered, colleagues' responses, leadership, and the broader work and societal context.

5.10 Limitations and Future Directions

These two studies, as with all research, have limitations. All our data are collected from the same source, US employees working at least 20 hours per week. Given that the same five profiles emerged across two samples, one pre-Covid-19 and the other one year into the Covid-19 pandemic, we think the results are likely to replicate for employees with similar demographics. However, we suggest further studies with different samples and collecting behavioral indicators from another source, such as a peer or manager. These would serve to test the validity and generalizability of this framework. I also see value in exploring the antecedents and outcomes using data from external sources to the employee, including friends or partners providing wellbeing ratings (Podsakoff et al., 2012). We would also recommend a broader approach to outcomes recorded from an external source, including supervisor ratings of employee job performance and change implementation. We did not assess one highly plausible antecedent of change profiles: the employee's personality traits; therefore, a future direction could be to understand how personality traits influence the development and maintenance of change orientations.

We also highlight several strengths across both studies. First, our samples in both studies cover a wide range of professions, levels of seniority, sectors, and types of change, which contributes to developing a generalizable theory of employee responses to change. Second, we conducted our studies pre- (Study 1) and mid-pandemic (Study 2). Collecting data at both time points provided a test of the durability of these change orientation profiles, demonstrating that these types of reactions continue to manifest even in times of extreme contextual change. However, we do not know that the predicted challenger profile did not emerge in our study even when we added a measure of proactive work behavior. We wonder if this could be due to the pandemic context and would recommend repeating this study in more stable times to confirm the challenger's absence or its absence in volatile work contexts.

We would recommend further research of employee change orientations. First, to expand the context, settings, and types of change employees experience to understand if similar or new employee change orientations emerge, perhaps looking at the continuous change in specific industries or professions. Second, our employee participants were all working in the US, and the next step is to assess these change orientations in different cultural contexts such as China and India to understand if similar change orientation profiles emerge. Third, supporting this change profiles with further qualitative research to build a richer picture of why an employee responds to change in that way and if it is a specific change or all change.

Finally, both studies were cross-sectional. This research design was appropriate given the exploratory nature of our research (Spector, 2019), allowing us to gain a snapshot of the employee’s current state to begin empirically exploring the types identified from past research in Chapter 4. Now that I have established six distinct profiles, five profiles that

replicated and the sixth indifferent profile characterizing employees experiencing minimal change, we encourage longitudinal research that examines the longevity of these change orientations and the paths of transition between orientations. We suggest latent transition analysis (Lanza, Bray, et al., 2013) provides an ideal approach to analyzing longitudinal data on these transitions and the role played by associated antecedents and outcomes.

5.11 Conclusion

The employee reactions to change literature has hinted at nuanced reactions to change that include unified and ambivalent states (Oreg et al., 2018; Piderit, 2000). However, there has been little empirical evidence of distinct employee profiles, particularly those with change ambivalence outside qualitative observations. In this study, we used a person-centered analytic lens (LPA) to understand how employees experience continuous change through distinct change orientations. We were able to demonstrate (a) that distinct change orientations consistently exist, (b) that antecedents can predict latent profile membership, and that (c) latent profile membership differentiates some wellbeing and performance outcomes. Broadly, we have demonstrated that change negativity is predicted by job insecurity and that it also differentiates reduced wellbeing outcomes. Additionally, we have identified that change positivity is predicted by high levels of hope and is differentiated by low levels of job exhaustion. As a further important finding, we have shown that even employees who perceive little to no change at work can orient toward change, which may be positive for many. Our results demonstrate the benefits of a person-centered approach to begin untangling the complexity of employee change orientations.

CHAPTER 6: General Discussion

6.1 Overview

This thesis has adopted an exploratory and phenomenon-driven approach (Schwarz & Stensaker, 2014). With this approach, I aimed to address criticisms that the change literature represents employees as passive actors (Oreg et al., 2013) and instead adopt an employee-centric perspective on change. Due to my early findings of change ubiquity (see Chapter 2), I chose continuous change as my change research paradigm (Weick & Quinn, 1999). I define continuous change as the culmination of all perceived ongoing, incremental, and emerging changes, both imposed and self-initiated as experienced and enacted by the employee. However, prior research also informs this thesis. By leveraging the individual-level change research through rigorous reviews and synthesis (see Chapter 3 and 4), I have developed a conceptual framework, typology, and configurational framework providing a theoretical basis for employee-centric change research. I support this conception with initial empirical evidence of employee orientations to continuous change.

The first three sections of this discussion chapter summarize my thesis's key findings and contributions to individual-level change theory and literature. To guide the reader, I provide a summary in **Table *6-1*** demonstrating the many unique findings and contributions to employee change reactions research made in this thesis. Beyond the contributions of the chapters thus far, in this discussion chapter, I also present an additional theoretical contribution, namely an employee-centric conceptual model of change orientation. This model positions the conceptual developments of this thesis within more recent theorizing in the individual-level change literature. Having presented the model itself, I then discuss the theoretical implications, focusing on the positioning of continuous

change and developing employee change orientations. The employee-centered findings of this thesis have significant implications and applications for the practice of employees, managers, change practitioners, and educators, which I outline in the implications for practice section. Moreover, the findings and contributions from this thesis have many implications for change research. In particular, I hope that this thesis will encourage further employee-centric change research. Hence, I discuss the implications for research from this thesis and recommendations for future research. This discussion chapter concludes with a discussion of the limitations and conclusions.

Table 6-1

Summary of Key Findings and Contributions by Chapter

Thesis Chapter	Key Findings	Contributions
Chapter 2 Change ubiquity: Employee perceptions of change prevalence from three countries	• Identified that 73% of employees are experiencing change across three countries • Established there was no significant difference in the amount of change experienced by US, Australian, or NZ employees • Identified that employees experiencing greater amounts of change used high activation negative affect language to describe these experiences	• Provided a baseline measure of the amount of change, supported with evidence of employee emotions • Demonstrated the ubiquity of change in contemporary workplaces based on three countries, the US, Australia, and New Zealand • Identified ubiquitous change for employees, thus indicating continuous change is a regular part of work • Clarified the prevalence of change, providing evidence for change researchers to guide the design of change research projects
Chapter 3 Employee reactions to change: A systematic meta-review and employee-centered conceptual model	• Identified 34 reviews between 2000 and February 2021 of employee change reactions in a systematic meta-review • Synthesized the antecedents, change reactions, and outcomes into a person-centered framework of change reactions	• Summarized current evidence on employees' reactions, responses to change, and associated antecedents and outcomes into a single conceptual person-centered model of employees reactions to change • Mapped the employee reactions to change literature key fields focused on organizational change, occupational health, job design, and adaptive performance

Thesis Chapter	Key Findings	Contributions
Chapter 4 Employee change orientations: development of a typology and configurational framework	• Identified six profiles of employee change orientations in the change literature: Defender, half-hearted, enthusiast, pragmatist, challenger, and jaded • Mapped the feelings, cognitions, and behaviors characteristic of each prototype orientation • Developed a novel configurational framework of employee change orientations • Defined two ambivalent prototypes, pragmatist and half-hearted, observed from the qualitative change literature	• Presented a novel integrative typology of six change orientations grounded in the findings of prior literature • Provides a conceptual tool for change researchers • Linking the multitude of change reactions described in individual-level change literature, encouraging simplification of the terminology used to describe employee change orientations • Created a configurational framework for the identified change orientations, which provides a much-needed structure for employee responses to change literature
Chapter 5 Latent profiles of employee change orientations to continuous change	• Identified six distinct continuous change orientation profiles: despondent-defender, half-hearted, enthusiast, pragmatist, cynical-jaded, and indifferent • Provided evidence of two ambivalent change orientations, the pragmatist and half-hearted, and evidence that these ambivalent orientations characterized just over half of the participants • Demonstrated the relationship between the antecedent covariates of state hope, helplessness, and job insecurity (qualitative and quantitative) are predictors of profile membership • Supported profile membership with distal outcomes OCBO, job satisfaction, job exhaustion, and intention to quit	• Established empirical evidence demonstrating distinct profiles of change orientation profiles predicted from prior literature are identifiable for continuous change • Introduce a novel profile related to employees experiencing little to no change • Presented evidence of the prevalence of ambivalent change orientations • Introduced a configurational framework of employee change orientations to continuous change based on empirical data • Demonstrated the utility of assessing employee change orientations using both positive and negative change measures relating to affect, cognition, and behavior

6.2 Key Findings

This section will summarize and briefly discuss the key findings from each of the four papers included in this thesis by chapter expanding on the summary of the key findings for each chapter provided in **Table *6-1***.

Chapter 2. The central research question for Chapter 2 was: How prevalent is change at work for employees? I posed this question because, despite common knowledge claims of the fast pace of change (Bersin, 2017) and unprecedented change (Michels & Murphy, 2021), there exists little evidence of how much change employees experience (see Chapter 2 for more detail). In addition, there was also theoretical and methodological reasoning behind clarifying change prevalence. If changes are rare –low prevalence—it indicates that studying change as discrete episodes would be best to ensure access to employees experiencing change. In contrast, if changes are commonplace, at medium to high prevalence, change is likely to be continuous for employees and indicates it could be researched as a regular part of work in most workplaces. In turn, this would support the theoretical reasoning of Weick and Quinn (1999) that the continuous change paradigm is most appropriate when considering an employee's perspective on change. Chapter 2 identified that 73% of employees were experiencing change across three countries, providing evidence of a high prevalence of change for employees in contemporary workplaces—change ubiquity. In Chapter 2, the use of high-activation, affect-rich (Warr et al., 2014) language was also identified in the written responses of many employees experiencing the most change. This finding suggested the usefulness of applying a circumplex model of affect (Warr et al., 2014) to analyze affect-rich reactions to change.

Chapter 3. In Chapter 3, an employee-centered perspective on change is developed using a systematic meta-review of prior literature on employee change reactions and responses. The objective of this study was to leverage prior research to identify which constructs—antecedents, change reactions, and outcomes—would be essential to include in an employee-centric perspective of employee reactions. Employing a systematic meta-review as the process for aggregating prior findings ensured that the constructs identified for inclusion were those found to be critical by scholars in the change reactions field. The constructs I extracted and synthesized to form the employee-centric conceptual framework (see Figure 3-2) informed the following components of my thesis. Specifically, I used this conceptual framework to explore employee change reactions across the individual-level change literature in Chapter 4. I then combined the findings of the meta-review with findings in Chapter 2 around affective reactions to continuous change to inform the measurement model used in Chapter 5.

Chapter 4. I delved further into the prior literature in Chapter 4 to explore the myriad descriptions of employee change reactions and introduce a typology of employee change orientations. More specifically, I asked: Are there distinct employee change reaction profiles that recur in the change literature? What are the specific characteristics of each profile, and how are the different profiles configured in relation to each other?

To explore this literature, I used the qualitative analysis technique of constant comparative analysis (Corbin & Strauss, 1990; Onwuegbuzie & Weinbaum, 2017) combined with an extensive review of the change literature and purposeful sampling. The starting point for this research was qualitative change research (e.g., Bhattacherjee et al., 2018; Stensaker et al., 2002) and conceptual typologies of change reactions (e.g., Lines, 2005; Oreg et al., 2018). This approach identified six different prototypes of employee

change reactions—defender, half-hearted, jaded, pragmatist, enthusiast, and challenger—which collectively I call employee change orientation prototypes. I then developed a configurational framework to situate the change orientation prototypes and clarify their distinctiveness. This framework separates the positive and negative orientations into two axes graded by activation, thus avoiding the simplistic notion that reactions are situated on a positive to negative continuum, as this is a common conceptualization that has been problematized (Oreg et al., 2018; Vakola et al., 2020). Instead, using two separate axes allowed for ambivalent reactions where an employee has simultaneous positive and negative orientations to change with differing activation levels. I used this configurational framework to design and develop hypotheses for the final set of studies in the thesis, exploring employee change orientations to continuous change. This configurational framework makes theoretical contributions which I discuss in depth below.

Chapter 5. Finally, Chapter 5 draws on the findings and conceptual developments in the three previous chapters to explore employee change orientation profiles toward continuous change using the person-centered analysis technique of latent profile analysis (LPA) (Wang & Hanges, 2011). This approach offers a superior technique for understanding unobserved heterogeneity and is complementary to variable-centered analysis techniques (Woo et al., 2018). I explore employee change orientation profiles across two studies of employees' reactions to continuous change. In these two studies, I ask: Is it possible to identify distinct employee change orientation profiles by analyzing the combination of affective, cognitive, and behavioral responses of employees concerning continuous change? Study 1 focused solely on employees who perceived they were currently experiencing change and asked how they felt, thought and behaved concerning the continuous changes in their organization. I found five of the six change orientation

prototypes predicted in Chapter 4—enthusiast, pragmatist, half-heated, cynical-jaded, and despondent-defender. This finding indicated that LPA with a combination of affect, cognitive and behavioral measures was feasible to explore change orientations.

Study 2 expanded on Study 1 in two ways. First, employees who perceived they were experiencing minimal change were included in the analysis. Second, I added two extra behavioral measures to the survey. First, I added change resistance behavior (Oreg, 2006) to address my concern that by only measuring positive change behavior, I was not gathering information about negative change behaviors. In other words, the absence of positive change behavior does not indicate the presence of negative change behaviors. Second, as the challenger profile did not emerge from Study 1, I added a measure of proactive work behavior toward the team and organization (Griffin et al., 2007) to capture any distinct profiles related to proactive change behavior. Study 2 identified six change orientations, with five of these similar to those in Study 1—despondent-defender, cynical-jaded, half-hearted, pragmatist, and enthusiast. Notably, the highly proactive challenger profile remained elusive despite the additional measure. However, an additional profile labeled *indifferent* emerged. The indifferent profile was associated with employees who perceived they were experiencing minimal change, and this was a low activation slightly positive change orientation profile. In addition, covariate analysis provided good support for classifying the distinct profiles identified in both studies. Together, both of these studies indicate that distinct profiles of continuous change orientation can be identified through the combination of both positive and negative measures of affect, cognition, and behavior toward continuous change.

6.3 Contributions to Individual-Level Change Research

Each chapter in the thesis makes positive contributions to the theoretical development of individual-level change research and literature. Below I summarize and briefly discuss the key contributions made in each chapter. I provide a summary of the key contributions of each paper in **Table *6-1***.

Chapter 2. This thesis makes four critical contributions in Chapter 2. First, the findings provide a baseline measure of the amount of change employees in three countries—the US, Australia, and New Zealand—were experiencing in 2017. Second, I identify evidence that change is indeed ubiquitous for employees. This finding supports the argument that change is an everyday part of work (Kiefer, 2005; Kiefer et al., 2015; Stensaker & Meyer, 2011), which significantly contributes to the change literature. Third, ubiquity implies that change is continuous for employees varying in intensity, implications, and type. This finding supported the proposition of Weick and Quinn (1999) that the continuous change paradigm is most appropriate for investigations of how employees experience change. Fourth, in clarifying the prevalence of change in contemporary workplaces, I have provided change researchers with critical information to guide the design of change research. For employee-centric change researchers, it supports the adoption of a continuous change paradigm (Weick & Quinn, 1999) and confirms that it should be possible to find employees experiencing changes in most workplaces. For researchers of episodic change, this finding also has important implications. While continuous change comprises many episodic and ongoing change events, studying any single episode of change as an isolated event risks ignoring the actual situation that employees are experiencing. Instead, based on my findings, I advise episodic change researchers to heed the background of continuous changes employees are experiencing

concurrently with the targeted change. I return to this point in the Implications for Research section below.

Chapter 3. The meta-review of change reactions literature in Chapter 3 makes two conceptual contributions. First, it provides a conceptual framework (Figure 3-2) that links the most salient constructs from prior literature on employee change reactions to an employee-centered approach to change experiences. My review aimed to uncover the critical constructs in the individual change literature that could be adapted or used in an employee-centric perspective on change. As I had expected, the quantitative research contained in the literature reviewed almost exclusively applied variable-centered analysis and applied an episodic change perspective (Weick & Quinn, 1999). Second, given the lack of prior research and theorizing adopting an employee-centered approach, I summarized and synthesized the current review evidence on employees' reactions, responses to change, associated antecedents, and outcomes into a single conceptual employee-centered model of reactions to change.

Additionally, this model provides a resource for practitioners and researchers to connect the employee reactions to change literature from the traditional change literature and occupational health, job design, and adaptive performance fields. This inclusivity is vital as each field has a specific focus. For example, the occupational health literature centers on employee health outcomes from specific changes while also emphasizing the insufficient understanding of employee perceptions of change (Bamberger et al., 2012) and lack of knowledge on the mechanisms associated with change and adverse health outcomes (Quinlan & Bohle, 2009). Whereas in the change reactions literature, there is a focus on the antecedents of change attitudes (Choi, 2011; Oreg et al., 2011), however, there is a lack of evidence on how this is linked to employee outcomes. Therefore, combining these adjacent

fields in an employee-centric perspective on change provides a more robust research basis for an employee-centric perspective on change.

Chapter 4. In Chapter 4 of the thesis, I develop a typology of six employee change orientations and a configurational framework (see Figure 4-1). This chapter makes four critical contributions toward developing an employee-centered approach to change. First, I present a novel typology of six change orientations, grounded in prior findings, that provides a conceptual tool for change researchers. This typology addresses concerns of construct repetitions in the literature resulting in issues of construct overlaps identified as examples of "jingle" and "jangle" fallacy errors (Block, 1995; Casper et al., 2018; Oreg et al., 2011). Providing six distinct prototypes supported by prior literature is a step toward improving the conceptual definitions (Podsakoff et al., 2016) in individual-level organizational change research.

Second, the typology presented in this chapter has the benefit of being backed by evidence from 45 papers and 72 years of change research (e.g., Coch & French, 1948; Stensaker et al., 2020) across many different types of change and contexts. I have designed the typology intending to encourage more straightforward terminology to describe employee change orientations. I hope this typology refocuses individual-level change research on the mechanisms of formation, transitions, and outcomes of change orientations, rather than describing yet further overlapping types of employee change reactions.

Third, providing a configurational framework for the change orientations identified thus far provides much-needed structure to the literature on employee responses to change (Oreg et al., 2011; Vakola, 2016). A particularly novel aspect of the configurational framework is the separation of positive and negative as two separate axes rather than a

continuum from negative to positive, which opens up the possibility of distinguishing further, more complex change orientations. Moreover, this novel presentation clearly represents ambivalent change orientations, which have previously been downplayed in the change literature (Rothman et al., 2017; Vakola et al., 2020).

Finally, the change orientation typology presented in this thesis makes a critical contribution to developing practice literature, providing concise consolidation of an extensive evidence base into six commonly observed change orientations. The typology provides an alternative to the characterization of employees as resistant to change, which current change scholars recognize as a system characteristic, not a state attributable to an individual employee (Burnes, 2015). A parsimonious typology of change orientations can become a tool for practitioners and employees (Doty & Glick, 1994) to recognize, diagnose, and develop interventions concerning change. In addition, this typology provides a practical tool for management educators to use in the teaching and learning environment. It offers a straightforward way to describe the variety of change orientations that employees exhibit in the workplace.

Chapter 5. The two empirical studies in Chapter 5 of the thesis provide six contributions. First, in Chapter 5, I present initial empirical evidence demonstrating distinct profiles of employee orientations to continuous change. This evidence demonstrates the utility of applying a person-centered approach with LPA to investigate employee change orientations by assessing and analyzing change positive and negative feelings, cognitions, and behaviors. Second, five of the change orientation prototypes predicted from prior literature—enthusiast, pragmatist, half-hearted, defender, and jaded—are identified across two studies of continuous change orientations. This finding contributes supporting evidence for the conceptual typology presented in Chapter 4.

Third, I present a configurational framework of employee orientation to continuous change, supported by empirical evidence (see Table 5-9). This updated empirically supported framework is built from the configurational framework presented in Chapter 4. The inclusion of the newly identified indifferent profile provides evidence that there could be additional change orientation profiles as predicted in Figure 4-1 as the blank space between the prototypes. This additional profile specific to a minimal change context suggests that there may be additional change orientations that relate to other yet-to-be-explored contexts.

Fourth, over half the participants across both studies indicated ambivalent change orientations, emphasizing the importance of improving our understanding of change ambivalence (Piderit, 2000). Prior literature has focused on extreme unified change reactions, such as change resistance (Oreg, 2006; Oreg et al., 2018), acceptance (Herscovitch & Meyer, 2002; Oreg et al., 2018), support (Herscovitch & Meyer, 2002; Vakola, 2016) disengagement(Oreg et al., 2018) and readiness (Armenakis et al., 1993), neglecting what may be the most common type of change reaction—change ambivalence. Chapter 5 demonstrates that enthusiastic responses to change are rare, and muted ambivalent responses are dominant. This finding extends Rothman et al.'s (2017) proposal that emotionally complex and ambivalent reactions play an essential role in signaling flexibility and adaptation to change. Fifth, I provide initial evidence in Study 2 that even employees experiencing minimal change have an orientation to change. I have not been able to identify prior research that asks employees experiencing minimal change how they think, feel and intend to behave in response to change. Given the ubiquity of change, even employees not currently experiencing change are likely to have experienced changes in the

past and will do so again in the future. Therefore, it is an important discovery that employees across change contexts hold change orientations.

Finally, Chapter 5 contributes evidence of the utility of assessing employee change orientations as each latent profile is supported with evidence from covariate analysis. The covariates of state hope, helplessness, job insecurity, job satisfaction, and OCBO were investigated and demonstrated patterns that supported the classification of each profile. A notable example was job insecurity and job exhaustion which was most significant for those with the negative change orientations of the despondent-defender and the cynical-jaded. At the same time, high job satisfaction was reported for those more optimistic about change—enthusiasts and pragmatists.

6.4 Introducing an Overarching Employee-Centric Model of Change Orientations

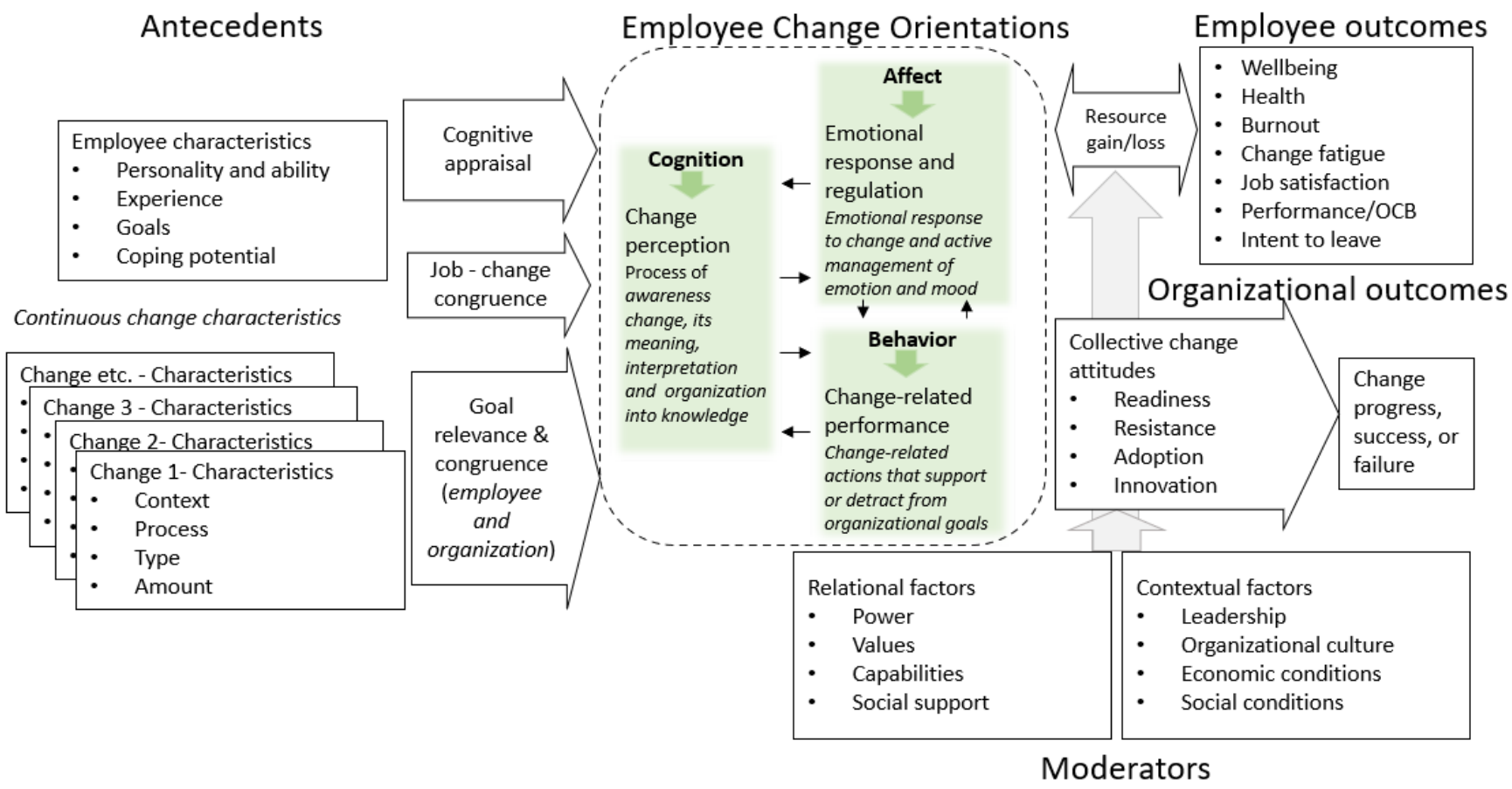
An objective of this thesis was the conceptual development of an employee-centered perspective on change. I built on the heritage of employee reactions to change research by analyzing and synthesizing this literature to provide a new theoretical direction in change research. This approach does not replace the traditional approach of episodic change and variable-centric research but rather complements it. At the same time, this new approach addresses some of the concerns of prior scholars that change research had become hamstrung by a “theoretical straightjacket” (Schwarz & Stensaker, 2014, p. 478) that focuses on change management and change recipients reactions. To progress this employee-centric conceptualization further, I propose a new guiding model pulling together the theoretical contributions of this thesis and adding to them with the recent conceptual developments in individual-level change research. In addition to this, I extend the ideas of

continuous change and change orientations to encourage further theorizing, debate, and research of the employee-centric perspective on change.

These ideas are synthesized in Figure 6-1. The remainder of this section of the chapter will introduce and extend the theorizing relating this to this model. Central to this model are the employee-centric framework (see Figure 3-2) and employee change orientations (see Figure 4-1) presented in this thesis. In addition, to encourage the advancement of theorizing in employee-centric change research, I suggest the conceptual extension of the tridimensional model of change reactions (Oreg et al., 2011; Piderit, 2000) beyond affect, cognition, and behavior discussed below to introduce a more precise definition and working model of each dimension. Following Figure 6-1, I briefly introduce the model's components and link these to relevant theory. Next, I outline how the phenomenon of continuous change could be conceptualized and applied in this model. I leverage this to discuss how the tridimensional elements of affect, cognition, and behavior could be developed to expand change orientation research. I finish the section with a summary of all of the contributions made in the thesis.

Figure 6-1

An Employee-Centric Conceptual Model of Change Orientation



Central to this model is employee change orientations (see Chapter 4), which combine an employee's feelings, thoughts, and behavior concerning change. In this model, I recommend extending the concepts of each of the three components beyond affect, cognition, and behavior. Affect is extended to include emotional response and regulation (Grandey, 2000), cognition to include the process of change perception (Prottas, 2012), and behavior is extended to include change-related performance, which could be adaptive performance (Griffin et al., 2007; Park & Park, 2019) or disruptive performance such as resistance (Oreg, 2006). Together, these represent the interlinked and ongoing internal processing employees both consciously and unconsciously engage in when responding to change in the workplace. I expand on these ideas below.

I have categorized the antecedents in Figure 6-1 as either continuous change characteristics or employee-related characteristics. I represent change characteristics as continuous change, comprising many distinct changes, each with its own set of characteristics. Research could focus on continuous change or a specific change episode, acknowledging the impact of other co-occurring changes employees perceive and considering their effects. A detailed description of the target change is needed, including context, process, type, and amount of change (Armenakis & Bedeian, 1999; Choi, 2011)—ideally collected from multiple sources for each discrete change or the full picture of continuous change. I expound on these ideas relating to continuous change in a subsequent section.

Employee characteristics are an equally important antecedent of employee change orientations. The ones chosen for this model are personality as associated with change reactions (Oreg, 2006; Oreg & Sverdlik, 2018), prior experience of change (Rafferty &

Restubog, 2016; Stensaker & Meyer, 2011), personal goals (Judge et al., 2005; Locke & Latham, 2002; Oreg et al., 2018; Stasielowicz, 2019), and coping potential (Fugate et al., 2008; A. E. Rafferty & M. A. Griffin, 2006).

Three potential mediating processes are posited between change antecedents and employee change orientations. The first is cognitive appraisal (Lazarus & Folkman, 1987), a well-recognized theory used in change research (Fugate et al., 2008; Kaltiainen et al., 2020; Oreg et al., 2018), where the employee primarily appraises the relevance of the event and secondarily appraises their options and resources to cope with the event. In addition, drawing from the affect-based model of change recipient responses (Oreg et al., 2018), goal relevance and goal congruence (Oreg et al., 2018) are included as mediating processes. Goal relevance is the significance of the change event to the employee (Oreg et al., 2018). In contrast, goal congruence has two elements which are the degree to which change is aligned with the employee's goals and the organization's goals (Oreg et al., 2018). Inclusion of this aspect adds a performance element of change behavior where employees' can perform positively or negatively to the goals set by the organization, in line with goal setting theory (e.g., Judge et al., 2005; Locke & Latham, 2002). I have added to these job congruence, which I the degree to which the changes are congruent with employees' understanding of their job—do they see change fitting with their job? For example, a health worker has the job of saving lives in a hospital. Is the change congruent with this purpose—such as an improved treatment? Or incongruent with this purpose—such as new administrative tasks to reduce costs? This type of job congruence perception is likely to have bearing on the employee change orientation.

Introducing the outcomes in Figure 6-1, I have split these into those about the employee and those relevant to the organization. First, the employee relevant outcomes comprise; employee well-being, including health, burnout, and change fatigue. As demonstrated in the meta-review, these have been topics of interest in the occupational health literature (see Chapter 2). There is good evidence that certain types of change, such as restructuring, can harm employee wellbeing (e.g., de Jong et al., 2016), and indications this is related to job insecurity (Quinlan & Bohle, 2009; Thomson & Michel, 2018). However, the evidence of the impacts of other types of change on employee wellbeing is weak (Bamberger et al., 2012), and that the relationship between change and employee wellbeing is complex (Johnson et al., 2020; López-Cabarcos et al., 2020). However, change fatigue has been reported as an outcome of high levels of continuous change (McMillan & Perron, 2020a). I also include job satisfaction, as if continuous change is a regular part of any job, then it must have an association with job satisfaction as an outcome (Judge et al., 2017; Nguyen et al., 2018). Employee performance is another critical aspect to explore because of the impact of change on employee performance. In the studies in Chapter 5, I included OCBO as a measure of employee performance. The covariate analysis showed that OCBO is likely to be related to change orientations, indicating the allied construct of job performance outcomes should also be considered.

Organizational outcomes concerning change progress, success, or failure also need to be part of this model. In this, I have adopted the perspective that what has traditionally been studied as individual-level change attitudes could be usefully considered as group attitudes under specific social conditions (Schwarz & Bouckenooghe, 2018) that mediate team and organizational outcomes such as change progress, success, and failure. It is

possible that individual change orientations contribute through social interaction to the development of group change attitudes. While this is an emerging field of research, established change attitudes are recommended as an obvious starting point, including change readiness (Rafferty et al., 2013) and change commitment (Bouckenooghe et al., 2015; Herscovitch & Meyer, 2002), also extending this to compliance (Wee & Taylor, 2018) and innovation (Chung et al., 2017).

Finally, I suggest exploring the impact of potential moderators on the relationships between employee change orientations and outcomes. I split moderators into relational factors and contextual factors. First, I include here some relational factors that prior research indicates may be important. By relational factors, I am referring to those surrounding the employee change orientations and outcomes, including power (e.g., Neves et al., 2020; Stensaker et al., 2020), values (e.g., Cotton et al., 2017; Rahn et al., 2020), capabilities (e.g., Duchek, 2019; Stensaker & Meyer, 2011) and social support (e.g., Caesens et al., 2019; Chiaburu et al., 2013). Additionally, I have included overall contextual factors as potential moderators between employee change orientations and outcomes for both employees and organizations. Examples of contextual factors to be considered as moderators are leadership style (e.g., Carter et al., 2013; Peng et al., 2020) and organizational culture (Jones et al., 2005). While culture change is sometimes the target of change efforts (Gover et al., 2016), I am referring to the organizational norms and practices related to change, such as does the organization normalizes continuous change or is it an organization that treats change as a threat. The final considerations are the macro-conditions at play in society and the economy. The current COVID-19 pandemic provides a stark reminder that the best-laid plans can be disrupted by events beyond the control of the

members of an organization (Slaughter et al., 2021). Macro-level changes such as pandemics, natural disasters, and economic shifts hold the unique position of occurring around every member of an organization, hence their importance as a moderating force. I now discuss two areas of conceptual development that underpin this model: the phenomenon of continuous change and further development of employee change orientations.

The phenomenon of continuous change. The model presented in Figure 6-1 applies the notion of continuous change. In starting this thesis, I wanted to explore the concept of continuous change as a lens to understand employees' experiences of change at work. However, it became clear early on that I faced some challenges: first, claims of the prevalence of change lacked evidence (e.g., Bersin, 2017; Oreg, 2018; Stensaker et al., 2002); second, the definitions of continuous change were disparate (e.g., Feldman, 2000; Kiefer, 2005; Weick & Quinn, 1999); third, research using a continuous change perspective was rare (Oreg et al., 2011). While this thesis has addressed some of the concerns as explained previously, theorizing and conceptual development of the phenomenon of continuous change as perceived by employees is needed. While conceptual models of emergent continuous change have been developed (Wee & Taylor, 2018), these models only focus on continuous change as a bottom-up change phenomenon with change initiated by frontline employees, ignoring the ongoing imposed changes. This bottom-up change perspective has its roots in the studies of organizational routines as continuous change (Feldman, 2000; Orlikowski, 1996), where there is ongoing continuous change as employees perform their tasks and continually adjust these routines to continue to do and improve upon their jobs. This type of continuous bottom-up change is equivalent to the

metaphor of the tight rope walker, where many micro-adjustments regulate successful ongoing performance (Tsoukas & Chia, 2002). Yet this perspective on continuous change is restrictive and does not represent the cacophony of ongoing, primarily top-down changes other scholars have observed (Dutton et al., 2001; Kiefer, 2005; Kiefer et al., 2015). I extend the Tsoukas and Chia (2002) metaphor of tightrope walking to include these aspects of ongoing top-down change. This would be the equivalent of walking the tight rope in a circus tent while management removes the big top, wants you to start doing new elaborate tricks, and is restructuring the team, meaning you have to reapply for your role. The simple metaphor of the employee as a tightrope walker falls apart, as we can imagine our metaphorical walker tumbling to the ground with distraction of multiple complex changes. It is unlikely that micro-adjustments are going to be enough. In line with this tightrope metaphor, employees experiences of continuous change are likely to be complex, change come from many directions with varying consequences, this can distract from task performance, and often requires massive adjustments on the part of employees. I argue that continuous change comprises both bottom-up adjustment changes observed by Feldman (2000) and Orlikowski (1996), along with the top-down changes observed by Dutton et al. (2001) and Kiefer (2005); Kiefer et al. (2015). The imposed and expected changes from above are intertwined with the micro-adjustments of employees necessary to maintain performance. The implication is that continuous change is complicated, nuanced, and potentially quite specific to the individual employee. Hence in Figure 6-1, I represent change as many overlapping and coinciding events. Building on my thesis's findings that change is ubiquitous in Chapter 2 and that each employee orientates to continuous change in Chapter 5, I also add that change is a persistent workplace condition.

As illustrated by the longevity of the tightrope metaphor, in spite of its limitations, metaphors help us think about change. In this regard, I introduce a new, more apt metaphor to capture the employee-centric definition of continuous change I have applied in this thesis. I suggest a kaleidoscope – in which each employee has a unique perspective on the bundle of concurrent changes from their perspective. In the metaphorical change kaleidoscope, changes emerge, drop out, interact, and dominate at different times for the individual employee. This metaphor represents the ever-present phenomenon of continuous change as a unique pattern of change for each individual. The employee's perspective is their window on the communal bundle of change enacted by the individual and the organization, like a giant communal kaleidoscope with many lenses. Therefore, returning to the representation of continuous change in Figure 6-1, continuous change is illustrated as many overlapping changes that make up a persistent workplace condition for the employee.

Further development of employee change orientations. Employee change orientations are the core of Figure 6-1. This thesis has introduced a typology of employee change orientations to encapsulate employees' nuanced reactions and responses to change. The typology in Chapter 4 derives from prior change literature. Consequently, the typology only represents employee change responses identified and reported in the peer-reviewed literature thus far. Episodic and planned change dominate this literature; as research expands to include continuous change, proactive change, and low change environments, other change orientations will likely emerge. For example, the evidence from the finding in Study 2 of Chapter 5, where the indifferent profile emerged, related to employees who perceived they were experiencing minimal change. This finding is informative, indicating the potential for other distinct change orientations.

I now discuss the multidimensional model of change reactions and the constructs used to describe affect, cognition, and behavior. The tridimensional model—affect, cognition, and behavior toward change—proposed by Piderit (2000) is frequently applied in the change reactions literature (Oreg et al., 2011). Similarly, it permeates my thesis where I have applied it in the Chapter 3 framework, as an organizing principle in Chapter 4, and in the measurement model in Chapter 5. While this has been a fruitful approach to demonstrate the nuance and variety of employee change reactions, I propose theoretically advancing the three constructs that make up the tridimensional model. More detailed and useful understandings of these dimensions can be achieved by developing constructs tailored to employee change orientations to encourage micro-level research of the psychological mechanisms. I outline how this might be achieved.

First, cognition is a generic term with many meanings and the possibility for misinterpretation. Piderit (2000) defines change cognition as the beliefs a change recipient has about a change ranging from strongly positive to strongly negative. Building on this definition, Oreg et al. (2011) describes explicit cognitive reactions, including evaluation and beliefs about a change. Cognition is an inclusive term encompassing all forms of knowing, awareness, and thoughts (https://dictionary.apa.org/cognition). However, to focus on developing employee-centric change research, I suggest using more specific terminology to encourage better conceptual definitions, as advocated by Podsakoff et al. (2016). I propose shifting from the broad concept of cognition—the employee's appraisal, assessment, or evaluation of the combination of external circumstances at work (Lee & Allen, 2002; Organ & Near, 1985)—to a focus on change perception. This is not new in the change research; however, change perception has been defined by, Armenakis et al. (1993,

p. 681) as the “cognitive precursor to the behaviors of either resistance or support of change.” This definition is problematic as it has two assumptions: first, change behavior is a dichotomy of resistance versus support, and second, the cognitive motivation of change behavior, ignoring the role of affect. Based on the evidence in this thesis, I favor the perspective that change behavior can be both affect-driven or cognition-driven, and both should be considered simultaneously. I have demonstrated this throughout this thesis in the six change orientations identified from the literature in Chapter 4 and again in the finding of distinct profiles made up of affect, cognition, and behavioral indicators in Chapter 5. However, to move this forward, the concept of change cognition needs to be developed. It is the cognitive perception of change that can be communicated by an employee as beliefs about change as they perceive it. A new definition of change perception would need to include recognizing change events, observing the progress of change, distinguishing between events, and storing these as beliefs about the change. I encourage this terminology shift to focus researchers on the psychological mechanisms and processes at work as employees encounter each and every change as they work. While the employee’s perception may not reflect reality, these perceptions impact their attitudes and behaviors (Prottas, 2012), as do their feelings or affect-driven motivations (Lee & Allen, 2002).

Second, affect is the label I have used for all emotion-related concepts and language. A dominant model of affect in the change reactions literature is the circumplex of affect (Oreg et al., 2018; Russell & Feldman-Barrett, 1999; Warr et al., 2014). I adopted this model to categorize affective language in Chapter 2 and Chapter 4. The circumplex also provided a helpful model and measurement tool to collect employees’ feelings toward continuous change and categorize them with an activation element in the Chapter 5 studies.

To encourage further development of research and theorizing of the psychological mechanisms, I propose moving beyond solely reporting affect to investigate the process of emotional regulation (Gross, 1998). Emotional regulation involves the active management of both emotions and perceptions that lead to the experience of change and the expression of change-related behavior. I suspect emotional regulation will be a psychological mechanism engaged in developing and maintaining ambivalent change orientations. An example of a field that has applied this approach is emotional labor in service roles, where Grandey and Gabriel (2015) explain emotional labor as a process of perceived emotional requirements, regulation of emotions, and emotional performance. A parallel change is associated with the performance expectation for employees. As demonstrated in the half-hearted profile identified in Chapters 4 and 5, such employees are still enacting change despite being unhappy about it. Double-acting has been observed by Ybema and Horvers (2017), with employees exhibiting performance management through frontstage compliance and backstage resistance behaviors. Applying this richer theoretical lens from emotional regulation will enliven this research area than simply reporting affect alone. In Figure 6-1,affect is represented as moving toward the concepts of the emotional regulation processes employees engage to manage their feelings and emotions when working through changes and the emotional labor that entails.

Finally, the behavioral dimension, which is the label I have applied to all employee intentions and actions toward change. I adopted behavior as a term to encompass all of the behavior-related constructs in Chapters 4 and 5. I suggest moving from the broad behavior terminology to the inclusion of individual change performance. Change performance represents an employee's actions that support or detract from the organizations' change

goals (Campbell & Wiernik, 2015). Much of what researchers label as change behavior are examples of performance, with ‘good’ performance being compliance and adaptive behaviors (e.g., Herscovitch & Meyer, 2002; Tsaousis & Vakola, 2018) and ‘poor’ performance being resistance and non-compliance(e.g., Oreg, 2003; Oreg, 2006). Thus, change performance is already implied by the behavioral measures used, and I suggest acknowledging this explicitly. I represent this more accurate view of behavior in Figure 6-1, calling this change-related performance. This could have an intentional perspective, *what I am going to do,* a hindsight perspective, *what I did,* and a present time perspective, *what I am doing right now*.

Extending the labels and definitions of change affect, cognition, and behavior in employee-centric change research may encourage deeper theorizing and further research to better understand the mechanisms at play when employees experience change at work. With this repositioning, I hope to encourage the development of evidence, theory, and practical tools that will positively impact management practice and employees' experiences of change.

6.5 Summary of Contributions

This thesis contributes to the individual change literature and the theory of employee-centric reactions to change in many ways. Chapter 2 provides evidence of change ubiquity and the continuous nature of change for employees. In Chapter 3, I analyze and synthesize the change reactions review literature to contribute a framework for employee-centric change reactions. Chapter 4 delves into the change reactions literature and identifies a typology of six employee change orientations—defender, half-hearted, pragmatist, jaded,

enthusiast, and challenger. I then contribute a configurational framework that locates these distinct profiles with positive and negative valence and action levels. In Chapter 5, I then contribute empirical evidence for five of the profiles predicted in Chapter 4 through assessing employees' affect, cognition, and behavior toward continuous change using latent profile analysis. In addition, I also identify a different change orientation profile related to those employees who are experiencing minimal change, indifferent. In addition, Chapter 5 also contributes information on the likely prevalence of each orientation profile, with 65% of the employees having an ambivalent change orientation and over half of the employees having a negative dominant orientation. In Chapter 6, I make further contributions to theory by offering an overarching model of employee-centric change orientation. This model situates the change orientations typology and configurational framework from Chapters 4 and 5 within the broader theoretical context of current change and management theorizing. I also contribute extensions to the model for each dimension of affect, cognition, and behavior to encourage a future focus on the psychological mechanisms these represent. In the rest of the chapter, I discuss the implications of these contributions for practice, research, and future change research.

6.6 Implications for Practice

Change is a fact of life for all organizations and continuous for the employees who populate them. It is essential to clarify that continuous is not the same thing as consistent. When I started this thesis, scholars were concerned with how employees would adapt to the rise of artificial intelligence and robotics (Brougham & Haar, 2017). I have completed this thesis amid the COVID-19 pandemic, where we have seen that employees can enact complex changes quickly and effectively, even in a rapidly changing environment. We

know this not through the study of change attitudes, but because our stores remained supplied with food, our hospitals kept functioning as best they could, the lights stayed on, and the banks still held our money safe. Employees made this possible when they enacted the necessary changes to keep their organizations functioning, be that working from home, managing new safety protocols, adopting new technology, or ways of working. Employees may not have been happy or ready, but they still carried out the changes. Why and how did this change happen?

As the evidence begins to emerge of the impact of these pandemic-induced changes on employees (e.g., Slaughter et al., 2021; Wang et al., 2020), the findings show that well-established factors of leadership, well-designed job changes, communication, and social support remain essential to assist employees in any change experience. This thesis's most significant practical implication is identifying a more nuanced means of talking about and conceptualizing the different ways that employees respond to change at work. I achieved this by identifying and categorizing the employee change orientations into a typology (see Chapter 4). Typologies are popular in management and social science research because they provide parsimonious frameworks to represent complex organizational factors (Doty & Glick, 1994). The framework I present does precisely this, taking the complicated literature, with hundreds of different types of change reactions and responses, labeled with a myriad of terms, and condensing these into six distinct types of change orientation. Moreover, the framework goes beyond solely a conceptual classification of observations since it is supported with initial quantitative evidence across two studies. Together, this makes the framework sufficiently robust to provide a convenient and foundational tool for educators, change practitioners, and even employees.

In turn, taking each of these user groups, the employee change orientations framework and typology will provide a valuable tool for educators. The framework and typology provide a means to describe the nuanced ways employees react to change without delving into many conflicting and confusing names given to change responses in prior literature. A benefit of this approach is that it demonstrates the greater diversity of responses to change employees can have. Additionally, consolidating the abundance of descriptions of employee change responses into a typology makes this knowledge more accessible to those who are not scholars of change. The benefit of making this broad perspective of employee responses more accessible is that it provides an alternative model to the outdated overcoming resistance to change perspective (Coch & French, 1948; Kotter & Schlesinger, 1979), which has dominated change management literature. I recommend replacing this outdated perspective with a more nuanced and respectful perspective with employees as active participants in change enactment.

This typology offers a practical tool for change practitioners to assess the impact of their actions on employees. While I did not set out to develop a practitioner-friendly tool, a change agent armed with an understanding of the different prototypes could use this typology to assess for similar patterns of reactions amongst employees to identify common types. This could happen through conversations with employees and managers. For example, consider a situation where employees are unhappy about the current change. Do they have a defender orientation, vehemently opposed and unwilling to change, or do they have a half-hearted orientation, unhappy but implementing the change all the same? This distinction would alter the strategies a change practitioner would choose to employ to achieve change. The half-hearted may require more emotional or tangible support to help

them through a difficult period of change. The despondent defender may have unaddressed concerns about the change, fear their job is at risk, need more information, or have vital improvement suggestions. Any of these could be contributing to their negative orientation to change. The findings in Chapter 5 also indicate that enthusiasts are rare; therefore, it is unrealistic to expect most employees to share their excitement for change. There is also a real risk that these change champions could become overloaded, particularly with many simultaneous changes or change agents keen to harvest their enthusiasm to drive change agendas. However, a moderately positive response with some reservations – typical of the pragmatist – may well indicate that changes are being implemented, even if quietly.

I can also see the utility in using survey instruments to measure individuals or groups of employees in organizations to gauge their change orientations. However, I do not recommend this, as the current survey could not easily be adapted for practitioners due to the large sample sizes required, >500 participants (Spurk et al., 2020), and technically demanding analysis technique of LPA. Adaptation of this typological model for use in practice will require new evidence-based tools. I recommend developing tools such as interview guides and checklists to identify change profiles to identify an employee's current change orientations that can be used in a practice setting. Additionally, short surveys tools with automated analysis could also be practical. These types of aids could assess the performance of change initiatives or introduce tailored interventions to reduce concern about a change.

I also consider the findings of this thesis could be a practical tool for employees. As employees, seeing ourselves represented can help us understand our responses through reflection, which may help with coping and personal development. For example, I can see

myself as a pragmatist concerning recent changes to online teaching due to COVID-19 lockdown measures. For me, it is not a matter of liking or disliking the change. Given the circumstances, it is just a matter of getting on with the change and making it work to get the job done to the best of my ability. For me, it is helpful to see that most people are somewhere in this ambivalent space about change. Also, it may be helpful for employees to identify if they are falling into a cynical-jaded pattern, perhaps attempting to reframe the situation or seeking help if they are becoming overwhelmed with change. Overall, the practical application for this person-centered perspective of change is vast, and as evidence grows, the applications will increase. I see opportunities to develop tools to assist in measuring change orientations and resources to assist educators in communicating this perspective to future managers and change practitioners.

6.7 Implications for Research

Positioning continuous change as an ever-present persistent characteristic of work has implications for research. In particular, given the high prevalence of change for employees, traditional episodic change researchers will need to consider the impact that the complete picture of continuous change experienced by employees has on their findings. I will illustrate this with an example of a change research project undertaken by colleagues. Specifically, their episodic change research investigates the impact of an office design change using a longitudinal study. This project has a clear beginning, middle, and end, and it is vital to understand how this type of change affects employees (Brennan et al., 2002). However, while this change project was running its course, continuous change was taking place for the employee participants in the background. Thus, employees experienced numerous other changes while the longitudinal study took place, the most notable being

changed working methods due to the COVID-19 pandemic, new online technology, and a significant restructuring involving job losses. How much of the participants' attitudes to the target change—office redesign—is due to that change alone? Versus how much is attributable to the overall continuous changes occurring? Without a control group, it would be impossible to say, which is unlikely to be a realistic option in most organizational settings.

This type of study provides an example of method bias (Podsakoff et al., 2012). I would recommend that episodic change researchers, in addition to measuring attitudes to the target change, also measure the impact of the continuous background change. This would give them some options in the analysis of their data. They could use statistical techniques to partition out the variance in attitudes to various types of change. Another option would be to acknowledge that other changes were likely to influence attitudes, noting this limitation. There could be design remedies such as only getting data from those employees to whom the change is highly salient. None of these is a perfect solution; however, episodic change research must consider and account for the impact of continuous change on their findings.

I also recommend that continuous change be acknowledged as context when reporting research on episodic change. For example, Kanitz et al. (2021) identified that the interplay between what appear strategically to be discreet changes can significantly impact the success of the target change and how people feel about the change. Returning to the previous office design example, consider visual privacy—the concern of unwanted observation—a variable of concern in open-plan office design (Kim & de Dear, 2013). Would visual privacy be a more significant concern for employees who have also entered a

restructuring phase with the potential of job loss at the same time as the shift to open plan? We know that restructuring is associated with increased job insecurity and stress (de Jong et al., 2016). Job insecurity is associated with reduced trust and job satisfaction (Shoss, 2017). To put this in practical terms, if employees were concerned about losing their job or competing with fellow employees to retain their position, would visual privacy be of greater importance? It probably would, and certainly more than when employees felt secure and comfortable in their roles. I suspect analysis of this issue could lead to a potentially misleading finding if the office change was examined in isolation; however, a fuller picture of the concurrent changes provides more information to consider when interpreting the findings. This type of detail is necessary to build a clearer understanding of the implications of change in the workplace.

Next, considering organizational change failure, the implementation of one change may be judged a failure by employees when considered in light of other concurrent changes (Hay et al., 2021). This concern is not new. For example, Heracleous and Bartunek (2020) recommend a shift away from the study of change as an intervention toward adopting a fuller meaning of change that explores the complexity of change adoption at all levels of the organization. In this approach, researchers are asked to recognize that obvious surface-level indicator of change progress, success or failure, may not mirror the level of deeper level change or the different conceptualization of change held by different stakeholders (Bartunek & Woodman, 2015; Heracleous & Bartunek, 2020). I relate this to my earlier change kaleidoscope metaphor. The employee viewing the kaleidoscope observes a pattern due to the refraction of light through a combination of beads or glass fragments. Let us imagine each bead is a distinct change. As a change researcher, we may be interested in the

responses to just one bead, yet each employee will have a unique perspective of the same bead as it intermingles with all of the other beads, as the employee views it through their unique lens. To understand the role of background change, first, I would recommend adopting the qualitative research approach, narrative analysis (Riessman, 2008). By this, I mean listening to employees talk about current change in their workplace, in a storied way containing past actions and changes, present situations, and future expectations and plans. A benefit of a narrative approach is that it provides an insight into employee sensemaking concerning the continuous change context, as demonstrated in studies of managerial and employee discourse (Sonenshein, 2010), senior manager sensemaking (Balogun et al., 2015), and identify shifts (Hay et al., 2021) in response to strategic change. Thus, the use of narrative analysis to understand employees' sensemaking of continuous change could leverage the techniques used by the strategic change scholars.

Continuous change is an important contextual variable that needs to be considered by micro-level change researchers. It has implications for the design of change research studies, particularly those investigating discrete episodes of change. I urge researchers to not only collect data related to the change of interest but also any background changes the employees may also be experiencing to begin building a picture of how these could be influencing attitudes about the target change. At the very least, I would encourage the declaration of the presence of continuous background change and its likely influence on their findings as a limitation in research papers reporting on employee responses to episodes of change.

6.8 Future Research

While my thesis has made multiple contributions, as discussed above, I also consider this body of research to be a starting point for employee-centric change research. Many opportunities for future research stem from the findings and theoretical developments made in this thesis. I will touch on the most pertinent here.

Continuous change over time. Change is temporal by its very nature and unfolds across time (Bartunek & Woodman, 2015; Tsoukas & Chia, 2002). Therefore, an obvious next step in developing an employee-centric perspective of continuous change is to empirically explore how employees' perceptions of continuous change develop and vary across time. Longitudinal research will be required using a mixture of methods and approaches to building a complete picture. The mixed-methods approach adopted by strategic change scholars to investigate interfering change (e.g., Kanitz et al., 2021; Kunisch et al., 2015) could be a starting point for study designs. In this research, initiatives are followed to gauge the impact of multiple strategies on change success. While adopting a macro-level perspective, this mixed-method research approach has also identified the role of employee-level emotions in multiple changes and emphasized this as being a critical area for future research (Kanitz et al., 2021).

An alternative technique applying a micro-level approach is diary studies that continuously track change responses over shorter time frames. The benefit of diary studies is that they avoid the hindsight bias inherent to traditional survey approaches (Ohly et al., 2010); moreover, narrow timeframes could test the stability of responses to continuous change. Tracking the day-to-day events and their effects from an employee's perspective is

an approach applied to research of other aspects of working life such as work-life balance (Haar et al., 2017), leadership styles (Breevaart et al., 2016), and job characteristics (Zacher, 2016) indicating this approach may well be applicable for tracking the phenomenon of continuous change. Based on these prior studies of within-person variance to externally varying constructs in the workplace, I believe that continuous change would be a good fit for understanding within-person variance in perceptions. Ethnographic-type studies that follow the unfolding intricacy of continuous change (van Hulst et al., 2017) could also be a valuable approach to researching how employees' change orientations develop and transition. This approach has been applied successfully in planned change (e.g., Ybema & Horvers, 2017), uncovering the nuanced ways employees manage to resist the planned change. Such ethnographic research applied to continuous change could uncover how and why employees' actions unfold over time within the context of multiple, ongoing changes.

Change characteristics. In the model presented in Figure 6-1, I represent change as multiple overlapping changes when describing the characteristics of continuous change. This raises the issue of how to measure change characteristics. How do employees think about these coinciding changes? Do employees have each change cognitively mapped with separate information about each change? Or do employees make an overall assessment of the current situation with all of the change intertwined? I will use job insecurity to illustrate. The perceived harm or benefit of the change could be due to a shift in job insecurity, the employees' perception of how likely a job loss is (Hellgren et al., 1999). In Chapter 5, job insecurity is measured as a covariate. When employees report their job insecurity, are they basing this on one particular change or the combination of changes

making up continuous change? For the future exploration of this question, the characteristics of the continuous change an employee is experiencing would be helpful. I suggest taking a multisource approach of asking employees and management to describe each distinct change they perceive, with its own set of characteristics—process, implications, and personal impact. This could be a helpful way to understand what employees consider is changing and link this to managements' perceptions of the organization's ongoing change. From this type of analysis, a way to conceptualize continuous change could be as layers where each change contributes to the employees' perception of the amount of change currently occurring. Assessing this will be complex, and, as highlighted above, I recommend qualitative research techniques such as narrative analysis (Riessman, 2008) as a starting point, talking with employees about the combination of continuous change they are experiencing to unpick this kaleidoscope of continuous change.

Developing detailed descriptions for each change orientation and any emerging profiles. In this thesis, I have argued that at least six employee change orientations are present in the change literature (see Chapter 4) and in relation to continuous change (see Chapter 5). A logical next step in their development is to extend and examine whether additional evidence supports or refines definitions of each change orientation and its supporting evidence. For instance, the defender profile has considerable supporting evidence from the change literature (see Chapter 4). Additionally, the LPA identified this profile in the continuous change context (see Chapter 5). The defender represented 21-23% of the participants across Studies 1 and 2, respectively. The covariate analysis indicated this profile is typified by low hope with high helplessness and job insecurity. This combination

of factors led me to add the label of despondent to this profile: The despondent-defender in Chapter 5, a less active label with a greater emphasis on emotional response than the defender described in Chapter 4. This despondence seemed to be a dominant feature of this profile in the two Chapter 5 studies concerning continuous change. While changing the conceptual typology based on two studies would be premature, I suggest that more of this type of empirical data is needed to develop the labels and definitions of each prototype and check their stability. In particular, there might be a difference between empirical studies from episodic and continuous change perspectives. For example, activity to defend the status quo observed in prior research targeted at specific change events might surface the defender, whereas, in a continuous change context, the prospect of acting against change may be daunting, which might engender a more despondent orientation against change. Advancing research of this type will be essential to develop the definitions of employee change orientations.

Ambivalent change orientations—pragmatists, half-hearted, and cynical-jaded. Ambivalent profiles within continuous change account for about 65% of the profiled responses across the studies in Chapter 5 . While change ambivalence has been discussed for over 20 years (Piderit, 2000), exploration has been minimal (Vakola et al., 2020), potentially because of the dominance of theoretical models that favor four united types of change response (e.g., Oreg et al., 2018) that is those of resistance versus support. Ambivalent and muted responses receive little attention in the empirical literature (Vakola et al., 2020) and are sidelined by scholars in the conceptual literature as an inconvenient fifth miscellaneous type (e.g., Lapointe & Beaudry, 2014; Lines, 2005). With over half of the employee respondents in two studies showing ambivalent change orientations, the time

has come to understand change ambivalence. In particular, given the apparent predominance of these, we need to understand more about how ambivalent change orientations contribute to the implementation of change and affect employee outcomes. Research indicates that ambivalence can be an adaptive response related to cognitive flexibility for leaders (Rothman & Melwani, 2017) and that emotional ambivalence can also be interpreted as submissiveness that can have negative consequences for the employees (Rothman, 2011). In recent change research, ambivalent responses were linked to adaptive responses in some circumstances, but not all (Vakola et al., 2020). I agree with Vakola et al. (2020) and call for further theorizing to develop our understanding of the role of ambivalent change reactions in employee change behavior as an avenue to understanding how to interpret, intervene and change employee change attitudes. Additionally, if we find that change orientations are malleable, is there an optimal orientation for employee wellbeing? There will be a need to develop our theorising and understanding of the mechanisms underpinning an employee's expressed affect, cognition, and behavior toward change to answer these questions.

Exploring employee change orientations through adopting more complex research designs. I recommend exploring employee change orientations using more complex research designs. First, an obvious starting point is exploring transition trajectories (Hay et al., 2021) of employees between change orientation profiles, including assessing transition direction under differing conditions. An example of the different conditions could be during organizational growth or decline periods or industries working through highly disruptive change such as agriculture or transportation. The analytical technique of latent transition analysis (LTA) is recommended for this type of longitudinal research (Lanza,

Bray, et al., 2013). In addition to this quantitative approach, I recommend qualitative approaches to develop a rich understanding of the transitions. An example of this type of research approach is the transition trajectory approach used in qualitative research of change narratives (Bindl, 2019; Hay et al., 2021) and repeated interviews across a change program (Chen & Reay, 2020).

The stability of change orientations is also an exciting avenue for research. For example, the defender profile has featured strongly in episodic change research, so perhaps it is highly changeable depending on the changing context. In contrast, those in the pragmatist profile may approach all change from this no-nonsense stance, and hence the profile may be highly sustainable due to its lower activation. This would need repeated measures type research designs using techniques such as diary studies (Ohly et al., 2010) to assess the stability periods and potential transition triggering events. In addition, such temporal research should consider the role of personality, as personality traits, such as low openness to change, have been related to change resistance tendencies (Oreg, 2006; Oreg & Sverdlik, 2018). Therefore, it would be reasonable to expect personality factors to stabilize and destabilize change orientations. The application of these longitudinal techniques would track the development and dissolution of change orientations. I would also expect other transitory change orientations to emerge with implementing more complex research designs using longitudinal data collections, multiple data sources, and mixed methods.

Broadening the covariates of change orientations will also be a crucial line of research. In Chapter 5, I included state hope, helplessness, and job insecurity as antecedents of profile membership and job satisfaction, intention to quit, OCBO, and job exhaustion as distal outcomes. These were promising variables to include and were helpful indicators of

profile label appropriateness. While the analysis of covariates is currently a matter of debate (Nylund-Gibson et al., 2019), techniques to analyze these outcomes will improve. Research studies that focus on the role of these covariates in the formation of change orientations will also be necessary. Extensive longitudinal studies and LTA that explore causal relationships will be necessary for this type of exploration. Undoubtedly, many more questions can and should be asked in what I predict will become an exciting and much-needed field of research.

There is a need for further research in different contexts with additional covariates to build nuanced definitions of each change orientation. The defender profile has received the most research attention to date (see Chapter 4). In contrast, I could not identify similar levels of evidence reported in the literature for the other five profiles, despite using a purposeful sampling strategy to try and find additional examples. The focus on the defender profile type responses in the literature has probably evolved because of the risks to successful change implementation posed by such employees for change agents, managers, and employees, even though my results indicate the defender is not the most prevalent change orientation. I encourage researchers to include more research on employees who are implementing change, be it half-heartedly, pragmatically, enthusiastically, or challenging the status quo with self-initiated change. This increased focus will see an equally rich body of empirical evidence developed to uncover and underpin a larger set of change orientations, including the other five identified in this thesis—pragmatist, half-hearted, jaded, enthusiast, and challenger. The results in Chapter 5 indicate that the first four of these represent the change orientation held by most employees toward continuous change even amid a pandemic. I would also suggest exploring which of these change orientations is

optimal for employees, organizations, and change implementation, noting that these may differ.

Developing measures and measurement models for change orientations. The development of tailored measures is a recommended next step in advancing employee-centered change research. In the two empirical studies presented in Chapter 5, I adapted existing measures of affect (Warr et al., 2014) and change reactions (e.g., Oreg, 2006; Tsaousis & Vakola, 2018; Wanous et al., 2000) to measure orientations to continuous change. While these measures showed good reliability and performed well in confirmatory factor analysis, this adaptation of measures is a limitation of these studies. I recommend developing measures to capture distinct change orientations concerning both continuous and discrete change episodes, perhaps using specially designed employee-centric measures of continuous change feelings, thoughts, and actions. It may be fruitful to adopt an inductive approach with qualitative techniques, such as content analysis (Duriau et al., 2016), to develop the constructs and items for instruments (Hinkin, 1998) tailored to capture continuous change orientations.

Complementary use of person-centered and variable-centered analysis approaches. The variable-centric analysis approach focuses on the interrelatedness of specific variables and infers an underlying process or causal effects (Wang & Hanges, 2011). The variable-centric approach assumes that a sample of individuals is drawn from one population; this approach implies that a single set of averaged parameters can be estimated (Morin et al., 2018). Juxtaposing this approach is person-centered analysis, which relaxes this assumption and explores the possibility that the sample could represent a population made up of multiple subpopulations, each characterized by different sets of

parameters (Morin et al., 2018). The person-centered approach considers the interrelatedness among variables as a function of unobserved heterogeneity in the population (Wang & Hanges, 2011). Person-centered analysis has come to be recognized as a set of methods that complement variable-centric research by exploring unobserved heterogeneity rather than providing an alternative form of analysis (Mäkikangas & Kinnunen, 2016; Morin et al., 2018; Wang & Hanges, 2011; Woo et al., 2018). Complementary variable- and person-centric approaches have been used extensively in the analysis of the dimensionality of psychometric constructs (Gillet et al., 2019; Morin, Boudrias, et al., 2016) and to identify groups of people who demonstrate distinct configurations of interrelated variables (e.g., Solinger et al., 2013; Tóth‐Király et al., 2020).

The majority of organizational change reactions research uses a variable-centric approach, which means examining the relationships between variables across a set of individuals. This thesis has explored how a person-centered approach could be applied to employee reactions to change. To demonstrate how person-centered approaches could complement the existing variable-centered analysis in future research, I use the example of a series of variable-centered studies Oreg and Sverdlik (2011) conducted to investigate the relationship between dispositional resistance to change, the employee's orientation to the change agent, and ambivalence toward the change. Oreg and Sverdlik (2011) identify an inverted-U relationship between change ambivalence and change support attitudes, identifying that mid-range change support responses could be confounding mild indifferent reactions and ambivalent reactions. The authors speculate that some employees are likely ambivalent, while others have strongly polarized reactions, with a potential third group that

has an indifferent reaction. From this, Oreg and Sverdlik (2011) recommend further research to investigate the ambivalent responders. This type of identification of unobserved heterogeneity in the variable-centered analysis is not uncommon (Wang & Hanges, 2011); however, person-centered research techniques are required to confirm and characterize this heterogeneity (Hofmans et al., 2021). Hence my decision to start addressing this issue by using a person-centered approach to explore the possibility of multiple subpopulations of change reactions exhibited by employees.

In Chapter 5, the person-centered approach is designed to test this observation of Oreg and Sverdlik (2011) and many others (e.g., Stensaker et al., 2002; Vakola, 2016) using qualitative research techniques. My findings, as presented in Chapter 4, show that employee change reactions include multiple interrelated variables that represent the heterogeneous groups of employee change reactions. By using the person-centered approach of latent-profile analysis, I identified that employee change reactions are heterogeneous, some polarized, some ambivalent, and some indifferent. This example demonstrates how variable- and person-centered approaches to analysis in change reactions research are complementary, and their application needs to be appropriate to the research question. Using both variable- and person-centered analysis provides a more complex and complete picture of the possible employee change reactions.

6.9 Limitations

This thesis has provided many significant contributions, and yet like all research, there also exist limitations. Within each chapter presented, I have highlighted the limitations specific to each study. To avoid duplication, I will not repeat these here. Instead,

I touch on four main limitations. First, the empirical work is cross-sectional, which, while appropriate for exploratory research (Spector, 2019), precludes any discussion of causality as it can only provide a snapshot in time. Change by its very nature occurs across time, and it will be necessary to explore continuous change across time for this field to progress. The second limitation is that the data in Chapters 2 and 5 are collected from paid research panel participants working in the US, Australia, and NZ. While allowing for a broad cross-section of the working population, this approach does not investigate the continuous change in specific industries, professions, or organizations. For example, massive changes have occurred in healthcare (López-Cabarcos et al., 2020), supply chain (Mollenkopf et al., 2020), and hospitality (Guzzo et al., 2021) due to the recent pandemic that might show a different picture from office workers who could continue much the same type and way of working except for the shift to remote working (Wang et al., 2020). Third, even though the two studies in Chapter 5 found distinct change orientation profiles, the reliance on measures adapted from traditional episodic change may have limited the possible outcomes. While these performed adequately to allow for LPA, it does beg the question, is there a better way to measure employee change-related feelings, thoughts, and actions? Fourth, the two studies in Chapter 5 were cross-sectional, which is typical for LPA studies (Spurk et al., 2020). While I have noted already that this is appropriate for exploratory research (Spector, 2019), it has the limitations of common method bias (Podsakoff et al., 2003). It will be essential to replicate these studies in different contexts to continue to validate the distinct profiles identified. While covariates were included in the studies reported in this thesis, they were recorded in the same survey as the profile predictors. A suggestion to overcome this would be to collect these in a separate survey to strengthen the validation evidence, and

reduce any influence common method bias (Podsakoff et al., 2003), although this would still have the common method issue posed by using a survey method. Together these limitations point to many opportunities to develop research on employee-centric change orientations and continuous change from this exploratory base.

6.10 Conclusion

The research presented in this thesis demonstrates that change is common for employees, that employees respond to change with distinct change orientation profiles, and that these change orientations can provide a foundation for an employee-centric perspective on change. Demonstrating the ubiquity of change, approximately 73% of employees across the US, Australia, and New Zealand were currently experiencing change at work, with few differences by country or demographics (see Chapter 2). This finding also contributed to the definition of continuous change and the adoption of this perspective to assess employee change orientations. Reviewing the literature, I developed an employee-centric framework of organizational change reactions with distal and proximal antecedents and outcomes (see Chapter 3). The framework provides a cornerstone for the development of the employee change orientations, the measurement model used in the profile analysis, and the employee-centric conceptual model presented in this chapter (see Figure 6-1). I introduced the concept of employee change orientations with a typology of six prototypical employee change orientations and a framework supported by the qualitative and conceptual change literature (see Chapter 4). A configurational framework categorizes each prototype with a positive and negative valence varying by activation strength, allowing for consistent and ambivalent prototypes. This typology provides a practical tool to consolidate the vast wealth of prior research on employee change reactions and make it accessible to educators,

practitioners, and employees. My research uncovered six employee change orientation profiles toward continuous change; five of these match profiles predicted from the literature (see Chapter 5). Building from these contributions, I hope my contributions stimulate change research in three key directions – a stronger focus on continuous change; greater consideration of employee-centric perspectives; and ameliorating our understanding of employee change orientations.

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Appendices

Appendix A- Chapter 2 Supplementary materials

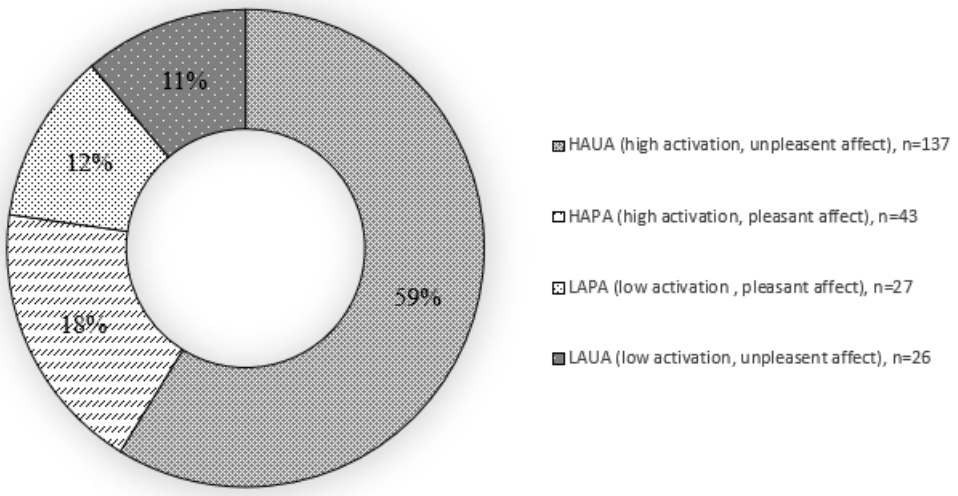
Table A.

The number of change-type responses by amount of current change

Change-type	Current amount of change					
	Minor	Modest	Moderate	Massive	Totals	% of total
Ownership	9% (3)	26% (9)	35% (12)	29% (10)	34	4%
Expansion and growth	14% (6)	40% (17)	33% (14)	12% (5)	42	5%
Staffing	34% (27)	28% (22)	31% (25)	8% (6)	80	9%
Working conditions	28% (24)	32% (28)	30% (26)	10% (9)	87	9%
Technology	29% (28)	31% (29)	32% (30)	8% (8)	95	10%
Restructure	19% (28)	24% (35)	34% (49)	23% (34)	146	16%
Job tasks	27% (45)	36% (60)	35% (59)	2% (4)	169	19%
Multiple-changes	13% (34)	26% (68)	33% (86)	27% (71)	259	28%
Total responses					912	100%

Note. Change-types identified showed considerable variation. We note that the number of participants reporting multiple-changes was quite high, making up 28% (259/912) of the change-type responses. Those reporting moderate to massive amounts of change made up 60% (157/259) of the multiple-change responses. This finding suggests that many employees experience multiple changes occurring at once, and that employees experiencing multiple-changes report a larger amount of change. The change-types of restructuring and business ownership were rather evenly distributed across the change amount indications. However, changes to job tasks, technology, working conditions, and staffing were less likely to be rated as a massive amount of change. This could also be due to the multiplicity of changes occurring in a change event like a restructure or business ownership change. Given the recognized negative impact of restructuring on employee wellbeing (de Jong, et al., 2016), this warrants further investigation.

Figure A. *Distribution of affect-rich language analysis of the open-ended comments from employees experiencing moderate to massive change* (*n*=233)



Additional Correlation Tables not included in the publication.

Table B. *Means, standard deviations, and correlations for whole sample*

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1.Change intensity	2.66	1.322	-									
2.Change count	0.70	.823	.565**	-								
3.Age of respondent	45.17	13.446	-.099**	-.023	-							
4.Gender of respondent	1.57	.498	.018	.088**	.113**	-						
5. Education	2.62	1.050	.118**	.027	.115**	-.083**	-					
6.Hours of work per week	37.23	9.407	.107**	.105**	-.006	-.142**	.102**	-				
7.Tenure with employer	9.20	8.355	-.022	-.029	.453**	-.103**	.021	.171**	-			
8. Size of firm	3.35	2.024	.211**	.167**	-.060*	-.039	.157**	.159**	.099**	-		
9. Sector	1.39	.624	.056*	.063**	.106**	.156**	.062**	-.060**	.058*	.150**	-	
10. Absence/Presence of change	1.728	.445	.766**	.517**	-.122**	-.015	.133**	.078**	-.048*	.168**	.039	-

Note. (N= 1,755) * Correlation is significant at the 0.05 level, **Correlation is significant at the 0.01 – (2-tailed)

Table C *Means, standard deviations, and correlations for Australia*

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1.Change intensity	2.59	1.386	-									
2.Change count	0.61	.766	.627**	-								
3.Age of respondent	45.94	13.311	-.058	.020	-							
4.Gender of respondent	1.57	.504	.052	.081	-.187**	-						
5. Education	2.40	1.036	.157**	.076	-.149**	-.081	-					
6.Hours of work per week	35.98	9.304	.088*	.043	-.059	-.257**	.065	-				
7.Tenure with employer	9.74	8.206	.048	.033	.402**	-.170**	-.084	.197**	-			
8. Size of firm	3.18	2.047	.280**	.266**	-.115**	-.037	.187**	.196**	.092*	-		
9. Sector	1.36	.615	.055	.032	.022	.192**	.068	-.145**	.024	.178**	-	
10. Absence/presence of change	1.67	.469	.798**	.550**	-.149**	.034	.202**	.037	-.014	.259**	.048	-

Note. (N= 506) * Correlation is significant at the 0.05 level, **Correlation is significant at the 0.01 – (2-tailed)

Table D *Means, standard deviations, and correlations for New Zealand*

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1.Change intensity	2.76	1.292	-									
2.Change count	0.90	.920	.587**	-								
3.Age of respondent	43.24	13.627	-.009	-.014	-							
4.Gender of respondent	1.58	.493	.079	.088*	.222**	-						
5. Education	2.45	1.036	.139**	.109*	-.091*	.026	-					
6.Hours of work per week	37.04	10.013	.160**	.201**	.063	-.183**	.073	-				
7.Tenure with employer	6.8	7.301	-.001	.045	.453**	-.148**	-.028	.191**	-			
8. Size of firm	3.00	1.979	.190**	.205**	.033	-.021	-.015	.199**	.140**	-		
9. Sector	1.40	.616	.138**	.110*	.108**	.134**	.091*	-.017	.106*	.170**	-	
10. Absence/presence of change	1.78	.414	.735**	.521**	-.035	.005	.113**	.076	-.023	.137**	.094*	-

Note. (N= 519) * Correlation is significant at the 0.05 level, **Correlation is significant at the 0.01 – (2-tailed)

Appendix B - Chapter 3 Supplementary materials

Search query

The search terms used are listed below:

“resistance to change” OR “reaction* to change” OR “respon* to change” OR “accept* of change” OR “change appraisal” OR “open* to change” OR “will* to change” OR “readiness to change” OR “attitude to change” AND TITLE-ABS-KEY (employee* OR manager* OR agent* OR user*)

In addition to this search, these additional searches were included

(“organi?ational change” AND behav*) AND TITLE-ABS-KEY (employee* OR manager* OR agent*)

("organi?ational change" AND (affect OR emotion OR mood)) AND TITLE-ABS-KEY (employee* OR manager* OR agent*)

("organi?ational change") AND (cognition OR belief* OR commitment OR attitude) AND TITLE-ABS-KEY (employee* OR manager* OR agent*)

(“organi*ational change” AND (individual OR human OR employee OR worker) AND (behaviour OR behavior) AND (review OR meta-analysis OR systematic))

The search was then restricted to minimize the number of unrelated articles from health, animal behavioural studies and environmental studies:

AND NOT TITLE-ABS-KEY (child* OR animal* OR rat* OR pigeon* OR smok* OR drug* OR alcohol* OR enviro* OR energy)

*=wildcard, ABS=abstract, KEY=keyword

Table B1

Summary of reviews

Review grouping	Change constructs	Method	Studies	Findings
Antecedent-Change type				
Knight & Parker (2021)	The affect of top-down work redesign interventions on performance.	Systematic review	55 studies Quantitative	Good evidence that work redesign can enhance performance (36 studies). This can happen through a range of mechanisms and different conditions. Work redesign can change work characteristic perceptions (21 studies). This indicates that job redesign is likely to be a vehicle for improving employee well-being and performance in the workplace.
Antecedent - Change context				
Fugate (2012)	Impact of leadership, management and HRM on employee reactions to change.	Narrative review	Numbers not specified	Leader behavior is essential in guiding, sensemaking, and motivating change recipients. Employee reactions to change literature considers reactions at the individual level also almost exclusively. The trend to examine more complex reactions including the commitment to change and resistance to change as multifaceted constructs. However, varied instruments and concept definitions are hampering efforts—lack of theory and rigorous testing.

Review grouping	Change constructs	Method	Studies	Findings
Oreg & Berson (2019)	Leadership and organizational change were the focus. Part of the review includes a section reviewing leader behaviors and change recipient responses.	Narrative and integrative review	Numbers not specified	The largest body of evidence was found of the impact of leader behaviors on change recipient responses. This is primarily quantitative, psychological. Key leadership behaviors influencing change recipient attitudes were effective communication, supportive and attentive to concerns, and involving followers. Mediation studies indicate these three mechanisms to explain how leaders influence change recipient attitudes to change. Gaps identified are the influence of change recipients on leaders' behaviors and strategies. Need for a more complex conceptualization of employee responses to change.
Peng (2020)	Transformational leadership style and its relationship to employee reaction to organizational change.	Meta-analysis	30 studies (N = 12,240) Quantitative	Transformational leadership style correlates with the attitudinal constructs of commitment to change positively, readiness to change, openness to change, and a negative relationship with resistance to change and cynicism.
Mechanism - Reactions to Change				
Elrod & Tippett (2002)	Overview of models of human responses to change and transition. The military US and not stated	Narrative review	Five studies Quantitative	Most models followed the Lewin (1952) three-phase model of change. Almost all identify a reduction of capability at an intermediate stage.

Review grouping	Change constructs	Method	Studies	Findings
	organizational change.			
Holt (2007)	Readiness for change	Narrative review and facet analysis of instruments	32 measurement instruments	Readiness for change is measured from four perspectives: change content, change process, organization context, or individual attributes. Change readiness relevant to the first phase of a change process, recommend more theories to explore other phases.
Armenakis & Harris (2009)	Individual beliefs about change; the change recipient is an active participant, creating readiness for change; assessment of reactions to change.	Narrative review	30 years of their research	Integration of employee change readiness into a systemic model internalizing change.
Bouckenooghe (2010)	Readiness for change, resistance to change together represent 92% of the conceptual work.	Narrative review	58 studies 89% quantitative, 11% qualitative, mixed methods.	Planned change is the prevailing type of change studied when researching employees' attitudes to change—calls for more continuous change research and reframing of attitudes to change in this context. 84% of studies adopted an individual level of analysis. 89% of the articles relied on quantitative empirical data, mostly cross-sectional—variance research strategy prevailing approach.
Erwin & Garman (2010)	Resistance to organizational change.	Narrative review	16 studies - Quantitative	Limited research methodologies were used. Construct of Resistance to change as many definitions and measurement approaches,

Review grouping	Change constructs	Method	Studies	Findings
			Two studies - Qualitative	leading authors to describe these definitions as divergent. Lack of well-defined measurement approaches.
Jaros (2010)	Commitment to change initiatives and linked antecedents.	Narrative review	15 studies Quantitative	Evidence indicates a commitment to change does predict change-related behaviors. Construct validity evidence is weak and needs further research to distinguish between the foci of change and other foci like organization.
Choi (2011)	Readiness for change. Commitment to change. Openness to change. Cynicism about organizational change.	Integrative literature review	56 studies Quantitative.	Clarity of definitions of each of the four constructs is necessary. Considerable overlap in the antecedents for all four constructs. Recommends examination of overlap and potential development of a broader construct. Recommends further research using change-related behavioral outcomes such as support and organizational change behaviors.
Oreg et al., (2011)	A split review across antecedents, pre-change, and change; explicit reactions, change consequences.	Inductive literature review.	79 studies. 45% longitudinal Quantitative.	Inconsistency of terms relating to reactions to change. Inconsistent application of measurement tools. The majority of cross-sectional studies are two-point longitudinal studies that did not tie change recipient responses across time. Only nine studies included change content as an antecedent to reactions to change.

Review grouping	Change constructs	Method	Studies	Findings
Rafferty et al., (2013)	Change readiness (cognitive, affective, and overall readiness).	Theoretical review	Number not stated, and no search methodology included. Expert review and theory development focus. Quantitative.	Researchers have omitted the affective element of readiness to change, recommend its inclusion. Recommend studies taking a multilevel approach to understanding change readiness.
Vakola et al., (2013)	Builds on the Oreg et al, (2011) review model. Focus on the antecedent group of change recipient characteristics, including personality disposition, coping styles, motivational need, and demographics—explicit reactions to change using the tripartite model of affect, cognition, and behavior.	Integrative review	Sub-set of the Oreg et al, (2011) review – 57 quantitative studies.	Researchers have focussed mainly on the personal disposition of self-efficacy and locus of control, with much less attention to coping styles and motivational needs.

Review grouping	Change constructs	Method	Studies	Findings
Bouckenooghe et al, (2015)	Affective commitment to change (ACC), Continuance commitment to change (CCC), Normative commitment to change (NCC), Behavioral support for change – compliance, cooperation, and championing.	Meta-analysis. Generalizability outside North America tested.	17 studies Quantitative	A high correlation between ACC and NCC (ρ=.58). A moderate correlation between NCC and CCC (ρ=.34). The a high negative correlation between ACC and CCC (ρ=-.50). ACC and NCC were positively correlated to behavioral support for change, whereas CCC was negatively correlated. With ACC having significant correlations with discretionary support (cooperative .66, championing, .63). Negative relationships were found between CCC and discretionary behaviors (cooperation, -,23 and championing, -.30). Mentioned the use of person-centered analysis.
Thundiyil et al., (2015)	Organizational change cynicism.	Meta-analysis	Thirty-three primary studies (37 independent samples) were cross-sectional. Quantitative.	Change cynicism is related yet distinguishable from organization trust, resistance to change, and organizational cynicism. Critical of dark side focus and relating cynicism to failure of initiatives. Lack of conceptual clarity identified and the need to explore a range of behavioral outcomes related to change cynicism.
Outcomes – Employee behavior- Adaptative performance				

Review grouping	Change constructs	Method	Studies	Findings
Baard et al. (2013)	Performance adaptation mechanisms.	Integrative conceptual review	57 individual-level studies 49% experimental	Problems in the literature include a lack of mechanisms, conceptual consistency, and a limited research base of many experimental studies or large sample observational studies.
Huang et al., (2014)	Personality and adaptive performance at work	Meta-analysis	71 independent samples (N= 7, 535)	Included the personality traits: emotional stability, ambition (a facet of extraversion), and openness. Openness did not contribute to adaptive performance. Ambition is the strongest predictor of proactive, adaptive performance. Emotional stability is most important for reactive performance adaption. These results are moderated by hierarchical level, with managers showing a more substantial relationship than frontline employees.
Jundt et al., (2015)	Individual adaptive performance and its antecedents.	Narrative review	Not stated Quantitative	They identify both distal and proximal predictors of individual adaptive performance. Distal predictors are Individual differences (cognitive ability, conscientiousness, emotional stability, and mastery), training and learning (Error-management training, adaptive guidance, and exploratory learning); Contextual factors (leader support, transformational leadership) Proximal predictors: Motivation (Self-efficacy, metacognition) Cognitive processes

Review grouping	Change constructs	Method	Studies	Findings
				(declarative knowledge, knowledge structure coherence and adaptive experiences)
Park & Park (2019)	The antecedents of adaptive performance.	Integrative literature review	34 studies Quantitative	They identify 22 antecedents overall with nine at the individual level, which are: personality (openness, emotional stability, conscientiousness, and extraversion), ability, skills, and knowledge; prior experience, age, self-efficacy, self-regulation, learning goal orientation, self-leadership, and other psychological constructs.
Stasielowicz (2019)	The relationship between goal orientation and performance adaption.	Meta-analysis	28 independent samples (N=4,466) Quantitative	Goal orientation is found to be related to subjective performance adaptation rating but not objective scoring. Indicating methodological differences could explain mixed findings in research. This could also indicate that goal orientation is not a distal antecedent of performance adaption.
Stasielowicz (2020)	The relationship between cognitive ability and performance adaption.	Meta-analysis	133 correlations (N=37,963) Quantitative	Cognitive ability was positively related to performance adaption (r=.21), and this was stronger for objective performance scores than subjective performance. Implications for selection are that cognitive ability is a stronger predictor of performance adaption than personality factors.

Review grouping	Change constructs	Method	Studies	Findings
Park & Park (2020)	Clarify constructs related to employees' ability to adapt to change – adaptive performance, proactivity, resilience, role flexibility, learning agility, and workforce agility.	Narrative review	Numbers not provided	Identify three groups of characteristics in the literature related to each concept. These are awareness being either self-initiated or reactive; process being perseverance and overcoming difficulties and outcomes which were grouped as performance-focused, learning emphasized, or holistic.
Outcomes- Employee behavior - OCB-Change				
Chiaburu et al., (2013)	OCB-CH – proactive work behaviors aimed at bringing about change in the internal organization.	Meta-analysis	131 studies Quantitative.	OCB-CH positively related to social support (effect size = .3). The source of support did not make a significant difference.
Marinova et al., (2015)	Change-oriented behavior components: taking charge, personal initiative, creative performance, innovative performance, voice, and proactive work behavior.	Meta-analysis	106 studies Quantitative	Agentic traits and proactive personality are positively correlated to change-oriented behavior. Proactive personality traits positive and significant predictor of change-related behaviors (ρ=.46, k=10, N=3442) overall positivity (ρ=.38, k=55, N=13,910). Enriched job characteristics contribute positively to change-oriented behavior, but un-enriched job characteristics do not consistently reduce change-oriented behavior. Work engagement is a potential mediator between personality and job characteristics and change-related behaviors.

Review grouping	Change constructs	Method	Studies	Findings
Outcomes - Employee consequences - Health and well-being				
Bambra et al. (2007)	Task-restructuring interventions included increasing task variety, team-working and autonomous work groups, including lean production and just in time.	Systematic review.	19 experimental and quasi-experimental studies. Quantitative.	Task variety increase had no significant effect. In most studies, team working improved psychosocial conditions but not for all workers—autonomous workgroups related to the deterioration of the psychosocial work environment and adverse health impacts. Overall, job control is an important factor, and generally, when interventions increased demands or reduced control, there was an associated worsening of health.
Egan et al., (2007a)	Change intervention, increasing employee participation, and control through reorganization.	Systematic review	18 studies experimental, and quasi-experimental studies Quantitative.	Interventions that successfully improve employees' sense of control can improve health, although they may not protect themselves from poor working conditions.
Egan et al., (2007b)	The effects of privatization of industries and utilities on the health of people and the public. Injury to staff or customers.	Systematic review	11 studies Quantitative	No robust evidence of a link between privatization and increase rates of injury

Review grouping	Change constructs	Method	Studies	Findings
Qunilan & Bohle (2009)	Health and safety outcomes and their relationship to restructuring with and without job loss and change to place and working.	Systematic Review.	86 studies 80 quantitative and six qualitative.	85% of studies found adverse occupational health and safety outcomes for people experiencing restructuring and job insecurity.
Bamberger et al., (2012)	Changes to procedural operations or systems. Mental health outcomes of depression, anxiety, and stress as diagnosed by a mental health professional.	Systematic review	17 studies (6 cross-sectional, 11 longitudinals) Quantitative	11 of 17 studies found organizational change was associated with elevated employee mental health problems. However, the elevated risk was less significant in the longitudinal studies. The authors warn that this is weak evidence due to the small number of studies and the high proportion of cross-sectional studies.
de Jong et al. (2016)	Restructuring processes initiated for economic or performance benefits. Outcome well-being – broad definition.	Systematic review	Thirty-nine papers from 35 studies. Quantitative	The restructuring was mainly associated with adverse well-being outcomes. Changes are mainly negative in the short- and long-term for well-being for studies with and without downsizing. This was less evident in the longitudinal studies.
Daniels et al, (2017)	Was well-being affected by deliberate attempts to improve job design? Improvement to job design interventions. Well-being, organizational performance.	Systematic review	33 studies. Quantitative	Enhanced well-being and performance were most likely to be associated with interventions that included job redesign coupled with training and job redesign coupled with system-wide changes to employment practices. Also, training workers to improve their jobs may enhance well-being.

Review grouping	Change constructs	Method	Studies	Findings
Grønstad (2017)	Relationship between organizational change and sickness absence.	Scoping review	30 studies 27 quantitative, 2, qualitative and 1 mixed method	The focus of the literature is on episodic organization-wide change and its relationship with sickness absence. Less known about continuous and mid-level change. Research focuses on strain variables. Little research on moderators and mediators beyond demographic variables
Johnson et al., (2020)	Technology driven change at work and its impact on mental health and employee well-being. Spcifically looking at changes driven by automation, advanced technology and telecommunication technology.	Narrative review	Not specified	Advances in automation positively relate to removing dissatisfaction from work tasks, improving safety, and promoting mental health practices. They negatively impact through increased demands, increased sedentary time, customer aggression, career disruptions, and undermining of social relationships. Flexible work related to communications technology positively impacts family commitment, greater control, autonomy, gradual work transitions, increased employment opportunities for people in remote areas, and reduced commuting time. The negative impact is work-home interference, social isolation, decreased visibility, and increased conflict between work and home roles.

Appendix C - Chapter 4 Supplementary materials

Table S1 *Employee Change Orientation Concepts by Source Ordered Chronologically*

		Employee Change Orientation					
Source and type of paper	Change - types and perspective	Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Coch & French (1948) Mixed Top-down Episodic	Work design and work conditions change, experimental	Resistance to change	—	—	—	—	—
Gomberg (1961) Conceptual Top-down Episodic	Work condition change; imposed changes.	Protection of job as a property right	—	—	—	—	—
Meyerson & Scully (1995) Qualitative Bottom-up Episodic and continuous	Organizational change, activism in organizations	—	—	—	—	Tempered radical	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Agócs (1997) Conceptual Bottom-up Episodic	Employment equity changes, a typology of management resistance to change	Denial of need Refusal to accept Refusal to implement Repression	—	—	—	Change advocates	—
Mishra & Spreitzer (1998) Conceptual Top-down Episodic	Cutback related and work design change 'survivor' responses	Carping critics	—	Active advocates	Faithful followers	—	Walking wounded
Coetsee (1999) Conceptual Top-down Episodic		Passive resistance Active resistance Aggressive resistance	—	Commitment	Involvement Support	—	Indifference
Feldman (2000) Qualitative Bottom-up Continuous	Work-design changes; Change of working routines	—	—	—	—	Organizational routines—repairing, expanding, or striving	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Herscovitch & Meyer (2002) Quantitative Top-down Episodic	Mergers, technology, working conditions, and people change	Passive resistance Active resistance	Compliance	Champions	Cooperation	—	—
Stensaker et al. (2002) Qualitative Top-down Continuous	Ownership, technology, expansion, and work design changes — 'Excessive change'	Sabotage Exit	—	Taking self-control	Loyalty	—	Paralysis Bend Over Here It Comes Again (BOHICA)

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Lines (2005) Conceptual Top-down Episodic	Planned change to the organization's structure, processes, or product to achieve organizational objectives	Strong attitude strength with negative attitude valence	Weak attitude strength and negative attitude valence Weak attitude strength with positive attitude valence	Strong attitude with positive attitude valence	—	—	—
Chreim (2006) Qualitative Top-down Continuous	'Major changes'—cutback-related, technology, work design, and working conditions over ten years	Avoidance opposition	Resigned compliance	Acceptance	Ambivalence	—	—
Oreg (2006) Quantitative Top-down Episodic	Measure development	Resistance to change	—	—	—	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Sonenshein (2010) Qualitative Top-down Episodic	Working conditions and growth-related change	Change resisting	—	Change championing	Change accepting	—	—
Bernerth et al. (2011) Quantitative Top-down Continuous	Measure development	—	—	—	—	—	Change fatigue
Smollan (2011) Qualitative Top-down Episodic	Significant role change, growth-related change, and cutback-related change	Active resistance Passive resistance	Apathy Ambivalence	—	—	—	—
Stensaker & Meyer (2011) Qualitative Top-down Episodic	Experienced and inexperienced changers	—	Compliance – loyal reaction	—	Acceptance – loyal reaction	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Thomas et al. (2011) Qualitative Top-down Episodic	Culture change in an organization: A study of management and middle management employees	Oppositional power resistance	—	—	Facilitative power resistance	—	—
Courpasson et al. (2012) Qualitative Top-down Continuous	Work design, significant role change, and growth-related change	—	—	—	—	Productive resisters	—
Fugate et al. (2012) Quantitative Top-down Episodic	Restructuring	—	—	Positive change orientation	—	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
McMillan & Perron (2013) Conceptual Top-down Continuous	Nursing in a hospital environment	—	—	—	—	—	Change fatigue
Aggerholm (2014) Qualitative Top-down Continuous	Cutback related, change survivor reactions (citing Mishra & Sprietzer, 1998)	Carping critics	Walking wounded (with other characteristics)	Active advocates – with Walking wounded	Faithful followers – with Walking wounded	—	Walking wounded
Huy et al. (2014) Qualitative Top-down Episodic	Radical organizational change	Implementation: Shifting legitimacy judgments and increasing resistance	Evaluation: Delegitimization and intense resistance to change	—	Formulation: Favorable legitimacy judgments and low resistance	—	—
Lapointe & Beaudry (2014) Conceptual Top-down Episodic	Technology and work design change	Deviant Dissident	Resigned	Engaged	Ambivalent	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
McCabe (2014) Qualitative Top-down Continuous	Cutback-related, work design, significant role and technology change	'Making out' – Working against corporate intentions	'Making do' – Consenting resistance	—	—	—	—
Lysova et al. (2015) Qualitative Top-down Episodic	Organizational change with lower-level implementation projects	—	Doubters	Champions Supporters	Loyal citizens	—	—
Stein et al. (2015) Qualitative Top-down Episodic	Technology and work design changes	Gaming the system Opting out	—	—	Being a good citizen Personalizing Exercising discretion	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Jansen et al. (2016) Quantitative Top-down Episodic	Work design and working conditions change; lean production	—	Doubters	Champions	—	—	—
Vakola (2016) Qualitative Top-down Episodic	Technology and work design change	Passive resistance Active resistance	Passive Support	Active support	—	—	—
Chung et al. (2017) Quantitative Top-down Continuous	Innovation-focused	—	—	—	—	—	Innovation fatigue
Vough et al. (2017) Qualitative Bottom-up Episodic	Employee-initiated work design change	—	—	—	—	Proactivity routines	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Ybema & Horvers (2017) Qualitative Top-down Episodic	Work design change	Frontstage support, backstage noncompliance	Frontstage resistance, backstage compliance	—	—	—	—
Alcadipani et al. (2018) Qualitative Top-down Episodic	Lean manufacturing domination - resistance study; ethnography	Practical resistance Ironic resistance Scornful resistance	—	—	—	—	—
Bhattacherjee et al. (2018) Qualitative Top-down Episodic	Technology and work design change; mandated change	Deviant	Reluctant	Engaged	Compliant	—	—
Fugate & Soenen (2018) Quantiative Top-down	Merger. Study of antecedents processes that explain two forms of employee	—	Compliance - support of change (based on definition)	Championing – support of change	*Compliance (if affect measured as described)*	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
	support for change						
Oreg et al. (2018) Conceptual Top-down Episodic	Model of event-based change affect	Change resistance	—	Change proactivity	Change acceptance	—	Change disengagement
Bindl (2019) Qualitative Bottom-up Episodic	Proactive change in a contact center	—	—	—	—	Proactivity-as-frustration Proactivity-as-growth	—
Desmond & Wilson (2019) Conceptual Top-down Episodic	Working conditions and work design	Defense of a property right	—	—	—	—	—
McCabe et al. (2019) Qualitative Top-down Continuous	Ownership, people, and work design changes	—	—	—	Pragmatic resistance	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Nilsen et al. (2019) Qualitative Top-down Continuous	Healthcare professionals	Passive resistance Active resistance	—	—	Support Involvement	—	Indifference-apathy
Xiao & Klarin (2019) Qualitative Top-down Episodic	Work design, organizational, direct influence from the government; subordinate actors	Avoidance work	—	—	—	—	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Chen & Reay (2020) Qualitative Top-down Episodic	Imposed work design change in a healthcare provider	Resisting identity change and mourning loss of previous work Conserving previous professional identity and avoiding the new work	—	Retrieving and modifying previous professional identity and affirming the new work	Parking professional identity and learning the new work	—	—
Schneider & Sting (2020) Qualitative Top-down Episodic	Digitalization-induced change	Traditional	—	Playful	Utilitarian Functional Anthropocentric	—	—
Gilstrap & Hart (2020) Conceptual Bottom-up Continuous	Proactivity behavior around organization routines	—	—	—	—	Prescribers Performers	—

Source and type of paper	Change - types and perspective	Employee Change Orientation					
		Defender	Half-hearted	Enthusiast	Pragmatist	Challenger	Jaded
Stensaker et al. (2020) Qualitative Top-down Continuous	Offshore oil platform operational procedure change and relocation of personnel due to a merger	—	Regressive narratives - struggle to accept change	—	Progressive narratives - accept and adapt to change	—	—
McMillan & Perron (2020) Qualitative Top-down Continuous	Nurses who had endured many years of continuous change	—	—	—	—	—	Change fatigue

Note. The construct labels in the employee change orientation categories are taken verbatim from the cited papers; details of each employee change orientation concept are provided in the following tables B-F relate; — is used to indicate an intentionally blank cell due to the absence of data.

Introduction to Tables S2-S7

The following six tables provide categorized quotes and exerts from the papers used to develop the typology. There is one table for each prototype: S2-defender; S3half-hearted; S4–enthusiast; S5-pragmatist; S6-challenger; S7-jaded. These tables are provided for transparency to our categorization approach and a resource for future researchers. Each table represents the data used in the formation of one change orientation prototype. Each line represents one type of change response described by an author; we have then separated the parts of the author's description into affect, cognitions, and behaviors related to change.

Table S2 Defender - Evidence of Employee Change Orientation Extracted from each Cited Paper

Concept and source	Defender - Negative (High and Moderate-High) and Positive (Low) Change Valence		
	Affect	Cognition	Behavior
1.Resistance to change (Coch & French, 1948)	Frustration Loss of hope	Negative attitudes to management High we-feeling, change imposed	Slow work Turnover and absenteeism Aggression
2. Protecting property rights (Gomberg, 1961)	—	"Job is a property right" (p., 121). Change is an attack on this right. Change is either removing the job or requiring more work for the same pay	Union action against the employer
3. Denial of the need for change (Agócs, 1997)	—	—	"Attacks the credibility of the change" (p. 920) "Attacks on the messenger" (p. 920)
4. Refusal to accept responsibility (Agócs, 1997)	—	—	"Refusal to accept responsibility for dealing with the change issue" (p. 920)
5. Refusal to implement (Agócs, 1997)	—	—	"Refusal to implement change that has been agreed to" (p. 920)

6. Repression (Agócs, 1997)	—	—	"Action to dismantle the change" (p. 920)
7. Carping critics – Cynical response, Destructive active (Mishra & Spreitzer, 1998)	"highly aroused and are likely to feel anger, disgust, and resentment" (p. 571)	"believe that they have the personal resources to cope with the downsizing …feel personally threatened that they can be harmed by the downsizing" (p. 571) Perception of violation of psychological contract Cynicism and moral outage	"Active and destructive in their response"; "cynical survivors' behavioral response is proactive" (p. 571) Badmouthing Retaliating Destructive voice Vandalism Sabotage
8. Aggressive resistance (Coetsee, 1999)	—	Strong negative attitude to change	"Destructive opposition reflected in destructive behavior" (p. 210) Purposeful errors and spoilage Subversion Sabotage Terrorism Destruction Killing
9. Active resistance (Coetsee, 1999)	—	Strong negative though nondestructive views and attitudes to change	"Strong but not destructive opposing behavior" (p. 210)

			"Blocking or impeding change by voicing strong opposition" (p. 210) Working to rule Slowing activities Protests Personal withdrawal Boycotts and strikes
10. Passive resistance (Coetsee, 1999)	—	"Mild to weak forms of opposition to change" (p. 210) "Negative perceptions and attitudes to change" (p. 210)	"Voicing opposing views, regressive behavior such as threats to quit or voicing other indications of rejection of change" (p. 210)
11. Active resistance (Herscovitch & Meyer, 2002)	—	—	"Demonstrating opposition in response to a change by engaging in overt behaviors that are intended to ensure that the change fails." (p. 478)
12. Passive resistance (Herscovitch & Meyer, 2002)	—	—	"Demonstrating opposition in response to a change by engaging in covert or subtle behaviors aimed at preventing the success of the change" (p. 478)
13. Exit (Stensaker et al., 2002)	—	—	Exit the organization to disrupt change Active coping, change improbable

14. Sabotage (Stensaker et al., 2002)	—	—	"Blaming the change initiative for everything that went wrong, playing down the importance of the change initiative, or even going so far as making fun of it, or punishing people who tried to implement the changes" (p. 305) Active coping, change improbable
15. Strong negative attitude to change (Lines, 2005)	—	Strongly opposed to the change Change in conflict with personal values "Overall negative evaluation of the pending change" (p. 21)	Resistance behaviors: Sabotage Whistleblowing Voicing strong opposition Ridicule of change Blocking Exit
16. Avoidance/Opposition (Chreim, 2006)	Negative	Negative "Change is viewed as inconsistent with identity" (p. 322) Inability to acquire necessary skills Changes "violate the customer service value held by the employee" (p. 324)	Not following the change – opposition Moving jobs – avoidance

17. Resistance to organizational change attitude (measure) (Oreg, 2006)	Example items: “I was afraid of the change I had a bad feeling about the change I was quite excited about the change [reverse]” (p. 101)	Example items: “I believed that the change would harm the way things are done in the organization I thought that it’s a negative thing that we were going through this change I believed that the change would benefit the organization [reverse] ” (p. 101)	Example items: “I looked for ways to prevent the change from taking place I protested against the change I complained about the change to my colleagues” (p.101)
18. Change resisting (Sonenshein, 2010)	—	Significant - negative Change as a threat to job security, status quo, or identity	“Subverting the change by reducing effort or raising objections to new practices” (p. 496)
19. Active resistance (Smollan, 2011)	Shock, anger, sadness	Concern for reputation Satisfaction with the prior system Disagree with the reasoning behind the change	“Took out personal grievances” (p. 838) “Acts of arson and theft” (p. 838) “I decided I had to get a lawyer” (p. 839)
20. Passive resistance (Smollan, 2011)	Anger, sadness	Negative perceptions and attitudes to change	“Conscious actions, such as agreeing verbally but not following through, failing to implement change, procrastinating, feigning ignorance,

			withholding information and standing by and doing nothing." (p. 829)
21. Oppositional power-resistance (Thomas et al., 2011)	—	Resulting from management being unwilling to accommodate and applying coercive tactics	Not engaging with senior management More likely to defend or oppose change
22. Carping critics (Aggerholm, 2014, citing Mishra & Spreitzer, 1998)	Anger Disgust Acrimony	"Interprets the reductions as a blatant breach in the psychological contract" (p. 478) "Cynicism and blame" (p. 478)	"Responds both proactively and destructively" (p. 478) "Challenging or slandering management" (p. 478) "Extreme cases even turn to vandalism, reprisal, or sabotage" (p. 478)
23. Evaluation: Delegitimisation and intense resistance to change (Huy et al., 2014)	Negative Disappointment Worry Fearful Anger	Loss of confidence in top managers "All credibility and vision are gone" (p. 1670)	"Delayed or refused to implement the layoff directive" (p. 1670) "Active and overt resistance" (p. 1670)
24. Deviant – resistance mindset/noncompliant (Lapointe & Beaudry, 2014)	—	Resistance mindset	Sabotage Refusal to comply Pretending to comply Bypassing the system

			Deliberate errors Creating and disseminating viruses Cyberstalking Password misuse Obtaining unauthorized files Changing unauthorized files
25. Dissident – Acceptance mindset/Noncompliant (Lapointe & Beaudry, 2014)	—	Personal interests dominate	Appear accepting but are noncompliant Abusive usage and over usage Covert
26. Making out (McCabe, 2014)	—	"Works against the grain of corporate intentions because it aims to create space and manipulate output rather than simply facilitate or improve the work regime" (p. 68)	Fiddling the system Identify ways to escape from work demands Working against corporate intentions Covert, indirect resistance
27. Opting out – nonconformity/passive resistance (Stein et al., 2015)	Fear and anger	"If you just ignore it, it will go away." (p. A3) Resentful disengagement	Passive resistance Purposeful ignoring to avoid a change Opt-out
28. Gaming the system – nonconformity/active	Anxiety and fear	Cynicism Make yourself look good	Active resistance Psychological distancing Task adaptation

resistance (Stein et al., 2015)			"Purposeful misuse or nonconformity" (p. 385) Minimize effort
29. Active resisters (Vakola, 2016)	—	"Assume that the expected risks and negative consequences of the change would outweigh the positive aspects of it" (p. 208) "Satisfaction with previous system" (p. 209) Opposition in response to change	"Engaging in overt behaviors that are intended to ensure that the change fails" (p. 203) "Refusing to cooperate Sabotaging and blocking Arguing and criticizing Manipulating Distorting facts Blaming and accusing" (p. 206)
30. Passive resisters (Vakola, 2016)	—	"Expected that the risks of change would outweigh its benefit" (p. 211) "Satisfaction with the previous systems" (p. 212) No other alternative to escape change	"Demonstrating opposition in response to change by engaging in covert or subtle behaviors aimed at preventing the success of the change." (p. 203): "Showing inertia Saying yes but making no effort Feigning ignorance Finding "diplomatic" ways to escape change Withholding support or information Hiding" (p. 206)

31. Front-stage support, backstage resistance (Ybema & Horvers, 2017)	Dispirited Skeptical Disgruntled	"Changes did 'not make any sense at all', delivered 'no results', did 'not make a difference,' or would be reversed shortly afterwards" (p. 1244) Objected to changes Thought their contributions would not be welcomed	"Frontstage, change gets support because open protest is seen as futile and risky. Backstage, change efforts are smothered with reluctance, resignation, ridicule, critique, indifference and inaction" (p. 1243) Given up sharing opinions
32. Practical resistance (Alcadipani et al., 2018)	Annoyed	Protecting rights – "lean as sociotechnical domination" (p. 1465)	"Paying lip service to practice, working to rule, micro-level protests" (p. 1465) Direct; overt or covert actions
33. Ironic resistance (Alcadipani et al., 2018)	Anger and frustration	"Lean as ideological" (p. 1465) Protecting the quality and their expertise	"Ironic /critical; deconstructing contradictions; discursive irony (jokes); situational irony (illustrating policy inconsistencies through cultural media)" (p. 1465)
34. Resistance through scorn (Alcadipani et al., 2018)	Anger, indignation	Contempt for management "Lean as a fantasy" (p. 1466) Management disconnected from workers	"Tactics of contempt, derision and disdain; directing scorn and mockery at the actions of Lean's proponents; personalized attacks on subjects supposed to know'" (p. 1466)

35. Deviant (Bhattacherjee et al., 2018)	—	"IT believed to be an affront/challenge to work and autonomy; desire to disown IT" (p. 398)	"Disruptive use; nonuse or use of 'proxies'; use of workarounds; voices opposition to IT; dissuades IT use among peers; employs delaying tactics; undermines or sabotages implementation" (p. 398)
36. Change resistance – negative valence with high activation (Oreg et al., 2018)	Stressed Angry Upset Lower well-being Unpleasant, activated emotions	Negative attitude to change	Negative behaviors toward change Exit Voice Aggression
37. Defense of property right (Desmond & Wilson, 2019)	—	Need to protect against an unjust change Change could be more work for less pay Change is unjust and imposed	Reduced output Aggression
38. Active resistance (Nilsen et al., 2019)	—	—	"Actively removing themselves from having to be involved in the changes in question" (p. 7) Avoidance

39. Passive resistance (Nilsen et al., 2019)	Discontent	“thoughts about quitting the job in response to changes’ (p. 8)	Complaints about changes Reduced work effort
40. Avoidance work of subordinate actors (Xiao & Klarin, 2019)	—	“Problematizing the external pressure” (p. 6)	“Delay of compliance” (p. 6) “Concealing actual maintenance behind an apparent change” (p. 6) Avoidance work
42. Resisting and mourning (Chen & Reay, 2020)	Worry Dislike Unhappy	“Losing control of the work process” (p. 11) “Worrying about clients not getting a holistic service” (p. 11) “Worrying about themselves and others not doing a good job” (p. 11) Resisting identity change and mourning loss of previous work	“Complaining about new work” (p. 10) “Expressing concern about quality of service” (p. 10)
43. Conserving and avoiding (Chen & Reay, 2020)	—	“continuing to identify with previous work” (p. 10) Conserving professional identity	“Engaging in workarounds to continue previous tasks” (p. 10) Avoiding the new work
44. Traditional (Schneider & Sting, 2020)	Negative Disappointed Reduced enjoyment in the job	Loss of craftmanship Automation leads to loss of individualism Question the need to automate	—

	Clinging to the long-established methods and skepticism toward the new	

Note. All text is paraphrased or directly quoted from the papers listed in the left-hand column; — is used to indicate an intentionally blank cell due to the absence of data.

Table S3 Half-hearted - Evidence of Employee Change Orientation Extracted from each Cited Paper

Concept and source	Half-hearted – Negative (Moderate-High) and Positive (Moderate-Low) Change Valence		
	Affect	Cognition	Behavior
1. Compliance (measure) (Herscovitch & Meyer, 2002)	—	Low affective and normative commitment Minimum support for a change	"Demonstrating minimum support for a change by going along with the change, but doing so reluctantly" (p. 478) "I comply with my organization's directives regarding the change" (p. 478) "I accept role changes" (p. 478)
2. Weak attitude strength with negative attitude valence (Lines, 2005)	—	Low personal relevance of change Cynicism	Compliance Foot-dragging Organizational silence
3. Weak attitude with positive valence (Lines, 2005)	—	Low perceived relevance of change Change not important	Compliance Lip service Organizational silence
4. Resigned compliance (Chreim, 2006)	Negative	Negative "Sense of inevitability of the change" (p. 323)	Compliance with change – positive

		"Sense one had to go along with the change "(p. 323) Imposed compliance	
5. Apathy (Smollan, 2011)	Sad Disempowered Disenfranchised	"Don't think that the changes made were the right changes" (p. 389) "The things that I identified strongly with and did very well were taken away and not by my choice" (p.389)	"Acted as professionally as I could all the way" (p. 389) Not expressing dissatisfaction Carried on working with the change Positive behavioral response of continuing to work in compliance with the change
6. Ambivalence (Smollan, 2011)	Anger – "furious" (p. 389) Shame	Injustice - "He had not honored the agreement that we'd had and therefore had undermined the employees" (p. 389)	Completed tasks required Lost temper Completed task in the interests of staff, not management
7. Compliance- Loyal response (Stensaker & Meyer, 2011)	Negative affect	Negative cognition Negative process experience	Change positive behavior "distance themselves, lay low and keep quiet" (p. 119)
8. Walking wounded characteristics	Anxiety Fear	Helplessness with other more active dialogue	Withdrawal

(associated with other states from Mishra and Spreitzer, 1998) (Aggerholm, 2014)	Worries	"However, Philip discursively revealed a sense of helplessness and despondency by stating 'there is not much I can do about that, is there?', thereby also indicating a position as walking wounded," (p. 484)	Lack of motivation and commitment Increased absenteeism
9. Resigned behaviors – resistance mindset/compliant (Lapointe & Beaudry, 2014)	Negative Annoyance Unhappiness	Negative "One feels that s/he has an obligation to use the IT and therefore uses it, at least to some degree, in compliance with IT usage policies." (p. 4623) "Powerless to act otherwise or does not dare engaging in more blatant resistance behaviors" (p. 4623)	Complying minimally with changes
10. Implementation: Shifting legitimacy judgments and increasing resistance (Huy et al., 2014)	Disappointment Anxiety Frustration Scared	Insufficient support from top managers Disrespect from top managers	"Explicit resistance to change is hardly visible . . . People just take no initiative, they follow instructions to the letter, they are not real partners to change, they express no objection because it is taboo in this new culture." (p. 1668) Foot dragging "When people don't agree with a directive, they just ignore it. It's

			faster to ignore [than to argue with the decision].” (p. 1669)
11. Making do - Consenting resistance (McCabe, 2014)	Negative	While change not liked, worked to find ways to make the work function	Consenting resistance
12. Doubters (Lysova et al., 2015)	Negative Skeptical	Uncommitted to change Low expectations for the outcome of change	Not that involved Wait and see
13. Doubters (Jansen et al., 2016, citing Lysova et al., 2015)	Negative	Low, stable change supportive perceptions over time Perceive low change momentum	—
14. Passive support (Vakola, 2016)	—	Anticipated benefits Lack of alternatives Maintaining job satisfaction Cost of reactions	Minimum or average effort to support change and carry out requested action reluctantly “Submissively collaborating Showing reluctance but following the change Delaying in offering help Adopting a reactive rather than a proactive attitude) Not volunteering in tasks related to their expertise” (p. 206)

15. Front-stage resistance, backstage compliance (Ybema & Horvers, 2017)	—	"Illegitimate changes that affected their daily work," (p. 1244)	"Open protest and subversive behavior are corrective efforts to keep management from implementing unnecessary change. Backstage, employees are fully committed" (p.1243) "Public display of resistance was frequently mixed with compliance and commitment" (p.1244)
16. Reluctant (Bhattacherjee et al., 2018)	Fear of IT Negative Frustration	Reservations See it as a distraction from work Low expectations Change is mandated, and there is no option not to comply – an absence of control	"Uses IT only to 'meet quotas' or comply with mandates; occasional disengagement from IT use and training; tendency to fall back to old ways of work" (p. 398)
17. Compliance – support for change (measure) (Fugate & Soenen, 2018)	Unenthusiastic	Passive acceptance of change related to challenge appraisal of change but not threat appraisal	Following instructions

18. Regressive narratives and struggle to accept change (Stensaker et al., 2020)	Unhappy	Romanticize the past Change imposed “we don’t have any choice” (p. 17) Too risky to not implement change. Change has led to their expertise being devalued and underrepresented	Reluctant implementation due to safety reasons Foot dragging

Note. All text is paraphrased or directly quoted from the papers listed in the left-hand column; — is used to indicate an intentionally blank cell due to the absence of data.

Table S4 Enthusiast - Evidence of Employee Change Orientation Extracted from each Cited Paper

Concept and source	Enthusiast –Positive(High) and Negative(Low) Change Valence		
	Affect	Cognition	Behavior
1. Active advocates – active constructive response (Mishra & Spreitzer, 1998)	Hope Excitement Optimism	"Sense of ownership in helping to enhance the performance of the organization" (p. 571) "Believe they have the resources to cope with and do not feel threatened by the downsizing" (p. 571)	Solving problems Taking the initiative Find ways to fulfill the objectives of the change
2. Commitment (Coetsee, 1999)	Longer-term enthusiasm	Identification and internalization of goals Being passionately attached- "being part of" (p.218) Ownership	—
3. Champions (Herscovitch & Meyer, 2002)	—	High Affective and normative commitment to change High energy	"Behaviors require considerable personal sacrifice or intended to promote the value of the change to others inside or outside the organization" (p. 476).
4. Taking self-control – active coping/change	—	"Embraced the change, and took control of the situation" (p. 305) Ownership of change	Active initiation to push implementation further

Concept and source	Enthusiast –Positive(High) and Negative(Low) Change Valence		
	Affect	Cognition	Behavior
probable (Stensaker et al., 2002)			
5. Strong attitude with positive valence (Lines, 2005)	—	Change is important High personal relevance	Organizational citizenship, taking charge, pro-change behaviors Persistence, focus, and effort
6. Acceptance (Chreim, 2006)	Positive Enthusiasm Enjoyment	Positive “Framing change as an “opportunity”: Compatible with personal goals Enjoyment of variety and search for personal growth Organizational prosperity and success” (p.322)	Positive implementation
7. Championing (Sonenshein, 2010)	Excitement	Change has a significant positive meaning	Promoting change to others Finding solutions to make the change successful

Concept and source	Enthusiast –Positive(High) and Negative(Low) Change Valence		
	Affect	Cognition	Behavior
8. Positive change orientation (measure) (Fugate et al., 2012)	—	High change self-efficacy Fugate et al., (2012), citing Wanberg & Bana (2000) item "Wherever the changes take me, I am sure I can handle it." (p.900) Positive attitudes to change Fugate et al., (2012) citing the Miller, Johnson, and Grau (1994) openness toward change scale "I feel that the changes generally have positive implications." (p. 900) Perceived control of changes asked how much control they thought they had over change	—
9. Active advocates (Aggerholm, 2014, citing from Mishra & Spreitzer, 1998)	Enthusiastic Hopeful	"Excess of personal resources to handle the reductions, shows optimism as to the organizational consequences of the workforce reductions, and does not feel threatened in his or her position." (p. 477)	Solving problems Taking the initiative Finding ways to achieve change objectives

Concept and source	Enthusiast –Positive(High) and Negative(Low) Change Valence		
	Affect	Cognition	Behavior
10. Engaged – Acceptance mindset, compliant (Lapointe & Beaudry, 2014)	Positive	Acceptance mindset "Perceive the IT as easy to use and useful" (p. 4623) Behavioral control High self-efficacy Experience flow Playfulness Positive attitude to IT	Compliant usage
11. Supporters (Lysova et al., 2015)	Positive Good Hopeful	"Change is good and necessary" (p. 45)	"Investing maximum initiative, effort, and energy into implementing and promoting the change initiative" (p. 44)
12. Champions (Lysova et al., 2015)	Very positive Enthusiasm	"Change was necessary to augment organizational performance and that it 'made sense' from a strategic perspective" (p. 44) "Could make a positive contribution to the change initiative" (p. 47)	"Highly supportive of the change process" (p. 44) "Walking the talk" (p.47)
13. Champions (Jansen et al., 2016, citing Lysova et al., 2015)	—	Stable and high perceptions of change over time: "maintain consistent support for a change from inception to completion" (p. 677)	—

Concept and source	Enthusiast –Positive(High) and Negative(Low) Change Valence		
	Affect	Cognition	Behavior
14. Active support (Vakola, 2016)	—	Anticipated benefits Cost of reactions Lack of alternatives Supervisory support Open communication	"Going above and beyond what is formally required to ensure the success of the change and promoting the change to others." (p. 203) "Sharing information and knowledge Persuading others to support change Taking initiatives Offering help Offering solutions Promoting the idea of change Showing enthusiasm Implementing suggested changes in a timely manner Increased effort Making sacrifices" (p. 206)
15. Engaged (Bhattacherjee et al., 2018)	Passionate Enthusiastic	Sense of ownership Want to discover new features	Uses beyond requirements Experiments Optimizes

Concept and source	Enthusiast –Positive(High) and Negative(Low) Change Valence		
	Affect	Cognition	Behavior
16. Championing-support for change (measure) (Fugate & Soenen, 2018)	Excitement Enthusiasm	More active positive reaction Predicted by challenge appraisals.	Selling change to others Independent problem solving
17. Change proactivity (Oreg et al., 2018)	Excited Elated Enthusiastic	Positive attitudes in response to change Higher well-being	Positive behaviors Constructive Supportive Proactive behaviors
18. Retrieving, modifying & affirming (Chen & Reay, 2020)	Enthusiastic Positive Proud Enjoy Happy Satisfied	"Recognizing the value of the new work" (p. 10) "Seeing themselves in new ways" (p. 10)	Positive talk about change New arrangements fully-implemented and enhanced to improve delivery
19. Playful (Schneider & Sting, 2020)	Excitement Positive Curiosity Enthusiasm	"Desire to use forward-looking technologies at work, which they assume to make their work more fun or more attractive in general" (p. 30) Technology obsession	—

Note. All text is paraphrased or directly quoted from the papers listed in the left-hand column; — is used to indicate an intentionally blank cell due to the absence of data.

Table S5

Pragmatist - Evidence of Employee Change Orientation Extracted from each Cited Paper

Concept and source	Pragmatist – Positive (Moderate-High) and Negative (Moderate-Low) Change Valence		
	Affect	Cognition	Behavior
1. Faithful followers – passive, constructive (Mishra & Spreitzer, 1998)	Calm Relief	Committed Obliging "Believe that the downsizing is basically benign and are willing to go along with what is expected of them, because doing so is not expected to lead to harm" (p. 570)	"Following orders obediently" (p. 571) "stick to familiar ways of doing their work." (p. 571)
2. Involvement (Coetsee, 1999)	—	"Taking part in—to do" (p. 218) Taking responsibility Willingness to cooperate	Participation "Using energy, skills and abilities" (p. 218)
3. Support (Coetsee, 1999)	—	Positive attitude toward change "prepared to throw your weight behind it" (p. 211)	May implement the change
4. Cooperation (measure) (Herscovitch & Meyer, 2002)	—	High normative commitment	"Going along with the spirit of change and require modest sacrifices" (p. 476)

5. Loyalty-passive/change probable (Stensaker et al., 2002)	—	—	Implemented the change initiative Followed orders Made suggestions “Able to perform their normal job requirements as well as the work associated with the change itself” (p. 305)
6. Ambivalence (Chreim, 2006)	Positive about the move to a new office Concerned about the effects on customers	“Ambiguity accounts were provided: Contradictions between goals of the individual and other stakeholders” (p. 322) “Simultaneous identification and dis-identification with the change” (p. 322)	Moving to a new office and enhancing the customer experience – compliance with the change.
7. Change accepting (Sonenshein, 2010)	Insignificant or significant positive - Happy	Stability narrative. “Jobs remain the same” (p.498) therefore not an imposition to change Will be able to adjust to change	Making a necessary change as part of their normal job
8. Acceptance – loyal reaction (Stensaker & Meyer, 2011)	Positive emotions	Positive cognitions “Viewing change as an external condition and focusing on business as usual” (p.118)	Implementing change

		"Not only reduce uncertainty by looking for similarities across change process, but also find ways to maintain or take control" (p.411) "Develop capabilities on how to upgrade their professional competencies" (p.411)	
9. Facilitative power-resistance (Thomas et al., 2011)	—	Ready and willing to change but wanting accommodation or refinement from management or change agent It relies on a management counteroffer to stay in this state.	"Counteroffers" (p.35) from employee Communication by building, challenging, or reiterating the request
10. Faithful followers (Aggerholm, 2014, citing Mishra & Spreitzer, 1998))	Calm Engaged Loyal	"Does not perceive the reductions as threatening, and is therefore willing to accept the situation and to do what is expected and demanded by management" (p. 477)	"Constructive but at the same time passive as the individual loyally complies with the managerially defined goals and strategies" (p. 477)
11. Formulation: Favorable legitimacy judgements and low resistance (Huy et al., 2014)	Positive Neutral Excitement Hope Calm Resignation	Change unavoidable New top managers not tied to the old regime and had good expiring, therefore legitimate change agents. Agreed in need to improve financial performance	Positive talk about change No noticeable resistance

12. Ambivalence (Lapointe & Beaudry, 2014)	Conflicting emotions: excited and afraid	"simultaneous experience of both acceptance and resistance in a person's mind" (p. 4622) Seeing the need for change and finding it difficult to accept	Compliance as a milder form of engaged or resigned response "Delegating usage of the new IT to an assistant" (p. 4624) Complaining, pretending to comply, minimal usage This is a catch-all concept, with these exemplar behaviors listed for transparency
13. Loyal citizens (Lysova et al., 2015)	Neutral	Commitment to the organization and job leads them to get on with the change The most important focus is getting their job done "Positive about the change project as an opportunity for employee participation in organizational life, they were less positive about its potential to impact on organizational performance" (p.47)	Go along with the change initiative as part of their job "I always go with the flow. I think you have to go, to change together with the organization" (p. 46) "I see my commitment also in just working and not grumbling." (p.47)
14. Exercising discretion (Stein et al., 2015)	Frustration Pleased	"Vacillating between negative approach and positive-approach strategy" (p. 382) "It's kind of like your parents making you eat vegetables. It forces you to sit there and do this stuff." (p. 382)"	Adaptation behavior Venting Seeking support

15. Being a good citizen (Stein et al., 2015)	Good Neutral	Part of the job, benefits of uniformity	"Supportive use pattern that is characterized by a high degree of conformance to IT terms of use… Somewhat passive as users demonstrate little initiative to enhance the system; rather users are geared towards 'doing what they are told'" (p. 383)
16. Personalizing (Stein et al., 2015)	Vacillating between uncomfortable, concern, enthusiasm, and interest	Need to maintain control personally but also meet the expectations of management Tech as an opportunity	Focus on maintaining control while delivering the expectations of management Developing their noncompliant way of using the system
17. Compliant (Bhattacherjee et al., 2018)	"Generally satisfied with their use, but may sometimes experience frustration with their inability to get the system to do what they want it to do" (p. 399)	Neutral IT is a necessity Sees it as a necessity with positive and negatives	"Limited in their use of the system" (p. 399) "Use the system for their work, but their use is mechanistic, standardized, structured, and repetitive." (p. 399) Avoid risks

18. Change acceptance (Oreg et al., 2018)	Calm Relaxed Content Higher well-being	Positive attitudes: Change has high goal congruence, low goal relevance, and low perceived coping potential	Compliance Limited constructive feedback to improve or modify a change
19. Pragmatic resistance (McCabe et al., 2019)	—	Responses to irrational and disordered implementation of change. “Prioritization of ‘real work’” (p. 15) “Working around the problems” to implement change (p. 19)	“Multiple, informal, unorganized, non-confrontational subversion of guidelines” (p. 19)
20. Involvement (Nilsen et al., 2019)	Relaxed Positive	Acceptance of change Willingness to participate Only related to bottom-up change “initiated by (themselves)” (p. 4)	Implement the change
21. Support (Nilsen et al., 2019)	—	“Changes that they viewed as well-founded because they could see the necessity or utility of the changes.” (p.4) “Support was also expressed by the health care professionals for changes that they considered well communicated and predictable, which allowed them to prepare.” (p. 4)	Will implement the change
22. Parking professional identity and learning the	Comfortable	“Setting aside concerns about one’s professional identity” (p. 10)	Ongoing training and practice

new work (Chen & Reay, 2020)		"Carrying out the new work in a creative way" (p.10) Compelled to adopt change or leave the organization Just have to get on with it	Reestablished relationships with colleagues Adapting tasks to improve client experience Seeking help from colleagues
23. Utilitarian (Schneider & Sting, 2020)	Neutral	"Informants weigh their individual benefits against costs that they expect to incur from the introduction of … technology, while considering the transactional relationship between themselves as employees and the firm as their employer." (p. 21)	—
24. Functional (Schneider & Sting, 2020)	Neutral	"Informants apply a functional perspective … In so doing, informants' perceptions … are focused on practical applications, and can be characterized by a means-end orientation." (p. 23) Application orientation with technical and practical consideration most important	—
25. Anthropocentric (Schneider & Sting, 2020)	Fear of replacement Positive benefits for employees	"Informants applying this frame, on the one hand, recognize … as an anthropogenic system, which is essentially human-made, i.e., based on	—

		human actions and decisions regarding, for instance, development and implementation." (p. 25) Emphasizes the human-made nature of technology should be an aid to the human worker Concerned about dehumanizing	
26. Progressive narratives allowing them to accept and adapt to change (Stensaker et al., 2020)	Calm Balanced	"Employees complying yet struggling to accept change" (p. 12) "Progressive and future oriented narratives" (p. 19) Balance of negative (reduced pay and benefits) with positives (lifestyle benefits, learning)	Accepted onshore jobs with regular hours and less pay Continued adaption and learning activities

Note. All text is paraphrased or directly quoted from the papers listed in the left-hand column; — is used to indicate an intentionally blank cell due to the absence of data.

Table S6

Challenger - Evidence of Employee Change Orientation Extracted from each Cited Paper

Concept and source	Challenger – Positive (High) and Negative (High) Change Valence		
	Affect	Cognition	Behavior
1. Tempered radical (Meyerson & Scully, 1995)	"Simultaneously hot- and cool-headed" (p. 587) Angered, loneliness, self-doubt Encouraged by others Feel authentic	Incongruence in personal versus organizational beliefs Tension between status quo and alternatives Seek moderation	"Work for change from within organizations" (p. 589) Tempered radicalism May critique radical change and the status quo
2. Change advocates – employment equity change agents (Agócs, 1997)	—	Working to end systemic discrimination in employment Employed to do this role	"Create allies; make a case for change; make effective use of resources; mobilize politically; build parallel organizations; refusal to cooperate" (p. 929)
3. Repairing, expanding, or striving - Organizational routines (Feldman, 2000)	—	Proactive actions can be taken to improve existing routines Employees felt they had the autonomy to act with discretion to improve continually Change encouraged by management	Repairing Expanding Striving
4. Productive resisters (Courpasson et al., 2012)	—	"Its goal is to foster the development of alternative managerial practices that are	Use resistance behaviors to gain a voice and demonstrate the power

		likely to benefit the organization as a whole" (p. 801)	
5. Proactivity routines (Vough et al., 2017)	—	Ownership of issues and decided to make improvements Have to go about changing the right way; a socially constructed and accepted process by which employees could initiate changes in their work processes	Future-focused Taking control and aiming for change Self-initiation
6. Proactivity-as-frustration (Bindl, 2019)	Initiating: "annoyed, angry, frustrated or distressed, in connection with identifying that a work situation did not function in desirable ways" (p. 524) Implementing: nervous, anxiety Monitoring implementation: dependent on feedback; disappointment when lack of feedback Reflection: contented, satisfied if change successful	Dissatisfaction with the current situation "decided to act to improve the situation" (p. 624) Risky action to implement change "perceived impact of one's efforts was often low" (p. 625)	"articulating their concerns and suggestions to management" (p. 624) Implementing change Monitoring
7. Proactivity-as-growth (Bindl, 2019)	Initiating: "anger in the context of identifying initial, dysfunctional work situations" (p. 628)	"Decided to take action on the work issue by bringing about change to the work situation themselves, rather than voicing ideas and suggestions for others to change the situation" (p. 628)	"Starting to implement changes' (p.628) Monitoring

	Implementing: nervousness about extra workload; *excited* by the novelty; *enjoyment; comfortable* with implementation Monitoring: Excited and happy Reflection: Happiness and pride	"Deviating from one's routine characterized the novelty" (p. 629) "Initiative would have a significant influence on his department" (p.629) Likely to engage in future proactivity Risk of increased workload due to change, although overall risk low	
8. Performer (Gilstrap & Hart, 2020)	—	Influenced by prescriber's explanation of how the task ought to be performed	"Introduce change to a routine through proactive behavior… to the performative aspects of the job role…. not only for themselves but also others." (p. 121)
9. Prescribers (Gilstrap & Hart, 2020)	—	They anticipate how a routine ought to be modified based on a perception of future circumstances	"Introduce changes to routines based on their perceptions of what might be needed and how it might be improved." (p.121)

Note. All text is paraphrased or directly quoted from the papers listed in the left-hand column; — is used to indicate an intentionally blank cell due to the absence of data.

Table S7

Jaded - Evidence of Employee Change Orientation Extracted from each Cited Paper

Concept and source	Jaded – Negative (Low-Moderate) and Positive (Low) Change Valence		
	Affect	Cognition	Behavior
1. Walking wounded (Mishra & Spreitzer, 1998)	Worry Fear Anxiety Depression	"Downsizing as potentially harmful and believe that they have few resources to cope" (p. 570) Helplessness Weakness "A sense of being out of control" (p. 570)	Withdrawing Procrastinating Increased absenteeism
2. Indifference or apathy (Coetsee, 1999)	"Lack of positive or negative emotion" (p. 209) Indifference	No demonstrated interest, apathy	Passive resignation, only doing what is ordered
3. Paralysis – change improbable, passive coping (Stensaker et al., 2002)	Frustration	Too much to cope with Overloaded by change	People unable to carry out changes or even routine tasks "Not a result of people being unwilling to change, rather they were unable to carry out the changes…. unable to carry out even simple and routine tasks that they had previously managed." (p. 304)

4. Bend over here it comes again (BOHICA) (Stensaker et al., 2002)	Not entirely negative Indifference “You don’t give a damn” (p. 304) Change weariness	Low expectations of change “BOHICA is a strategy based on learning by experience” (p. 304)	Distancing from change Wait and see “Bend over and wait until this wind of change has blown over” (p. 303) “After a while you do not give a damn. I used to be involved, but nothing came out of it… The third time, I told them that I don’t want to take part anymore.” (p. 304) “Changes have a small chance of being implemented, since employees are somewhat indifferent to the changes, people did concentrate on their daily, operationally-oriented tasks.” (p.304)
5. Change fatigue at xxx (measure) (Bernerth et al., 2011)	Items form the change fatigue measure: “I am tired of all the changes in this company The amount of change that takes place at xxx is overwhelming” (p. 327)	“A perception that too much change is taking place” (p. 322) Example items: “Too many change initiatives are introduced at xxx. It feels like we are always being asking to change something around here. I would like to see a period of stability before we change anything else in this company.” (p. 327)	—

6. Walking wounded (Aggerholm, 2014, citing Mishra & Spreitzer, 1998)	Despondency Inferiority Anxiety Fear Uncertainty Frustration	"Interprets the reductions as a potential threat to his or her own job situation" (p. 477) "Revealed a sense of helplessness and despondency by stating "there is not much I can do about that, is there?" (p. 484) Lack of control	"Behaves destructively and passively" (p. 477) Withdrawal Increased absenteeism Focus on aspects outside of work
7. Change fatigue (McMillan & Perron, 2013)	Fatigue Emotional exhaustion	"The overwhelming feelings of stress, exhaustion, and burnout associated with rapid and continuous change in the workplace" (p. 26)	—
8. Innovation fatigue (measure) (Chung et al., 2017)	Emotional exhaustion related to innovation- measure based on Maslach Burnout Inventory (Maslach & Jackson, 1981) Example items: "I feel emotionally drained from my work related to innovations" I feel burned out from my innovation-related work I feel that I am at the end of my tether while using or implementing innovations." (p. 1136)	Exhaustion of emotional and cognitive resources of an employee that disrupts his or her further engagement in subsequent innovations" (p. 38) Example items: "No matter how much energy I put into innovation implementation, I feel that I have no control over the outcome I am unable to solve most problems that are related to innovations" (p. 1136)	Avoidance of anything related to innovation Example items: "I do not try any new tasks related to an innovation if I have failed in similar tasks in the past innovations My behavior toward innovations does not influence their success" (p. 1136)
9. Change disengagement –	Despair Sad	Negative Change disengagement	Making errors Withdrawal

negative valence/low activation (Oreg et al., 2018)		Helplessness Lower well-being	Absence
10. Indifference- apathy, physical, and emotional (Nilsen et al., 2019)	"Exhaustion and weariness" (p. 6) Anger Frustration Stress	"Well, you let go of all engagement, you let go of all reflection, you let go really of everything that has not to do with my own person. And at the same time, you build a shell around yourself." [NA11]" (p. 5) "I think this 'change fatigue syndrome' has spread like wildfire. It concerns people who consciously or unconsciously are not working in accordance with their values." [P9]" (p. 5)	"Passivity as well as being 'resigned and tired' and not trying to 'bother' with the changes" (p.6)
11. Change fatigue (McMillan & Perron, 2020)	"You become numb to the changes that are occurring at the institution" (p.6) Exhaustion Tired Numb Burnout Resentment Unhappy	Powerless and disempowered "We have been ignored [in the decision-making process] because we [nurses] are low down on the totem pole" (p. 5) "You're like 'oh, well, it's just another change, let's just keep going because we have to get our jobs done" (p.6) Apathy	Self-sacrifice of own wellbeing, lack of self-care and not questioning change "People stopped caring… 'whatever', rolled their eyes, 'oh, another change" (p.5) "Nurses remaining focused on their patient care delivery served as a protective mechanism against the negative emotions associated with rapid and continuous change." (p.6) "You just are unhappy and you feel anxious and you don't feel like you want to come to work" (p.7)

	“You’ve become a robot” (p.6)

Note. All text is paraphrased or directly quoted from the papers listed in the left-hand column; — is used to indicate an intentionally blank cell due to the absence of data.

Appendix D - Chapter 5 Supplementary materials

Mplus coding

Mplus coding sample for Study 1

ICM-CFA to generate factor score

```
Title: ICM_CFA changers 1st
  Data: file = US1 file_CFAPREP_MPLUS LPA prep.dat;
  Variable: names =
   Id
   be1 be2 be3 be4 be5 be6 be7
   cog1 cog2 cog3 cog4 cog5 cog6 cog7
   HAPA1 HAPA2 HAPA3 HAPA4
   LAPA1 LAPA2 LAPA3 LAPA4
   RLAUA1 RLAUA2 RLAUA3 RLAUA4
   RHAUA1 RHAUA2 RHAUA3 RHAUA4
   COAC_p1 COAC_p3 COAC_p4 COAC_D5 COAC_D6 COAC_D8
   ChFat_1 ChFat_2 ChFat_3 ChFat_4 ChFat_5 ChFat_6;

      Usevar  =   be2 be4 be5 be6 be7
   cog1 cog2 cog3 cog4 cog5 cog6 cog7
   HAPA1 HAPA2 HAPA3 HAPA4
   LAPA1 LAPA2 LAPA3 LAPA4
   RLAUA1 RLAUA2 RLAUA3 RLAUA4
   RHAUA1 RHAUA2 RHAUA3 RHAUA4
   COAC_p1 COAC_p3 COAC_p4 COAC_D5 COAC_D6 COAC_D8
   ChFat_1 ChFat_2 ChFat_3 ChFat_4 ChFat_5 ChFat_6;

      missing = all (9999);
      IDVARIABLE = Id;

  Analysis: Estimator = MLR;

  Model:
  CRREcog by cog1* cog2 cog3 cog4 cog5 cog6 cog7;
  CRREbeh by  be2* be4 be5 be6 be7;
  RHAUA by Rhaua1* Rhaua2 Rhaua3 Rhaua4;
  HAPA by hapa1* hapa2 hapa3 hapa4;
  RLAUA by Rlaua1* Rlaua2 Rlaua3 Rlaua4;
  LAPA by lapa1* lapa2 lapa3 lapa4;
  CHFAT by ChFat_1* ChFat_2 ChFat_3 ChFat_4
  ChFat_5 ChFat_6;
  COAC by COAC_p1* COAC_p3 COAC_p4 COAC_D5 COAC_D6 COAC_D8;

  CRREcog@1;
  CRREbeh@1;
  RHAUA@1;
  LAPA@1;
  HAPA@1;
  RLAUA@1;
  COAC@1;
  CHFAT@1;

SAVEDATA:
```

```
FILE IS FSCORE_1st_ LPA.dat;
FORMAT is FREE;
SAVE = FSCORES;
  Output:SAMPSTAT STANDARDIZED SVALUES STDYX tech4 residual;
```

LPA for Five profiles

```
Title: LPA 1st data collection

Data: File = FSCORE_1st_ LPA.dat;
Variable:
NAMES  = BE2 BE4 BE5  BE6 BE7
    COG1 COG2 COG3 COG4 COG5 COG6 COG7
    HAPA1 HAPA2  HAPA3  HAPA4
    LAPA1 LAPA2 LAPA3  LAPA4
    RLAUA1 RLAUA2 RLAUA3 RLAUA4
    RHAUA1 RHAUA2 RHAUA3 RHAUA4
    COAC_P1 COAC_P3 COAC_P4 COAC_D5 COAC_D6 COAC_D8
    CHFAT_1 CHFAT_2 CHFAT_3 CHFAT_4 CHFAT_5 CHFAT_6
    CRRECOG    CRRECOG_SE
    CRREBEH    CRREBEH_SE
    RHAUA    RHAUA_SE
    HAPA    HAPA_SE
    RLAUA    RLAUA_SE
    LAPA    LAPA_SE
    CHFAT    CHFAT_SE
    COAC    COAC_SE
    ID;

USEVAR = CRRECOG CRREBEH RHAUA HAPA RLAUA LAPA
        CHFAT COAC;
IDVARIABLE = ID;
  CLASSES = c(5);

ANALYSIS:
  Type = Mixture;
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 10000 500;
  STITERATIONS =1000;

  MODEL:
  %OVERALL%
CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT;
[CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT];
%c#1%
CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT;
[CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT];
%c#2%
CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT;
[CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT];
%c#3%
```

```
CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT;
[CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT];
%c#4%
CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT;
[CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT];
%c#5%
CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT;
[CRRECOG CRREBEH
HAPA LAPA RLAUA RHAUA COAC CHFAT];

OUTPUT:
sampstat standardized stdyx TECH1 TECH2 TECH4 Tech11 Tech14;
MOD(1.0)SVALUES;
```

Generate BCH weight Covariates

```
Title: Create BCH weights and covariates insame file
LPA for full sample using full model_15_Step 6_

Data: File = US1 file_FSCovariate prep.dat;
Variable:
NAMES  =   ID Hrs_wrk Tenure Industry Sector
    Firmsize Income Senority Ed_Lvl Gender
    AmtofCH
    CRREBEH
    RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG
    OCBO JOBSAT JobExh INQUIT
    Hope Helpls JISQT JISQL;

USEVAR = CRREBEH
    RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG;

IDVARIABLE = ID;

 CLASSES = c(5);

 AUXILIARY = Hrs_wrk Tenure Industry Sector
    Firmsize Income Senority Ed_Lvl Gender
    AmtofCH
    OCBO JOBSAT JobExh INQUIT
    Hope Helpls JISQT JISQL;

ANALYSIS:
  Type = Mixture;
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 2000 500;
  STITERATIONS =1000;

  MODEL:
  %OVERALL%
```

```
CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG;
[CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG];
%c#1%
CRREBEH RHAUA HAPA RLAUA LAPA
CHFAT COAC CRRECOG];

    CHFAT COAC CRRECOG;
[CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG];

%c#2%
CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG;
[CRREBEH RHAUA HAPA RLAUA LAPA

%c#3%
CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG;
[CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG];

%c#4%
CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG;
[CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG];

%c#5%
CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG;
[CRREBEH RHAUA HAPA RLAUA LAPA
    CHFAT COAC CRRECOG];

OUTPUT:
TECH1 TECH2 TECH4 TECH8;

SAVEDATA: FILE IS LPA DC1 C5_CovFS BCH.dat;
SAVE = bchweights;
!This statement makes sure that the weights of the indicators for each of the
profiles.
! The bchweights are based upon the “Classification Probabilities for the
!Most Likely Latent Class
!Membership (Column) by Latent Class (Row)”.
!These are used in the next modeling step to
!specify the profiles so that they are not affected by the
!inclusion of the covariates in the model.
```

LPA Covariates- Antecedents

```
Title: LPA for full sample using full model_15_Step 6
Data: File =  LPA DC1 C5_CovFS BCH.dat;

Variable:
NAMES  =
      CRREBEH
      RHAUA HAPA RLAUA LAPA
```

```
      CHFAT COAC CRRECOG
      Hrs_wrk Tenure Industry Sector
      Firmsize Income Senority Ed_Lvl Gender
      AmtofCH
      OCBO JOBSAT JobExh INQUIT
      Hope Helpls JISQT JISQL
    BCHW1-BCHW5 ID;

USEVAR = CRREBEH
      RHAUA HAPA RLAUA LAPA
      CHFAT COAC CRRECOG;
IDVARIABLE = ID;

 CLASSES = c(5);
AUXILIARY = HOPE(R3STEP)
Helpls(R3STEP) JISQT(R3STEP) JISQL(R3STEP);

ANALYSIS:
  Type = Mixture;
  ESTIMATOR = MLR;

OUTPUT:
sampstat CINTERVAL SVALUES RESIDUAL stdyx TECH1 TECH7;

Plot:
  type is plot3;
  series is COAC(1) CHFAT(2) RHAUA (4)RLAUA(5)
  HAPA(6) LAPA(7)CRRECOG(8) CRREBEH(9);
```

LPA Covariates- Distal outcomes

```
Title: Step3 Create BCH weights and covariates in same file
LPA for full sample using full model_15_Step 6_

Data: File =  LPA DC1 C5_CovFS BCH.dat;

Variable:

NAMES  =    CRREBEH  RHAUA    HAPA   RLAUA
    LAPA      CHFAT       COAC  CRRECOG
    HRS_WRK      TENURE INDUSTRY SECTOR  FIRMSIZE   INCOME  SENORITY
    ED_LVL    GENDER  AMTOFCH  OCBO JOBSAT  JOBEXH
    INQUIT HOPE  HELPLS  JISQT  JISQL
    BCHW1
    BCHW2
    BCHW3
    BCHW4
    BCHW5
    ID;

USEVAR =  OCBO JOBSAT JOBEXH INQUIT
 BCHW1-BCHW5 ;

IDVARIABLE = ID;
  CLASSES = c(5);
  Training = BCHW1-BCHW5(bch);

ANALYSIS:
```

```
  Type = Mixture;
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 0;

  MODEL:
  %OVERALL%
c ON OCBO JOBSAT JOBEXH INQUIT;


OUTPUT:
TECH1 TECH2 TECH4 TECH8;
```

Mplus coding sample for Study 2

ICM-CFA to generate factor score

```
Title: ICM_CFA forall in_15_Fscores
  Data: file = Mplus_Second data collection3.dat;
  Variable: names =
      Id
      Hours tenure Industry Sector Frmsize Senior Income Ed Gender
      OCB4 OCB3 OCB5 OCB6 OCB2 OCB1 OCB7 OCB8
      JSat1 JSat2R JSat3 JSat4R JSat5
      JobEx1 JobEx2 JobEx3 JobEx4
      Quit1 Quit2 Quit3 Quit4
      AmtCH
      cog1 cog6 cog4 cog7 cog3 cog2 cog5
      be3 be6 be4 be2 be7 be5 be1
      RTCbe1 RTCbe3 RTCbe2 RTCbe4 RTCbe5
      RTCcog1 RTCcog2 RTCcog3 RTCcog4 RTCcog5
      PWBI1 PWBI2 PWBI3 PWBT1 PWBT2 PWBT3 PWBO1 PWBO2 PWBO3
      Rhaua1 Rhaua2 Rhaua3 Rhaua4
      hapa1 hapa2 hapa3 hapa4
      Rlaua1 Rlaua2 Rlaua3 Rlaua4
      lapa1 lapa2 lapa3 lapa4
      COAC1 COAC3 COAC4 COAC5 COAC6
      ChFrq1 ChFrq2 ChFrq3 ChFrq4 ChFrq5 ChFrq6
      Hope1p Hope2a Hope1a Hope2p Hope3a Hope3p
      Hlplsn1R Hlplsn2 Hlplsn3 Hlplsn4 Hlplsn5R Hlplsn6
      JbInqt1 JbInqt2 JbInqt3 JbInql2R JbInql1R JbInql3R JbInql4R;

      Usevar  =
      cog1 cog6 cog4 cog7 cog3 cog2 cog5 !CRRE cognitive
      be4 be2 be7 be5 be1 !CRRE behviour_solution from first DC
      RTCbe3 RTCbe2 RTCbe4 RTCbe5 !Resistance to change behavior
      PWBT1 PWBT2 PWBT3 !PWB team
      PWBO1 PWBO2 PWBO3 !PWB organization
      Rhaua1 Rhaua2 Rhaua3 Rhaua4 !High activetion Unpleasent affect Reverse
coded
      hapa1 hapa2 hapa3 hapa4 !high activation pleasent affect
      Rlaua1 Rlaua2 Rlaua3 Rlaua4 !Low activation unpleastent affect Reverse
coded
      lapa1 lapa2 lapa3 lapa4 !low activation pleasent affect
      COAC1 COAC3 COAC4 COAC5 COAC6 ! coac
      ChFrq1 ChFrq2 ChFrq3 ChFrq4 ChFrq5 ChFrq6; !change fatigue
```

```
      missing = all (9999);
      IDVARIABLE = Id;

  Analysis: Estimator = MLR;

  Model:
  CRREcog by cog1* cog6 cog4 cog7 cog3 cog2 cog5;
  CRREbeh by be4* be2 be7 be5 be1;
  RTCbeh by RTCbe3* RTCbe2 RTCbe4 RTCbe5;
  PWBTO by PWBT1* PWBT2 PWBT3 PWBO1 PWBO2 PWBO3;
  RHAUA by Rhaua1* Rhaua2 Rhaua3 Rhaua4;
  HAPA by hapa1* hapa2 hapa3 hapa4;
  RLAUA by Rlaua1* Rlaua2 Rlaua3 Rlaua4;
  LAPA by lapa1* lapa2 lapa3 lapa4;
  COAC by COAC1* COAC3 COAC4 COAC5 COAC6;
  CHFAT by ChFrq1* ChFrq2 ChFrq3 ChFrq4 ChFrq5 ChFrq6;

  CRREcog@1;
  CRREbeh@1;
  RTCbeh@1;
  PWBTO@1;
  RHAUA@1;
  HAPA@1;
  RLAUA@1;
  LAPA@1;
  COAC@1;
  CHFAT@1;

SAVEDATA: FILE IS DC3Fscores.dat;
FORMAT IS FREE;
SAVE = FSCORES;

 Output:SAMPSTAT STANDARDIZED SVALUES STDYX tech4 residual;
```

LPA for Six profiles

```
Title: LPA for full sample using full model_15_Step 6

Data: File = DC3FSCORESim.dat;

Variable:
NAMES  = ID CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
USEVAR = CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
IDVARIABLE = ID;

 CLASSES = c(6);

ANALYSIS:
  Type = Mixture;
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 10000 500;
  STITERATIONS =1000;
```

```
  MODEL:
  %OVERALL%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];
%c#1%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#2%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#3%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#4%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#5%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#6%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

OUTPUT:
sampstat standardized stdyx TECH1 TECH2 TECH4 Tech11 Tech 14;
MOD(1.0)SVALUES;

Plot:
    type is plot3;
    series is CRRECOG(1)CRREBEH(2)PWBTO(3) HAPA(4) LAPA(5)
    CHFAT(6) RLAUA(7) RHAUA(8) COAC(9)RTCBEH(10);
```

Generate Factor scores for Covariates

```
Title: Covariate CFA
 !
 ! Based in Morin et al 2016 to calculate cFA for LPA
Data: file = Covariate analysis_CFAItems.dat;
Variable: names =
```

```
    Id
    OCB4 OCB3 OCB5 OCB6 OCB2 OCB1 OCB7 OCB8 !Organizational citizenshio
behavior
    JS1 JS2R JS3 JS4R JS5 ! Jobsat
    JEX1 JEX2 JEX3 JEX4 ! job exhaustion
    QUIT1 QUIT2 QUIT3 QUIT4 ! Intent to Quit
    HOPE1p HOPE2a HOPE1a HOPE2p HOPE3a HOPE3b !Hope
    HLP1r HLP2 HLP3 HLP4 HLP5r HLP6 ! helplessness
    JISQT1 JISQT2 JISQT3 ! job insecurity quant
    JISQL2r JISQL1r JISQL3r JISQL4r; ! job insecurity Qual

    Usevar  =
    OCB4 OCB3 OCB5 OCB6 OCB2 OCB1 OCB7 OCB8 !Organizational citizenshio
behavior
    JS1 JS2R JS3 JS4R JS5 ! Jobsat
    JEX1 JEX2 JEX3 JEX4 ! job exhaustion
    QUIT1 QUIT2 QUIT3 QUIT4 ! Intent to Quit
    HOPE1p HOPE2a HOPE1a HOPE2p HOPE3a HOPE3b !Hope
    HLP1r HLP2 HLP3 HLP4 HLP5r HLP6 ! helplessness
    JISQT1 JISQT2 JISQT3 ! job insecurity quant
    JISQL2r JISQL1r JISQL3r JISQL4r; ! job insecurity Qual
    missing = all (9999);
    IDVARIABLE = Id;

Analysis: Estimator = MLR;
Model:
OCBO by OCB4 OCB3 OCB5 OCB6 OCB2 OCB1 OCB7 OCB8; !Organizational citizenshio
behavior
JobSat by JS1 JS2R JS3 JS4R JS5; ! Jobsat
JOBEX by  JEX1 JEX2 JEX3 JEX4; ! job exhaustion
InQuit by QUIT1 QUIT2 QUIT3 QUIT4; ! Intent to Quit
Hope by HOPE1p HOPE2a HOPE1a HOPE2p HOPE3a HOPE3b; !Hope
HLPLS by HLP1r HLP2 HLP3 HLP4 HLP5r HLP6; ! helplessness
JISQT by JISQT1 JISQT2 JISQT3; ! job insecurity quant
JISQL by JISQL2r JISQL1r JISQL3r JISQL4r; ! job insecurity Qual;

Output:SAMPSTAT STANDARDIZED SVALUES STDYX tech4 residual;
```

Creating BCH weights file

```
        Title: Create BCH weights and covariates in same file

         LPA for full sample using full model_15_Step 6_



         Data: File = DC3_FS_Covar_FS.dat;



         Variable:

         NAMES  =  ID CRRECOG COAC CRREBEH RTCBEH PWBTO

             CHFAT RHAUA HAPA RLAUA LAPA

             Hours tenure Ind Sector Fsize
```

```
    Senior Income Ed Gender
    AmtCH
    OCBOFS JSFS JOBEXFS InQuitFS
    HOPEFS HLPLSFS JISQTFS JISQLFS;

USEVAR = CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;

IDVARIABLE = ID;

 CLASSES = c(6);

 AUXILIARY = Hours tenure Ind Sector Fsize
    Senior Income Ed Gender
    AmtCH
    OCBOFS JSFS JOBEXFS InQuitFS
    HOPEFS HLPLSFS JISQTFS JISQLFS;

ANALYSIS:
  Type = Mixture;
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 2000 500;
  STITERATIONS =1000;

  MODEL:
  %OVERALL%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
```

```
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];
%c#1%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#2%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#3%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#4%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#5%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
```

```
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT

RHAUA HAPA RLAUA LAPA];


%c#6%

CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT

RHAUA HAPA RLAUA LAPA;

[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT

RHAUA HAPA RLAUA LAPA];




OUTPUT:

TECH1 TECH2 TECH4 TECH8;


SAVEDATA: FILE IS LPA C6_CovFS BCH.dat;

SAVE = bchweights;
```

LPA Covariates- Antecedents

```
Title: LPA for full sample using full model_15_Step 6
Data: File = LPA C6_CovFS BCH.dat;

Variable:
NAMES  = CRRECOG COAC CRREBEH RTCBEH PWBTO
    CHFAT RHAUA HAPA RLAUA LAPA
    Hours tenure Ind Sector Fsize
    Senior Income Ed Gender
    AmtCH
    OCBOFS JSFS JOBEXFS InQuitFS
    HOPEFS HLPLSFS JISQTFS JISQLFS
    BCHW1-BCHW6 ID;

USEVAR = CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;

IDVARIABLE = ID;

 CLASSES = c(6);
AUXILIARY = HOPEFS(R3STEP) HLPLSFS(R3STEP)
JISQTFS(R3STEP) JISQLFS(R3STEP);

ANALYSIS:
  Type = Mixture;
```

```
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 3000 100;
  STITERATIONS = 100;

  MODEL:
  %OVERALL%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];
%c#1%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#2%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#3%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#4%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#5%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];

%c#6%
CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA;
[CRRECOG COAC CRREBEH RTCBEH PWBTO CHFAT
RHAUA HAPA RLAUA LAPA];


OUTPUT:
sampstat CINTERVAL SVALUES RESIDUAL stdyx TECH1 TECH7;
```

LPA Covariate – Distal outcomes

```
Data: File = LPA C6_CovFS BCH.dat;

Variable:

NAMES  =  CRRECOG COAC CRREBEH   RTCBEH
```

```
    PWBTO CHFAT RHAUA  HAPA RLAUA LAPA
    HOURS TENURE IND SECTOR FSIZE SENIOR
    INCOME ED GENDER
    AMTCH
    OCBOFS JSFS JOBEXFSINQUITFS
    HOPEFS HLPLSFS JISQTFS JISQLFS
    BCHW1
    BCHW2
    BCHW3
    BCHW4
    BCHW5
    BCHW6
    ID;

USEVAR = OCBOFS JSFS
    JOBEXFS INQUITFS
 BCHW1-BCHW6;

IDVARIABLE = ID;

 CLASSES = c(6);

 Training = BCHW1-BCHW6(bch);

ANALYSIS:
  Type = Mixture;
  ESTIMATOR = MLR;
  Process = 4;
  Starts = 0;

  MODEL:
  %OVERALL%
c ON OCBOFS JSFS JOBEXFS INQUITFS;

OUTPUT:
TECH1 TECH2 TECH4 TECH8;
```

Appendix E – Ethical approvals, participant information sheets, and survey questions

Auckland University of Technology Ethics Committee Approval - Chapter 5 Study 1

AUT

TE WĀNANGA ARONUI O TĀMAKI MAKAU RAU

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

16 July 2019

Helena Cooper-Thomas
Faculty of Business Economics and Law

Dear Helena

Re: Ethics Application: **18/401 Employee responses to change at work**

Thank you for your request for approval of amendments to your ethics application.

The amendment to recruitment and data collection protocols using the Prolific platform is approved.

I remind you of the **Standard Conditions of Approval**.

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through http://www.aut.ac.nz/research/researchethics.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through http://www.aut.ac.nz/research/researchethics.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: http://www.aut.ac.nz/research/researchethics.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements.

For any enquiries please contact ethics@aut.ac.nz

Yours sincerely,

Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: [redacted], paulette.brazzale@aut.ac.nz; Jarrod Haar; Roy Smolan

Auckland University of Technology Ethics Committee Approval - Chapter 5 Study 2

AUT
TE WĀNANGA ARONUI O TĀMAKI MAKAU RAU

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

3 March 2021

Helena Cooper-Thomas
Faculty of Business Economics and Law

Dear Helena

Re: Ethics Application: **18/401 Employee responses to change at work**

Thank you for your request for approval of amendments to your ethics application.

The amendment to include an on-line survey of paid US participants through the Prolific platform has been approved.

I remind you of the **Standard Conditions of Approval.**

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted. When the research is undertaken outside New Zealand, you need to meet all ethical, legal, and locality obligations or requirements for those jurisdictions.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

(This is a computer generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: paulette.brazzale@aut.ac.nz; Jarrod Haar; Roy Smollan

Participant Information Sheet for Chapter 2

Date Information Sheet Produced:

12nd March 2017

Project Title

International Work-Life Balance Project

An Invitation

My name is Professor Jarrod Haar and I am interested in finding out about work and non-work factors and their influence on work-life balance. The project is surveying employees in the United States, New Zealand and Australia. The project is particularly interested in finding out about the experiences of people in organizations and the role that organizations and supervisors play in making work-life balance achievable. The project also examines aspects of you as a person as well as your perception of those around you and your experience of work and non-work. Participation in this study is voluntary.

What is the purpose of this research?

This research will contribute to understanding ways that people achieve work-life balance including organizational and supervisor factors, and the work, family and work-life balance experiences of employees. Findings from the research may also be used in conference presentations and may be published in one or more journal articles. A research student may also use some of the data for their thesis research. As we are not collecting individual identifying data (no names) no one will be able to identify you.

How was I identified and why am I being invited to participate in this research?

To be included in this research you need to be working at least 20 hours a week and be over the age of 18.

What will happen in this research?

The questionnaire will take around 15-20 minutes to complete. While the survey does not allow you to proceed if you miss a question on a particular page, you are free to discontinue the survey at any time.

What are the discomforts and risks?

This process should not pose any discomfort or risk to you. I am NOT collecting your personal name or workplace so you will never be personally identified – so you will be totally anonymous - and your anonymity will not be compromised. Overall, your responses will be added to a number of other employees across the countries and be analysed at the aggregate level only.

How will these discomforts and risks be alleviated?

The data will not be shown to anyone outside of the research team and any records will be stored at a locked file at AUT University. Again, responses are anonymous and respondents cannot be identified in any way.

What are the benefits?

This research will contribute to understanding of the ways that employees achieve work-life balance – the barriers and the benefits. It will also evaluate the role of organizational and supervisor actions.

How will my privacy be protected?

As stated above, responses are anonymous and all information pertaining to you will be kept confidential and data will be stored in a locked file at AUT. No one other than the researchers will have access to this information.

How do I agree to participate in this research?

Completing the online questionnaire will be taken as consent to participate.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Leader, Professor Jarrod Haar, jarrod.haar@aut.ac.nz, +64 9 921 9999 ext 5034

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Leader, Professor Jarrod Haar, jarrod.haar@aut.ac.nz, +64 9 921 9999 ext 5034

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows**:**

Research Leader Contact Details: Professor Jarrod Haar,

jarrod.haar@aut.ac.nz, +64 9 921 9999 ext 5034

Approved by the Auckland University of Technology Ethics Committee on 28th November 2016 final ethics approval was granted, AUTEC Reference number 16/423 International work-life balance project.

Participant Information Sheet for Chapter 5 – Study 1

Date Information Sheet Produced:

5 July 2019

Project Title

Employees responses to change at work

An Invitation

My name is Paulette Brazzale, and I am a PhD candidate, working with Professor Helena Cooper-Thomas at the Auckland University of Technology. I am interested in finding out about how employees respond and adjust to change at work, along with their experiences and perspectives on change at work. Hence, I am conducting a research project asking employees to respond to questions about their perceptions of change in their workplace. Participation in this study is voluntary.

This survey has been designed to gather information on the type of change you are currently experiencing at work, how this is affecting you, and how you are responding to this change. This process should not pose any discomfort or risk to you. You are not asked to provide your name or details of your employer, so you will never be personally identified. Responding to the questionnaire is voluntary. Questions cannot be left blank, but you can stop responding and quit at any point.

What is the purpose of this research?

This research will contribute to understanding how employees feel and think about change at work and how workplace change is affecting employees; for example, how satisfied they are with their job. Findings from the research may be used in conference presentations and journal articles. Postgraduate research students that Professor Cooper-Thomas supervises may also use the data for their research.

How was I identified and why am I being invited to participate in this research?

Prolific has identified that you may be eligible for this research and have provided this information on my behalf. Because the research is on employees, to be included in this research you need to be (1) working at least 20 hours per week, and (2) at least 18 years of age or more.

What will happen in this research?

This research has one survey the will take approximately 16-22 minutes to complete. Note that the questionnaire does not allow you to proceed if you miss a question on a page. However, you are free to discontinue the survey at any time.

Please read all questions carefully and answer as honestly as you can. Careless responding may lead us to reject your submission.

What are the discomforts and risks?

This process should not pose any discomfort or risk to you. You are not asked to provide your name or details of your workplace so you will never be personally identified. We will be combining all the responses and analyzing the data as a whole.

How will these discomforts and risks be alleviated?

The data are anonymous and will be analysed only by me and postgraduate research students under the supervision if Professor Cooper-Thomas and using data security practices such as password protected computers.

When you are asked to provide a written description of your current change at work experience, please only include details you are comfortable sharing with us.

What are the benefits?

This research will contribute to understanding the ways employees respond to change at work and the effects change has on employees' feelings about work. It will assist me in obtaining a PhD, and help other future postgraduate students working with Professor Cooper-Thomas.

A summary report on the research will be available in approximately late 2019 at Professor Helena Cooper Thomas's AUT webpage.

How will my privacy be protected?

As stated above, responses are anonymous and confidential. Data will be stored on password-protected computers. Only me, Professor Cooper Thomas and supervised postgraduate research students will have access to the data. The date will be stored securely at the Auckland University of Technology, Auckland, New Zealand for a minimum of 6 years.

How do I agree to participate in this research?

Your participation in this research is voluntary – it is your choice. Before you begin the study, you will be asked to indicate your consent or decline consent using the buttons provided.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Leader, Paulette Brazzale, paulette.brazzale@aut.ac.nz +64 9 951 9065 extn 9065.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, ethics@aut.ac.nz , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please download this Information Sheet for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Project Leader, Paulette Brazzale: paulette.brazzale@aut.ac.nz +64 9 951 9065 extn 9065 and via the Prolific page for this study.

Approved by the Auckland University of Technology Ethics Committee on final ethics approval was granted 31 October 2018 AUTEC - Reference number; 18/401 Employee responses to change at work.

Participant Information Sheet for Chapter 5 – Study 2

Date Information Sheet Produced:

15 Febuary 2021

Project Title :Employees responses to change at work

An Invitation

My name is Paulette Brazzale, and I am a PhD candidate, working with Professor Helena Cooper-Thomas at the Auckland University of Technology. I am interested in finding out about how employees respond and adjust to change at work, along with their experiences and perspectives on change at work. Hence, I am conducting a research project asking employees to respond to questions about their perceptions of change in their workplace. Participation in this study is voluntary.

This survey has been designed to gather information on the type of change you are currently experiencing at work, how this is affecting you, and how you are responding to this change. This process should not pose any discomfort or risk to you. You are not asked to provide your name or details of your employer, so you will never be personally identified. Responding to the questionnaire is voluntary, there is a payment of £1.15 to your Prolific account for completion of the full survey. Questions cannot be left blank, but you can stop responding and quit at any point.

What is the purpose of this research?

This research will contribute to understanding how employees feel and think about change at work and how workplace change is affecting employees; for example, how satisfied they are with their job. Findings from the research may be used in conference presentations and journal articles. Postgraduate research students that Professor Cooper-Thomas supervises may also use the data for their research.

How was I identified and why am I being invited to participate in this research?

Prolific has identified that you may be eligible for this research and have provided this information on my behalf. Because the research is on employees, to be included in this research you need to be (1) working at least 20 hours per week, and (2) at least 18 years of age or more.

What will happen in this research?

This research has one survey the will take approximately 8-14 minutes to complete. Note that the survey does not allow you to proceed if you miss a question on a page. However, you are free to discontinue the survey at any time.

Please read all questions carefully and answer as honestly as you can. Items to detect careless responding are included. Also, you are required to write a couple of sentences about your current experiences of change at work. Careless responding and not following survey instructions may lead us to reject your submission.

What are the discomforts and risks?

This process should not pose any discomfort or risk to you. You are not asked to provide your name or details of your workplace so you will never be personally identified. We will be combining all the responses and analyzing the data as a whole.

How will these discomforts and risks be alleviated?

The data are anonymous and will be analysed only by me and postgraduate research students under the supervision of Professor Cooper-Thomas and using data security practices such as password-protected computers.

When you are asked to provide a written description of your current change at work experience, please only include details you are comfortable sharing with us.

What are the benefits?

This research will contribute to understanding the ways employees respond to change at work and the effects change has on employees' feelings about work. It will assist me in obtaining a PhD, and help other future postgraduate students working with Professor Cooper-Thomas.

A summary report on the research will be available in approximately late 2021 at Professor Helena Cooper-Thomas's AUT webpage.

How will my privacy be protected?

As stated above, responses are anonymous and confidential. Data will be stored on password-protected computers. Only me, Professor Cooper-Thomas and her supervised postgraduate research students will have access to the data. The data will be stored securely at the Auckland University of Technology, Auckland, New Zealand for a minimum of 6 years.

How do I agree to participate in this research?

Your participation in this research is voluntary – it is your choice. Before you begin the study, you will be asked to indicate your consent or decline consent using the buttons provided.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Leader, Paulette Brazzale, paulette.brazzale@aut.ac.nz +64 9 951 9065 extn 9065.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Dr Carina Meares, ethics@aut.ac.nz , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please download this Information Sheet for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Project Leader, Paulette Brazzale: paulette.brazzale@aut.ac.nz +64 9 951 9065 extn 9065 and via the Prolific page for this study.

Approved by the Auckland University of Technology Ethics Committee, final ethics approval was granted 3 March 20218 AUTEC - Reference number; 18/401 Employee responses to change at work.

APPENDIX E – Study 1 – Survey items

Survey Flow

EmbeddedData
PROLIFIC_PIDValue will be set from Panel or URL.

Standard: Informed Consent form (1 Question)

Branch: New Branch
If
If My name is Paulette Brazzale, and I am a PhD candidate, working with Professor Helena Cooper-Thom... I consent, begin the study Is Not Selected

Block: Does not consent (1 Question)

Standard: Block 1 - Demographics
Standard: Block 2 - Dependent variables
Standard: Block 3 - Amount of change
Standard: Block 4 - Change IV

EndSurvey:

Hours

First, we would like to know a little bit about the types of people who responded to our survey. If you have more than one employer, please answer these questions thinking about your main employer. On average, how many hours per week do you work for your employer?

▼ Less than 20 (19) ... 80 or more (80)

Tenure

How long have you been with your current employer?

▼ Less than 6 months (1) ... More than 20 years (23)

Industry

What industry do you work in?

Government (1) Education (2) Farming, fishing and forestry (3) Financial services (4) Hospitality and tourism (5) Manufacturing and construction (6) Medical and health care (7) Retail and customer service (8) Science, communications and technology (9) Transportation and logistics (10) Other, please describe: (11)

Sector

What sector are you employed in?

PRIVATE-FOR-PROFIT company, business or individual, for wages, salary or commissions (1)PRIVATE-NOT-FOR-PROFIT, tax-exempt, or charitable organization (2) Local GOVERNMENT (city, county, etc.) (3) State GOVERNMENT (4) Federal

GOVERNMENT (5) SELF-EMPLOYED in own business, professional practice, or farm (6) Working WITHOUT PAY in family business or farm (7)

Firmsize

How many employees work in your organization?

1-4 (1) 5-9 (2) 10-19 (3) 20-49 (4)50-99 (5) 100-249 (6) 250-499 (7) 500-999 (8) 1000 or more (9)

Age

What year were you born?

▼ 2001 (1) ... 1920 (82)

Income

Please estimate your income in the past 12 months before taxes?

▼ Less than $10,000 (1) ... Prefer not to answer (10)

Seniority

At what level of seniority is your job?

Entry Level/ Team Member (1) Team Leader/ Supervisor (2) Middle Manager (3) Senior/ Executive Manager (4)

Education

What is the highest level of school you have completed or the highest degree you have received?

Less than high school degree (1) High school graduate (high school diploma or equivalent including GED) (2) Some college/university but no degree (3) Associate egree/diploma in college/university (2-year) (4) Bachelor's degree in college (4-year)

(5) Master's degree (6) Doctoral degree (7) Professional degree (e.g. JD, MD, CPA) (8)

Gender

Please indicate your gender

Male (1) Female (2) Gender diverse (3)

In this block of questions, we ask about your current behaviors at work, feelings about your job, and future intentions.

Organizational Citizenship Behavior – Organizational

How often do you use each of these behaviors in your current job?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
Show pride when representing the organization in public)	○	○	○	○	○
Defend the organization when other employees criticize it	○	○	○	○	○
Offer ideas to improve the functioning of the organization	○	○	○	○	○
Express loyalty toward the organization	○	○	○	○	○
Keep up with developments in the organization	○	○	○	○	○
Attend functions that are not required but that help the organizational image	○	○	○	○	○
Take action to protect the organization from potential problems	○	○	○	○	○
Demonstrate concern about the image of the organization	○	○	○	○	○

Job satisfaction (5 items) and Job exhaustion (4 items)

How do you feel about your job in general?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
Most days I am enthusiastic about my work	○	○	○	○	○
Each day at work seems like it will never end	○	○	○	○	○
I feel fairly satisfied with my present job	○	○	○	○	○
I consider my job rather unpleasant (r)	○	○	○	○	○
I find real enjoyment in my work	○	○	○	○	○
I feel emotionally drained from my work	○	○	○	○	○
I feel used up at the end of the work day	○	○	○	○	○
I feel fatigued when I get up in the morning and have to face another day on the job	○	○	○	○	○
I feel burned out from my work	○	○	○	○	○

Intention to Quit

How likely it is you will quit your job in the future?

Please rate your chances of:

	Extremely unlikely (1)	Unlikely (2)	Neither likely nor unlikely (3)	Likely (4)	Extremely likely (5)
Quitting in the next 3 months	○	○	○	○	○
Quitting in the next 6 months	○	○	○	○	○
Quitting sometime in the next year	○	○	○	○	○
Quitting sometime in the next 2 years	○	○	○	○	○

Amount of change

Please indicate the amount of change you are ***currently*** experiencing at work?

None (1) Minor amount (2) Modest amount (3) Moderate amount (4) Massive amount (5)

Types of change

What types of change are you ***currently*** experiencing at work? Select as many change types as necessary to explain the types of change you are ***currently*** experiencing at work.

Expansion or growth related change e.g. new products, services, premises, or customers (1)

Cutback related change e.g. downsizing, recruitment freeze, budget cut, or closure (2)

Organization ownership change e.g. acquisition, take-over, or merger (3)

Technology change e.g. computer systems, machinery, or tools (4)

People change e.g. new coworkers, or managers (5)

Working condition change e.g. pay, flexibility, hours, benefits, or location of work (6)

Work-design change e.g. new ways of working, procedures, or changed responsibilities (7)

Significant role change e.g. promotion, sideways move, new job or organization (8)

Other change types, please describe: (9)

Written response

As a result of the change(s) you are **currently** experiencing at work, please describe in a few sentences how you have reacted, felt, and acted at work?

_____

Change recipients reactions

Change is said to be "an ongoing and continuous feature of work today." We define **ongoing changes** as all of the changes that are currently taking place in your organization, affecting you or your work. Please think about the **current ongoing changes** in your organization. How do you feel, think, and intend to act regarding these current ongoing changes?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I feel uncomfortable with the ongoing changes that they are trying to implement (CRRE_em2r)	○	○	○	○	○
I believe the ongoing changes will benefit this organization (CRRE_cog1)	○	○	○	○	○

These ongoing changes are unpleasant for me (CRRE_em1r)	○	○	○	○	○
These ongoing changes will *not* help the development of this organization (CRRE_cog6r)	○	○	○	○	○
I share whatever knowledge or information I have to help the ongoing changes be successful (CRRE_be1)	○	○	○	○	○
I believe the ongoing changes are appropriate for this organization (CRRE_cog4)	○	○	○	○	○
I will work longer hours to implement the ongoing changes successfully (CRRE_be3)	○	○	○	○	○
I am skeptical about the outcomes of these ongoing changes (CRRE_cog7r)	○	○	○	○	○
Due to these ongoing changes, I am *not* satisfied with my job anymore (CRRE_em6r)	○	○	○	○	○
I am trying to encourage my colleagues to adopt these ongoing changes (CRRE_be6)	○	○	○	○	○
These ongoing changes are giving me a headache (CRRE_em3r)	○	○	○	○	○
I will strongly support the implementation of these ongoing changes (CRRE_be7)	○	○	○	○	○

I am happy with the ongoing changes (CRRE_em7)	○	○	○	○	○
I believe the ongoing changes will meet their aims (CRRE_cog3)	○	○	○	○	○
I am trying to convince others about the benefits of these ongoing changes (CRRE_be4)	○	○	○	○	○
These ongoing changes make me emotionally tired (CRRE_em4r)	○	○	○	○	○
I am willing to help these ongoing changes be successful (CRRE_be2)	○	○	○	○	○
These ongoing changes will have a positive impact on the organization (CRRE_cog5)	○	○	○	○	○
I am fighting for the success of the ongoing changes (CRRE_be5)	○	○	○	○	○
I believe the ongoing changes will be very effective for this organization (CRRE_cog2)	○	○	○	○	○
I do *not* like these ongoing changes (CRRE_em5r)	○	○	○	○	○

Change affect

Right now, in the ***present moment,*** how intensely do you feel about the changes in your work or organization? Please rate the intensity of your feelings ***right now*** as they relate to change at work.

	Very slightly or not at all (1)	A little (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
Anxious (haua1)	○	○	○	○	○
Nervous (haua2)	○	○	○	○	○
Tense (haua3)	○	○	○	○	○
Worried (haua4)	○	○	○	○	○
Enthusiastic (hapa1)	○	○	○	○	○
Joyful (hapa2)	○	○	○	○	○
Excited (hapa3)	○	○	○	○	○
Inspired (hapa4)	○	○	○	○	○
Dejected (laua1)	○	○	○	○	○
Depressed (laua2)	○	○	○	○	○
Despondent (laua3)	○	○	○	○	○
Hopeless (laua4)	○	○	○	○	○
At ease (lapa1)	○	○	○	○	○

Calm (lapa2)	○	○	○	○	○
Laid-back (lapa3)	○	○	○	○	○
Relaxed (lapa4)	○	○	○	○	○

State hope

Please take a few moments to focus on yourself and what is going on in your job at this moment. Once you have this “here and now” set in your mind, go ahead and answer.

	Definitely false (1)	Somewhat false (2)	Neither true nor false (3)	Somewhat true (4)	Definitely true (5)
At the present time, I am energetically pursing my work goals (Hope_1path)	○	○	○	○	○
There are lots of ways around any work problem that I am facing right now (Hope_2agency)	○	○	○	○	○
If I should find myself in a jam at work, I could think of many ways to get out of it (Hope_1agency)	○	○	○	○	○
Right now, I see myself as pretty successful at work (Hope_2path)	○	○	○	○	○
I can think of many ways to reach my current work goals (Hope_3agency)	○	○	○	○	○
At this time, I am meeting the work goals I have set for myself (Hope_3path)	○	○	○	○	○

Helplessess

What influence do you have over what happens in your workplace?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
My impact on what happens at work is very large (r)	○	○	○	○	○
I have little influence over what happens around here	○	○	○	○	○
I do *not* have enough power to make any real changes	○	○	○	○	○
No matter what I do, nothing seems to have an effect	○	○	○	○	○
I have a great deal of control over how things are done (r)	○	○	○	○	○
There is very little I can do to change things at work	○	○	○	○	○

Cynicism about organizational change

What factors affect the success or failure of change in your workplace?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
Most of the programs that are supposed to solve problems around here will *not* do much good	○	○	○	○	○

Suggestions on how to solve problems will *not* produce much real change	○	○	○	○	○
Plans for future improvement will *not* amount to much	○	○	○	○	○
The people responsible for solving problems around here do *not* try hard enough to solve them	○	○	○	○	○
The people responsible for making things better around here do *not* care enough about their jobs	○	○	○	○	○
The people responsible for making changes around here do *not* have the skills needed to do their jobs	○	○	○	○	○

Change fatigue

How do you feel about the current pace of change in your organization?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
Too many change initiatives are introduced at my organization	○	○	○	○	○
I am tired of all the changes in this organization	○	○	○	○	○
The amount of change that takes place in my organization is overwhelming	○	○	○	○	○
We are asked to change too many things at my organization	○	○	○	○	○

It feels like we are always being asking to change something around here	○	○	○	○	○
I would like to see a period of stability before we change anything else in this organization	○	○	○	○	○

Job insecurity - Quantitative and qualitative

What do you think the future looks like with your current employer?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I am worried that I will have to leave my job before I would like to (qnt_1)	○	○	○	○	○
There is a risk that I will have to leave my present job in the year ahead (qnt_2)	○	○	○	○	○
My future career opportunities in my organization are favorable (qul_1_r)	○	○	○	○	○
I feel uneasy about losing my job in the near future (qnt_3)	○	○	○	○	○
I feel that my employer will provide me with stimulating job content in the future (qual_2_r)	○	○	○	○	○
I believe that my employer will need my competence in the future (qual_3_r)	○	○	○	○	○
My pay development in this organization is promising (qual_4_r)	○	○	○	○	○

Appendix E – Study 2 survey items

Survey Flow

EmbeddedData
PROLIFIC_PIDValue will be set from Panel or URL.

Standard: Informed Consent form (1 Question)

Branch: New Branch
If
If My name is Paulette Brazzale, and I am a PhD candidate, working with Professor Helena Cooper-Thom... I consent, begin the study Is Not Selected

Block: Does not consent (1 Question)

Standard: Block 1 - Demographics
Standard: Block 2 - Dependent variables_Distal outcomes
Standard: Block 3 - Amount of change
Standard: Block 4 - Antecedents or covariates

EndSurvey:

Instruments unchanged from Study 1 are not replicated:

Demographics

Organizational Citizenship Behavior- organizational

Job satisfaction

Job exhaustion

Intention to quit

Type of change

Change Affect

Cynicism about organizational change

Change fatigue

Hope

Helplessness

Job insecurity

Amount of change

Please indicate the amount of change you are ***currently*** experiencing at work?

Very little to none (1) Minor amount (2) Modest amount (3) Moderate amount (4)Massive amount (5)

Written response

As a result of the change(s) you are experiencing at work, please describe in **a few sentences** how you are thinking, feeling, and acting at work. Please include any **strong positive and/or negative** thoughts, feelings or reactions you are currently having in relation to change at work.

Change Recipients Reaction - Cognitive

We define **ongoing changes** as all of the changes that are currently taking place in your organization, affecting you or your work.

Please indicate your views about the **current ongoing changes** in your organization.

	1. Strongly disagree	2. Disagree	3. Neither agree nor disagree	4. Agree	5. Strongly agree
I believe the ongoing changes will benefit this organization	○	○	○	○	○
These ongoing changes will help the development of this organization	○	○	○	○	○
I believe the ongoing changes are appropriate for this organization	○	○	○	○	○
I have confidence in the outcomes of these ongoing changes	○	○	○	○	○

I believe the ongoing changes will meet their aims	○	○	○	○	○
I believe the ongoing changes will be very effective for this organization	○	○	○	○	○
These ongoing changes will have a positive impact on the organization	○	○	○	○	○

Change Recipients Reaction – behavior

In the past month, how frequently have you …

	1. Never	2. Rarely	3. Sometimes	4. Often	5. Many times
Worked longer hours to implement the ongoing changes	○	○	○	○	○
Tried to encourage your colleagues to adopt these ongoing changes	○	○	○	○	○
Tried to convince others about the benefits of these ongoing changes	○	○	○	○	○
Helped to make these ongoing changes be successful	○	○	○	○	○
Showed strong support for the implementation of these ongoing changes	○	○	○	○	○
Fought for the success of the ongoing changes	○	○	○	○	○
Shared whatever knowledge or information you have to help with the ongoing changes	○	○	○	○	○

Resistance to Change – behavior

In the past month, how frequently have you …

	1. Never	2. Rarely	3. Sometimes	4. Often	5. Many times
Looked for ways to prevent ongoing changes from taking place	○	○	○	○	○
Complained about the ongoing changes to my colleagues	○	○	○	○	○
Protested against the ongoing changes	○	○	○	○	○
Presented my objections regarding the ongoing changes to management	○	○	○	○	○
Spoken negatively about the ongoing changes to others	○	○	○	○	○

Proactive work behavior

In the past month, at work how frequently have you....

	1. Almost never	2. Very little	3. Sometimes	4. Often	5. Many times
Initiated better ways of doing your core tasks	○	○	○	○	○
Improved the way in which your core tasks are done	○	○	○	○	○
Made changes to the way your core tasks are done	○	○	○	○	○
Suggested ways to make your work unit more effective	○	○	○	○	○
Developed new and improved methods to help your work unit perform better	○	○	○	○	○
Improved the way your work unit does things	○	○	○	○	○
Made suggestions to improve the overall effectiveness of the organization (e.g., by suggesting changes to administrative procedures)	○	○	○	○	○
Involved yourself in changes that are helping to improve the overall effectiveness of the organization	○	○	○	○	○
Come up with ways of increasing efficiency within the organization	○	○	○	○	○