

**Tuning in to Employees' Experiences of Ongoing Change: An Investigation of
Employees' Tri-Dimensional Attitudes to Change and Work-Related Outcomes**

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Abstract

Turbulence and uncertainty are the signatures of today's dynamic business environment. Extensive research has focussed on employees' reactions to planned change contexts (Bouckennooghe, 2010; Oreg et al., 2011). Nevertheless, studying employees' reactions to planned change in isolation to normal circumstances does not approximate employees' experiences of ongoing and pervasive change as part of their work life (Brazzale et al., 2020; Kiefer, 2005; Loretto et al., 2010; Tsoukas & Chia, 2002). The overarching goal of this study is to obtain a richer understanding of employees' experiences of ongoing change. To achieve this, I draw on Piderit's (2000) tri-dimensional model to conceptualise employees' attitudes to change (affect, thoughts, and behavioural intents) in order to differentially predict two work-related outcomes, namely job satisfaction and organisational citizenship behaviours directed to the organisation (OCBO). To understand these relationships further, I incorporate a trait component, that is, to explore whether employees' openness to experience (OE) influences the effect of employees' attitudes to change on work-related outcomes.

Hypotheses were tested using data from an online survey collected through a third-party platform, Prolific. The sample comprised 834 participants from the United States, aged 18 or over who were currently working at least 20 hours per week and were experiencing change(s) at work. The findings show that employees' attitudes to ongoing change are significantly correlated with their job satisfaction and OCBO. Specifically, the multiple regression analyses uncovered unique direct relationships: (a) employees' affective and cognitive attitudes to ongoing change positively predict job satisfaction; (b) employees' cognitive and behavioural attitudes to ongoing change positively predict OCBO. Surprisingly, the confirmatory factor analyses revealed that OE emerged as two distinct facets of Openness_creativity and Openness_intellect, hence, the moderation effects were assessed for each of these. In contrast to predictions, no significant

moderation effects were observed for either facet of OE. Additionally, the Openness_creativity facet showed a direct positive relationship with both work-related outcomes; job satisfaction and OCBO. However, these associations are relatively small compared to the direct effects of attitudes to ongoing change when predicting employees' work-related outcomes.

During this dynamic era, this study sheds light on employees' experiences of ongoing change that they encounter as part of contemporary work life. The findings highlight the importance of investigating employees' attitudes to ongoing change in relation to the broader context of workplace outcomes. Moreover, employees' attitudes to change are much more complex than assumed by uni-dimensional constructs. The tri-dimensional framework is a fruitful starting point for future research to further investigate employees' attitudes to ongoing change and explore the unique relationships between the attitude components and different types of work-related outcomes. Implications for researchers and practitioners are discussed.

Keywords: organisational change, ongoing change, tri-dimensional attitudes to change, micro-level perspective, employees' experiences of change at work

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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 acknowledgements), 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.

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CHAPTER I

Introduction

“The point is that usually we look at change, but we do not see it. We speak of change, but we do not think about it. We say that change exists, that everything changes, that change is the very law of things: Yes, we say it and we repeat it; but those are only words, and we reason and philosophise as though change did not exist. In order to think change and see it, there is a whole veil of prejudices to brush aside, some of them artificial, created by philosophical speculation, the others natural to common sense.”

—Henri Bergson (1946, p. 131)

Today, we are constantly reminded by our surroundings that we are living in a volatile, uncertain, complex, and ambiguous (VUCA) global environment. There were certainly VUCA periods in history, as each industrial revolution resulted in profound changes in how and where people work in society, adopting new knowledge, and technologies. Yet with today’s global-scale connectivity, the speed of current breakthroughs in technology advancement and the intensity of the disruptions experienced in every industry and country means employees and organisations are facing an unprecedented turbulent environment (Gandhi, 2017; Johansen & Euchner, 2013; Sharma & Sharma, 2019). As a result, many organisations are continually seeking ways to maintain their competitiveness by implementing changes to adapt to fast-evolving market conditions. Some common types of organisational changes include mergers and acquisitions, restructuring and downsizing, establishing new systems and procedures (e.g., IT and HR), or introducing new senior personnel and strategic initiatives (Huber et al., 1993).

Just as we may have thought there were enough changes in our lives, the unexpected COVID-19 crisis presented people and organisations with more

uncertainties. This global-scale crisis was a reality check for organisations on their current approach to be flexible within dynamic contexts. According to Worley and Jules (2020), too many organisations were unprepared for the VUCA world, because they are still trapped in a series of self-limiting assumptions that continue to promote the “accepted wisdom” (p. 2), and assumed stability rather than uncertainty. Managing organisational change in VUCA contexts requires embracing inherent paradoxes embedded in organisational settings (Eisenhardt, 2000; Lewis, 2000; Nasim & Sushil, 2011). However, acknowledging paradoxes and uncertainties is unnatural under the dominant problem-solving approach of organisational change, which seeks stability and control (Johansen & Euchner, 2013). This global crisis was almost like a wake-up call for many organisations informing them that if there was ever a time to reflect on our understanding about changes in organisational settings, it is now.

Researchers have frequently suggested the critical value of placing employees’ wellbeing at the forefront of human resource management (HRM) practices, as investing in human capital offers organisations a competitive edge in this dynamic era (Barney & Wright, 1998; Boxall & Steeneveld, 1999; Kowalski & Loretto, 2017; Luthans & Youssef, 2004). However, many media and industry sources raise concerns regarding the current amount and intensity of changes experienced by employees, which threaten employees’ wellbeing (Brooks, 2017; Creasey, 2019; Wickford, 2019). The aggregate exposure of multiple constant changes can result in stress among employees that increases the risk of employee burnout (Day et al., 2017; Dubois et al., 2014; Hylton, 2004). Other empirical evidence demonstrated associations between organisational changes and employees’ negative health outcomes, such as lower employee self-rated health (Hasson et al., 2006) and higher usage of stress-related medications (Dahl, 2011).

Organisations focussed solely on accelerating the speed of implementing change while neglecting the subsequent pressure imposed on employees are facing detrimental effects at both individual and organisational levels. It is a challenging time for organisations as well as for their employees. Research suggests that organisations which adapt to the intense market pressure by implementing an increased number, and pace, of changes without acknowledging the accumulative effects of all the changes may overload their employees (Bruch & Menges, 2010). For example, many organisations undergoing restructuring adopt the idea of *leanness* (Womack et al., 1990) that advocates creating a highly efficient, flexible, creative, and high-performing workforce and work systems (Kelliher & Anderson, 2010). This is a popular concept because it offers organisations a legitimate reason for cost-cutting within a competitive business environment. The idea of leanness provides a vision for organisations to drive towards minimum resources with maximum output, reinforcing the idea that only the elite provide human capital that delivers organisational competitive advantage in this dynamic era (Ahmadjian & Robinson, 2001; Baumol et al., 2003; Littler & Innes, 2004).

There are beneficial sides for offering employees a vision of a lean workforce as it frees employees from the boredom associated with bureaucracy to develop highly efficient work systems and empowers them to engage in creative and challenging work (Hammer & Champy, 1993; Womack & Jones, 1996). However, research on lean organisations raises concerns for the “dark side of lean” (Mehri, 2006, p. 21), as organisations that are overly-focussed on creating a high-performing workforce without being cognizant of the stress and demands loaded on employees may underestimate what they are going through at the individual level (Carter et al., 2011; Corbett, 2015). The unrelenting pressure from aggressive and rapid adaptation to external conditions may lead to a chaotic situation that ultimately harms an organisation inside and out with

demotivated employees, confused customers, and poor quality of services (Bruch & Menges, 2010; Ji et al., 2014). Hence, organisations pose a risk to themselves by overloading employees with too many changes without giving them enough time, resources, and energy-boosting activities to cope (Palmer et al., 2017). As a result, the external competitive pressure transforms into an austere internal climate of *doing more with less* that risks the organisation being stretched to its maximum capacity, and thereby falling into the acceleration trap (Bruch & Menges, 2010). This is a dangerous situation for employees and organisations as it may lead to individual-level change fatigue and burnout that ultimately harms organisational-level performance, efficiency, productivity, and retention (Kelliher & Anderson, 2010; Palmer et al., 2017).

Therefore, it is timely and necessary to investigate employees' experiences of change at work, especially acknowledging change from the micro-level characterised as being ongoing and pervasive. For nearly three decades, researchers have called for organisational research and practice to reorient towards acknowledging the dynamic and prevalent nature of change (Ford & Ford, 1994; Nelson, 2003; Orlikowski, 1996; Pettigrew, 1992; Thomas & Hardy, 2011; Tsoukas & Chia, 2011; Van de Ven & Poole, 1995; Weick, 1993; Weick, 1998; Weick & Quinn, 1999). Nearly a decade ago, Tsoukas and Chia (2011) suggested that the traditional planned approach to change undermines the ongoing and ubiquitous micro-level changes experienced by employees. More recently, Schein and Schein (2019) stated that linear stage models of planned change are not relevant in today's dynamic VUCA world.

Unfortunately, a shift in paradigm in the organisational change research is easier said than done (Tsoukas & Chia, 2011). The alternative perspective of ongoing change struggles to be recognised because the dominant understanding of organisational change was built on a macro-level managerial perspective (Tsoukas & Chia, 2011; Weick, 1998). Thus, the underlying assumptions were endorsed by those who had power in

organisational settings, which made these assumptions difficult to challenge (Cummings et al., 2016; Nelson, 2003; Piderit, 2000; Thomas & Hardy, 2011). A surprisingly small number of researchers adopt a micro-level perspective, which acknowledges that employees are experiencing pervasive and ongoing change as a normal aspect of their work (Brazzale et al., 2020; Kiefer, 2005; Loretto et al., 2010; Rafferty & Griffin, 2006). It is challenging to rethink the ontological commitments that have underpinned research on change (Weick, 1998). In order to show my acknowledgement of the complexity embedded in this field of research and cultivate my stance that each paradigm has its place to serve its purpose, in the next section, I will discuss the two change paradigms that are commonly debated in organisational change literature.

Change in the Organisational Setting: An Inherent Paradox

The dominant dilemma in organisational change research is the presence and significance of inherent paradoxes (Nasim & Sushil, 2011). Paradox refers to the co-existing tensions of two inconsistent states (Eisenhardt, 2000) and it surfaced in various review studies of organisational change (Bouckennooghe, 2010; Heracleous & Bartunek, 2020; Nasim & Sushil, 2011). The expression ‘organisational change’ is used to refer to both phenomena where organisations are trying to bring about change and the constant flux that organisations are experiencing, being a product of ongoing change (Tsoukas & Chia, 2002). That is, from a macro-level perspective, organisations focus on planned change and are trying to establish order through managing human actions. Meanwhile, human actions at the individual level contribute towards shaping the organisation as a whole. Therefore, the notion of managed change does not approximate the reality of micro-level changes experienced through the ongoing agency of employees’ day-to-day actions (Orlikowski, 1996; Tsoukas & Chia, 2002).

How organisational change is conceptualised and modelled can differ drastically depending on the subject of interest, an observer’s perspective, and one’s ontological

beliefs regarding the nature of change. Weick and Quinn (1999) introduced the two change paradigms that distinguish the planned (also referred to as the episodic) change from the ongoing (also referred to as continuous) change. The planned and ongoing change represents the age-old debate around the nature of change. Some believe organisational change is triggered by contextual forces such as the emergence of new technology while others follow the well-known saying of the ancient Greek philosopher Heraclitus, “Nothing endures but change”, highlighting that change is ever-present, being “a phenomenon of time” (Chia, 1999; Ford & Ford, 1994, p. 759).

Macro-Level Planned Change

From a macro-level, organisational change is often viewed as a planned event triggered by contextual forces such as globalisation, new technology, stakeholder needs and expectation, or a change in government policies and legislation (Dawson, 1996; Greenwood & Hinnings, 1988; Lewin, 1947; Pettigrew, 1992; Sushil, 2001). These factors affect change at the organisational level where the act of implementing a specific change in the organisation is, therefore, an intentional and systematic intervention (Bouckennooghe, 2010; Nasim & Sushil, 2011; Tenkasi & Chesmore, 2003; Weick & Quinn, 1999). Therefore, from a macro-level perspective, organisational change is often viewed as a planned event that most likely occurs as an occasional interruption during a specific period that deviates from the organisation’s normal equilibrium (Weick & Quinn, 1999). This macro-level planned view of change remains the dominant approach in the organisational development (OD) and change literature. Researchers investigate questions like ‘why did a change initiative fail?’ and ‘how can organisations prepare for, implement, and manage employees’ resistance to change?’. Such studies adopt a managerial approach, generate organisational-level strategies and approaches (e.g., create buy-in, participation, communication), and aim to implement the pre-determined change goals successfully (Adamson et al., 2006; Khan, 2006; Washington & Hacker,

2005). The dominant research suggests that there is a rational process in which management can control and implement change using stage models.

Stage models of organisational change follow a typical programmatic sequence in which planned change can be modelled as a linear process from one state to another state (Bouckennooghe, 2010; Nasim & Sushil, 2011; Weick & Quinn, 1999). Kurt Lewin's (1947) work is recognised as formative within organisational change research, with his three-step model of change—*unfreezing*, *change*, *refreezing*—used as a generic recipe for change. This formulaic view of change processes has inspired many subsequent change scholars to recast this original stage model of change into alternative forms (e.g., Beer et al., 1990; Judson, 1991; Kotter, 1995). At a broader level, all these stage models of the change process rest on the same assumption where change as a planned event that, if the specified stages are implemented, will be successful (Nasim & Sushil, 2011; Rosenbaum et al., 2018). Lewin's (1947) planned approach to organisational change centred on establishing the need to change by overcoming restraining forces, thus, *unfreezing* from the old and subsequently *refreezing* the new. Such stage models incorporating behaviour-based theories and strategies to influence employees' behaviours and perceptions at the unfreezing stage to favour and support the proposed change (Weick & Quinn, 1999). This planned approach has undoubtedly laid the foundation for mainstream change research that is prevalent in many OD and change textbooks (e.g., Brown, 2014; Hayes, 2018; Palmer et al., 2017) and continues to influence many academicians and practitioners today.

It is worth noting that some scholars have criticised Lewin's linear and static representation of organisational change as being overly simplified and inappropriate (Child, 2005; Clegg et al., 2005), while others argue it has been misinterpreted (Burnes, 2020; Coghlan, 2020). Burnes (2020) argued that the understanding of Lewin's linear model of change—*unfreezing*, *change*, *refreezing*—was a conventional representation

that diluted the essence and complexity of Lewin's original ideas. The model is grounded in a complex theory (i.e., field theory) with the three iterative processes of continuous adjustments (Lewin, 1936; 1939; 1942). The misinterpretations of Lewin's change model due to his sudden death in 1947 resulted in subsequent work often only focussed on surface aspects of the model, rather than situating and drawing on the model as originally intended (Coghan, 2020; Schein & Schein, 2019).

Micro-Level Ongoing Change

Although the macro-level planned change continues to be the dominant view, it is equally important to understand how employees are experiencing change at the micro-level. (Bamford & Forrester, 2003; Tsoukas & Chia, 2002). According to Weick and Quinn (1999), implementing planned change is the organisation's top-down decision on how to respond to external demands; in contrast, ongoing change is the bottom-up micro-level changes driven by an individual's intrinsic motivation to adapt proactively, which accumulate to bring about organisational change. Tsoukas and Chia (2002) pointed out that focussing on viewing change from the macro-level risks missing a piece of knowledge that explains the reality of changes encountered by employees.

At the micro-level, an organisation is the site of human actions where every member contributes towards shaping the organisation in a constantly evolving manner (Nasim & Sushil, 2011; Orlikowski, 1996; Tsoukas & Chia, 2002). Change is, therefore, naturally emergent rather than carefully designed, controlled, or a replacement for something else. It is a continuous process of constant adjustments, adaptation, and improvements that strengthen existing strategies, structures, people, and processes (Brown & Eisenhardt, 1997; Nelson, 2003; Orlikowski, 1996; Tushman et al., 1986; Van de Ven & Poole, 1995). A micro-level view is most likely to suggest the ongoing, evolving nature of change (Orlikowski, 1996; Weick & Quinn, 1999). Although these constant adjustments may be small and seem insignificant, these

processes tend to be frequent, simultaneous, and have the potential to shape organisational strategy or structure over time (Heracleous & Bartunek, 2020; Tsoukas & Chia, 2002; Weick & Quinn, 1999).

Ongoing change scholars argue that conceptualising change as a linear process treats the organisation as a closed system and the change as an isolated event, neglecting how employees encounter change (e.g., Greenwood & Hinings, 1988; Nelson, 2003; Orlikowski, 1996; Tsoukas & Chia, 2002). Instead, treating continuous adaptation processes as a normal part of organisational life is the essence of how employees are experiencing change at work (Orlikowski, 1996; Tsoukas & Chia, 2002). In contrast to the dominant planned change approach, there has been far too little conceptual and empirical work regarding ongoing change. There are strikingly few empirical studies acknowledging that employees are experiencing multiple, frequent, ongoing changes as a normal aspect of their daily work (Brazzale et al., 2020; Kiefer, 2005; Loretto et al., 2009; Rafferty & Griffin, 2006). Thus, because the existing organisational change literature is focussed largely on planned change contexts, little is currently known about ongoing changes at the micro-level.

Situating the Current Study within an Employee-Centric Perspective

As is evident from the paradoxes discussed above at length and embedded inherently in organisational change research, I acknowledge the complexities present in the context of my research. My thesis mirrors ongoing discussions around the ontological beliefs of change. Instead of arguing that one change paradigm innately represents reality better than the other, undermining the knowledge obtained from one paradigm to elevate knowledge gained from the other, I argue that the appropriate paradigm should be adopted depending on the subject of the research interest.

The planned and ongoing change paradigms offer the potential for complementary knowledge that is beneficial to both change scholars and practitioners,

providing a richer understanding of organisational change at different levels of interest. Each paradigm has its strengths and shortcomings, and scholars are responsible for adopting the appropriate paradigm that best captures the nature of the phenomenon of the study. Additionally, given the construct proliferation in change research (Bouckennooghe, 2010; Oreg et al., 2011), scholars should take care to select the appropriate constructs at the right level of bandwidth to capture the research interest. Moreover, researchers should remain aware of the limitations of the knowledge obtained from the particular paradigm they choose and be open to learn from alternative paradigms.

Turning to look at the appropriate use of planned versus ongoing change approach, the planned change approach is pragmatic for designing and implementing a single change initiative as it prescribes specific managerial actions at each stage (Nelson, 2003; Tsoukas & Chia, 2002). This planned change approach has been useful to organisational leaders and change practitioners as it provides snapshots of the key dimensions at a different point in time, along with the expected trajectories that organisations follow during the change process (Brown, 2014; Hayes, 2018; Palmer et al., 2017).

This study is not designed to assess whether the planned approach is appropriate for studying a single change implementation process. Rather, the current study recognises the lack of knowledge derived from the micro-perspective on change, acknowledging the extra challenges placed on employees' shoulders in addition to the pressures posed by the VUCA environment. Thus, the current research adopts an employee-centric perspective aiming to understand employees' overall experiences of ongoing change at work. Therefore, I look beyond any single specific change initiative, and instead acknowledge ongoing and pervasive changes at the micro-level and strive to obtain a deeper understanding of the aggregate effects of workplace changes on

employees. The episodic nature of change illustrated in the traditional planned change approach focussed on a single change event does not capture the broader level phenomenon I intend to capture, and thus the ongoing change paradigm is more appropriate. Therefore, this research aims to align with the work of ongoing change scholars such as Orlikowski (1996), Tsoukas and Chia (2002), and Weick and Quinn (1999). Following their insights, my study focusses on the pervasive, fluid, and continuous micro-level changes experienced by individuals at work.

Employees' Attitudes to Ongoing Change

In the OD and change literature, extensive prior work has studied employees' experiences of change through the umbrella concept of employees' reactions to change (Oreg et al., 2011). There are numerous ways in which scholars conceptualise and label reactions to change, resulting in this line of research being criticised as “a disintegrated field” due to construct proliferation (Bouckennooghe, 2010; Oreg et al., 2011, p. 462). Some scholars prefer terms with a positive connotation such as readiness for change and openness to change; while other scholars use terms with a negative connotation like resistance to change; yet other scholars prefer more all-encompassing language such as reaction to change, attitude to change, or response to change. The surge in differently-labelled niche change reaction constructs with shared conceptual domains fragments this field of research and hinders the integration of knowledge into a coherent whole (Podsakoff et al., 2016). In these niche approaches, although these constructs offer specialised knowledge, they are not adequately distinguished, which creates confusion and results in some researchers perceiving constructs as distinct while others treat constructs as interchangeable (Le et al., 2010; Tepper & Henle, 2011). This problem can be observed through the presence of *jingle-jangle fallacies* (Block, 1995). The *jingle fallacy* refers to the same label being used for different conceptualisations of a construct, whereas the *jangle fallacy* occurs when different labels are given to the same

construct. An example of the *jingle fallacy* is that in one study, openness to change has been defined as an attitude of change acceptance (Wanberg & Banas, 2000) and in another study, it has been used for a dispositional orientation to change (Seppälä et al., 2012).

Despite the various ways to conceptualise employees' reactions to change, the bulk of research has typically favoured the planned change approach, considering change as an extraordinary event, aiming to manipulate employees' attitudes and behaviours to increase the chances of successful change implementation (Bouckenoghe, 2010; Oreg et al., 2011). These reactions to change constructs are coherent with the stage model, where the key is to establish the need to change by overcoming restraining forces, therefore, unfreezing from the old and refreezing the new (e.g., Hayes, 2018; Kotter, 1995). It appears that this line of research is based on the consensus that such individual-level attitudes and behaviours determine the success of a change implementation and built constructs to study individual-level phenomena that help to achieve organisational objectives (e.g., Armenakis et al., 1993; Bartunek et al., 2006; Kotter, 1995; Lau & Woodman, 1995).

The research gap is born out of the traditional top-down focus on specific change projects rather than acknowledging that employees are experiencing multiple and ongoing changes. The existing literature on employees' reactions to change is set in a single change context, which is in isolation to normal circumstances. The information obtained from studying employees' specific reaction towards a proposed change are typically useful and pragmatic for organisational—and group-level—research on change, but limit our understanding of change experienced at the employee-level (Brazzale et al., 2020). For instance, if multiple change initiatives are happening in an organisation, managers and change practitioners usually only focus on employees' attitudes to those specific change programs that are relevant to them, offering directions

for appropriate interventions. However, employees are experiencing the aggregate effects of all the changes in an organisation. This research looks beyond the specific change context to understand employees' experiences of ongoing change from an employee-centric micro-level perspective. Therefore, instead of selecting a niche construct, this study adopts the broader approach that captures employees' overall experiences of ongoing change. Thus, encompassing conceptualisation such as attitudes to change is appropriate. I employ Piderit's (2000) tri-dimensional conceptualisation, which broadly captures the core attributes of employees' attitudes to change along affective, cognitive, and behavioural dimensions (Borges & Quintas, 2020; Oreg, 2006; Tsousis & Vakola, 2018). This tri-dimensional framework allows us to zoom out of the conceptual chaos and take a broader view to enhance the understanding of employees' experiences of ongoing change.

Moreover, I recognise the power in language, and I aim to be attentive to my choice of terminology to echo the perspective I am taking in the study. Hence, I will briefly discuss the rationale behind why I shift away from labelling the study as reactions to change, and instead align with attitudes to change.

The common understanding and assumptions of organisational change are endorsed by power and reinforced by the practice of language (Foucault, 2002; Gavey, 2019; Hardy & Clegg, 2004; Thomas & Hardy, 2011). Research on employees' reactions to change has typically prioritised the macro-perspective, favoured the planned approach, aimed to intervene people's perceptions, remove resistance, and increase the chances of successful change outcomes (Bouckennooghe, 2010; Dent & Goldberg, 1999; Oreg et al., 2011). It is widely observed in the dominant change research to refer to employees as change recipients and studying employees' experiences of organisational change through constructs like resistance to change or reactions to change (Coch & French, 1948; Ford et al., 2008; Jacobs & Keegan, 2018;

Oreg, 2003, 2006; Oreg et al., 2011; Tsaousis & Vakola, 2018). These conceptualisations and their labellings not only fundamentally assume that employees are passive recipients, but also accept that employers are doing the right thing by designing and implementing a change program; therefore, compliance is rewarded and resistance is problematic (Piderit, 2000; Thomas & Hardy, 2011). I have aligned the present study with ongoing change scholars (Orlikowsk, 1996; Tsoukas & Chia, 2002; Weick, 1998), acknowledging that employees are active agents of their work, able to exhibit proactive behaviour and take initiative to continually adapt to change and improve organisational conditions (Ahmad et al., 2020; Crant, 2000). As pointed out by Grant and Parker (2009, p. 342), especially in an uncertain environment, “employees are increasingly likely to be and need to be active participants.” Therefore, it is most suitable to describe the phenomenon of the interest in this study as employees’ attitudes to change (Bouckennooghe, 2010; Choi, 2011), which avoids placing employees in a passive role and does not presume a particular employee or researcher orientation.

Attitudes to Change and Work-Related Outcomes

Although there are numerous conceptualisations of employees’ attitudes to change, the general pattern of relationships is fairly consistent across studies. Employees’ attitudes to a planned change has an impact on how employees think or relate to their job (i.e., job attitude) and how they decide to act in the workplace (i.e., work behaviours) (e.g., Ferres & Connell, 2004; Holt et al., 2007; Oreg, 2003; Wanberg & Banas, 2000). Specifically, when employees experience positive attitudes to the proposed change, it is more likely that they will behave positively and also experience positive work-related outcomes. Whereas, employees who experience more negative attitudes to the planned change are more likely to experience a negative impact on their work-related behaviours and other outcomes. The present research adopts the ongoing change paradigm and the broader tri-dimensional conceptualisation of attitudes to

change, aiming to examine whether the aggregate effects of all daily changes have direct effects on employees' work-related outcomes. The study focusses on two different types of work-related outcomes: job satisfaction (job attitude) and organisational citizenship behaviour directed to the organisation (OCBO; work behaviour).

Wellbeing-Related Job Attitude: Job Satisfaction. Job satisfaction is a topic that attracts wide interest for both organisations and their people as, to some extent, it reflects employees' psychological wellbeing (Fisher, 2010; Judge et al., 2017), while at the same time, in aggregate, it reflects organisational functioning (Spector, 1997). It is ethical for organisations to consider their employees' wellbeing. Judge et al. (2017) stated in their recent review of a century of job attitudes: "The concern with human happiness is as legitimate and socially important as the concern with efficiency" (p. 356). Organisations bear the responsibility of treating their employees in ways that sustain their physical and psychological wellbeing at work. For example, organisations should prevent physical harm (Day et al., 2017), psycho-social strain (Dahl, 2011), bullying (Vartia, 2001), excessive workload (Cotton & Hart, 2003), and high amounts of change (Brazzale et al., 2020).

It is highly relevant and necessary for organisations to be concerned with employees' wellbeing at work, especially under today's challenging VUCA working conditions. As organisations are striving to adapt to fast-evolving external environments, constant changes become a significant aspect of employees' everyday work life (Anderson, 2013; Brazzale et al., 2020; Day et al., 2017). Empirical evidence reflects that organisational change can result in physical and psychological stress among employees (Hylton, 2004). Change-related stressors include psychological uncertainty (Rafferty & Griffin, 2006), job insecurity (Bordia et al., 2004; Quinlan & Bohle, 2009), role ambiguity (Smollan, 2015), and increased workload (Puleo, 2011). Studies suggest

that the aggregate exposure to multiple ongoing changes induces change-related stressors, which may both directly and indirectly increase employee burnout (Day et al., 2017; Dubois et al., 2014). Organisations overly focussed on external demands while neglecting the accumulative effects of constant internal changes on employees may overload them with unrealistic pressures. In this case, organisations not only place their employees' wellbeing under severe strain but also risk damaging overall organisational performance (Bamberger et al., 2012; Bruch & Menges, 2010; Dahl, 2011; Palmer et al., 2017). Therefore, it is highly relevant to investigate the effects of employees' attitudes to ongoing change on their job satisfaction as a means to reflect employees' daily experiences of ongoing change at work.

Discretionary Work Behaviour: OCBO. In many cases, the underlying goal of implementing organisational changes, such as restructuring and process improvement, is to enhance overall organisational performance in terms of productivity, efficiency, innovation, and competitiveness (Carter et al., 2013). At lower organisational levels, progress towards achieving such goals can be measured in terms of employees' performance behaviours that contribute to these broader ends (Carter et al., 2013). Extensive empirical studies have focussed on job performance as a work-related outcome because, in the context of a specific change implementation, job performance reflects how well employees have adapted to new work processes (Carter et al., 2013; Hatcher & Ross, 1991; Schweiger & DeNisi, 1991). However, the present study adopts a micro-level perspective and looks beyond the context of one specific change. I aim to investigate the effects of everyday experiences of multiple ongoing change on employees' work-related outcomes.

OCB is particularly relevant in the context of organisational change. Chiaburu et al. (2011) argued that OCBO (i.e., OCB directed at the organisation) requires employees to notice the need for action and rely on being proactive; this is especially

the case in uncertain situations with unclear goals. In their meta-analysis, Podsakoff et al. (2000) indicated that employees with higher OCB demonstrate a higher willingness to deal with disruptions, uncertainties, and ambiguities accompanying ongoing changes. Importantly, they pointed out that OCB contributes positively to organisational performance as it enhances co-workers' and managers' productivity by facilitating collaboration between workgroups and by helping the organisation adapt better to changes. Similarly, Park (2018) found that OCB was positively related to the overall organisational performance in terms of labour productivity, quality, and customer satisfaction.

Moreover, compared to job performance, OCB is a more appropriate work-related outcome that may better reflect how employees respond to ongoing changes, yet OCB is rarely researched in organisational change contexts. Job performance and OCB differ in that the former is an in-role behaviour that is necessary, while the latter refers to extra-role behaviours that are conducted on a discretionary basis by employees (Carter et al., 2013). The discretionary nature of OCB means it is a less biased indicator of performance-relevant behaviours than self-report job performance as it does not tap into an individual's self-evaluation of their mandatory performance (Dunning et al., 2004; Hu et al., 2014). Specifically, according to Dunning et al. (2004), variables that are less threatening to a respondent's self-worth are less likely to be answered in a socially desirable, self-promoting way.

I note that there is another line of studies centred around a related OCB construct, namely change-oriented OCB, proposed by Choi (2007). Change-oriented OCB taps into employees' initiatives on making suggestions and expressing ideas for the successful implementation of change efforts (Choi, 2007; Seppälä et al., 2012). At its core, change-oriented OCB is directed towards employees' change-specific voluntary and constructive efforts. In a study of 184 employees, employees with a higher sense of

power and who identified highly with the work unit tended to be oriented towards change and contributed higher change-oriented OCB (Seppälä et al., 2012). However, this study is not focussed on how employees are supporting change, but rather their actions overall to help the functioning of their organisation during ongoing change. Therefore, in comparison with change-oriented OCB that is targeted at change supporting behaviours, the general OCB construct aligns with the approach taken in this study. Moreover, I avoid supporting a literature with niche constructs that risks being siloed from broader organisational behaviour (OB) research.

The Role of Openness to Experience

In the organisational change context, personality may be an important aspect of reactions to change, as reflecting individual differences in how employees perceive their experiences of change at work. Lau and Woodman (1995) argued that attitudes to change depended on an individual's mental schemata, which they defined as "mental maps representing knowledge structures of change attributes and relationships among different change events" (p. 538). Such mental maps shape how employees perceive the organisational change and influence how they react to it, and such schemata are significantly affected by personality (Lau & Woodman, 1995). Bamberger et al. (2012) similarly suggested that personality shaped employees' psychological reactions in perceiving a specific organisational change as threatening or not.

Extensive change research has focussed on dispositions related to either positive coping with change or negative resistance to change which fulfils managerial interests to establish interventions or control. One could argue that such change-oriented dispositional measures can be easily misused to stigmatise employees who score lower and treat such employees as barriers that hinder successful change implementation (del Val & Fuentes, 2003; Ford & Ford, 2010; Michel et al., 2013). This study shifts away from the dichotomised view of change-oriented dispositional constructs. Instead, this

study makes use of a broad personality taxonomy (i.e., the five-factor model, FFM; Goldberg, 1990; John, 1990; McCrae & John, 1992) that is theoretically robust and not exclusive to change so that this research can link to the larger body of OB and change literature rather than being siloed.

The overarching aim of this study is to obtain a better understanding of employees' experiences of ongoing change at work. The study goes one step further by examining whether the relationship between employees' attitudes to ongoing change and work-related outcomes differ according to the level of their personality profile, that is, openness to experience (OE). OE measures an individual's personality trait of proactive seeking and appreciation of new experiences (Costa, 1996). Of the five dimensions of FFM, the existing dispositional change research seems to suggest that it could be fruitful to investigate variables like OE and neuroticism in the context of understanding how personality contributes to employees' daily experiences of change. Neuroticism focusses on the negative side of people's natural tendency to worry and feel anxious in the context of organisational change (Costa & McCrae, 1992). In contrast, OE could be a fruitful moderator to explore the positive side of people's potential to enjoy or appreciate new ideas and experiences (Costa & McCrae, 1992; Goldberg, 1992) as part of their daily encounters of changes.

Therefore, as the final part of my model, and taking this study a step further to fully encapsulate the effect of employees' experiences of ongoing change on their work-related outcomes, I propose to explore the moderating effects of employees' OE on the effects of employees' attitudes to ongoing change on two work-related outcomes (job satisfaction and OCBO). Prior research has demonstrated that OE acts as a moderator, with interactional effects of OE and situational change factors on job satisfaction and OCB (Caldwell & Liu, 2011; Lipponen et al., 2008; Seppälä et al., 2012). To my knowledge, no prior studies have examined the proposed specific relationships,

exploring the moderating role of OE on attitudes to change with job satisfaction and OCBO under an ongoing change context.

Elements of the Study

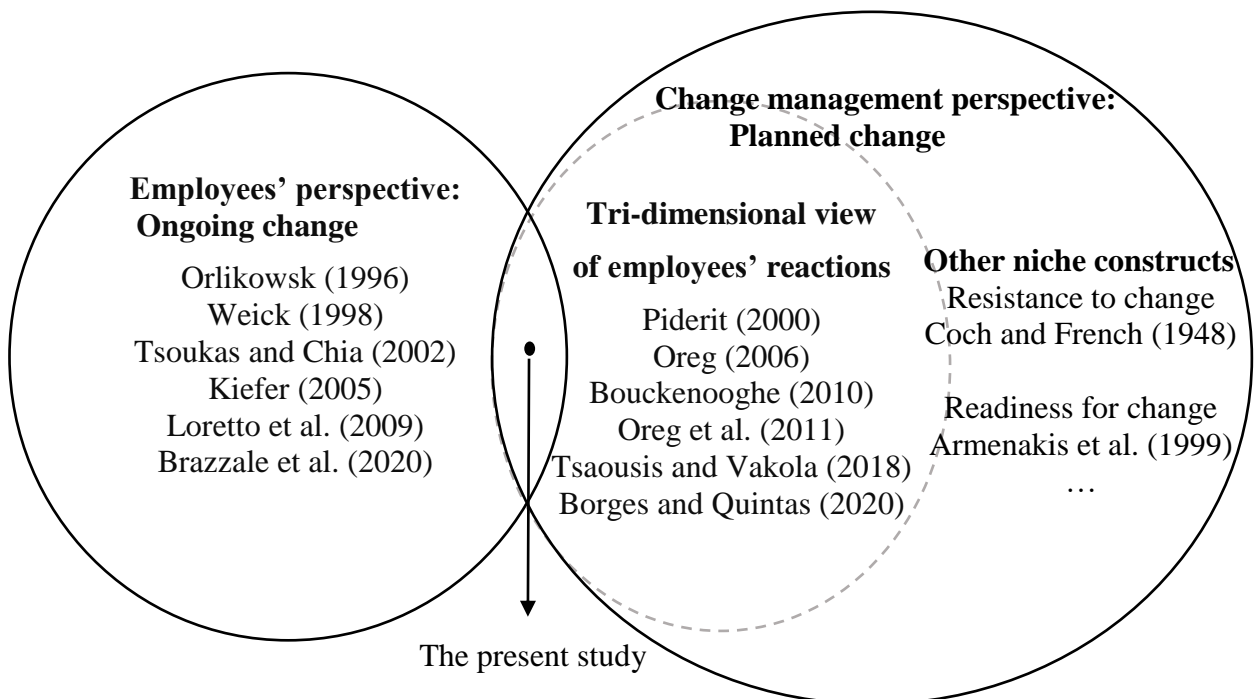
Broadly, this thesis seeks to understand the employees' experiences of ongoing change and relevant consequences. The aim of this research, then, is threefold: (a) to examine the suitability of the tri-dimensional approach to conceptualising employees' attitudes to change with the ongoing change perspective; (b) to examine the relationships between employees' attitudes to ongoing change and two work-related outcomes, job satisfaction and OCBO; (c) to investigate further whether such relationships may be moderated by individual's personality, namely OE.

This study lies at the intersection of two nascent approaches to study employees' experience of change at work. The study aligns with the emerging view of studying organisational change at the micro-level, to acknowledge that employees are experiencing ongoing and pervasive changes in their day to day work life. Formative works in this circle of scholarship include Tsoukas and Chia (2002), Kiefer (2005), and Brazzale et al. (2020). These scholars advocate for studying employees' attitudes to change in relation to their daily encounters of micro-level changes. The second nascent view is the tri-dimensional conceptualisation of change reactions within the larger sphere of planned change approach. This tri-dimensional view of reactions to change captures how employees feel, think, and intended to behave towards organisational changes. This broader conceptualisation is one view of change reactions utilised by a few empirical and review studies that captures the totality of employees' experience of change (e.g., Piderit, 2000; Oreg, 2006; Oreg et al., 2011), while others took a niche approach and examined specific types of reactions (e.g., readiness for change, resistance to change; Armenakis et al., 1999; Coch & French, 1948). This study bridged two emerging approaches where I adopted a tri-dimensional model to conceptualise

employees' experiences of ongoing change. In order to show the theoretical positioning of this study in relation to the broader change literature, I have constructed Figure 1 as a visual representation of how the present research relates to other scholars in the field, which are presented in chronological order.

Figure 1

The Theoretical Positioning of the Current Study: The Bridging of the Ongoing and the Tri-Dimensional view of Change

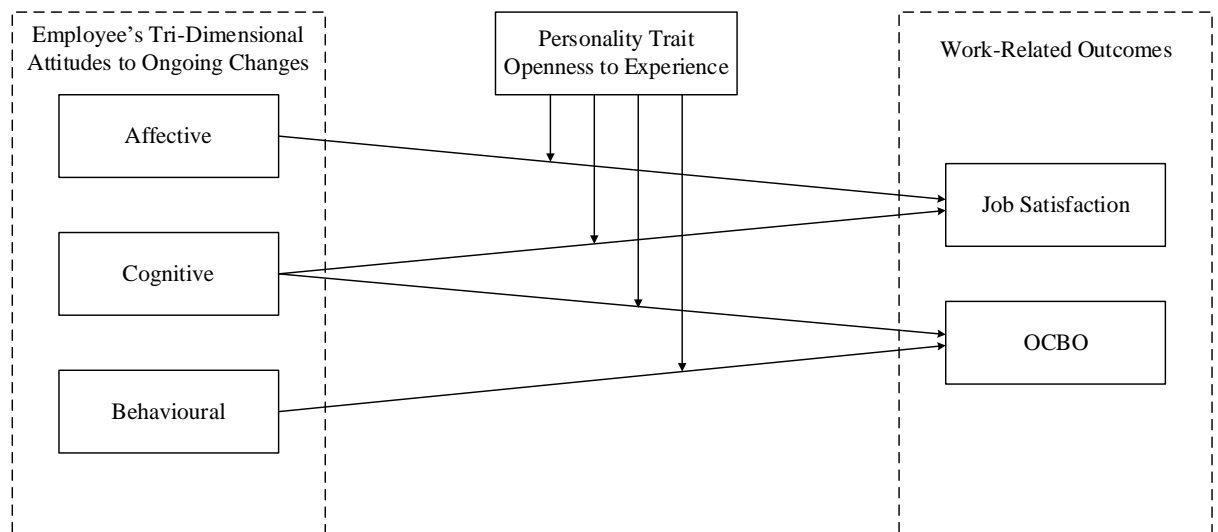


There is no prior study bridging these two bodies of research of ongoing change and the tri-dimensional conceptualisation of change reactions. Thus, the earlier research on planned change provides the contextual foundation on which I build the proposed model and hypotheses that guides the study I present here. However, this study extends existing research that has examined employees' attitudes to planned change by exploring employees' attitudes to change in the context of ongoing change and testing the proposed relationships between the personality and consequences through a quantitative (cross-sectional) study. I propose the following model illustrated in Figure 2 to incorporate the hypothesised relationships existing between the variables of the

interest that will be examined to answer the research questions of the present study. The study suggests that the tri-dimensional framework can be a fruitful model for conceptualising the broader level employees' attitudes to change, especially under the ongoing change context. Moreover, the study uncovers the differential effects of the components of attitudes to ongoing change in relation to specific types of work-related outcomes.

Figure 2

Model Showing the Relationships between the Tri-Dimensional Attitudes to Change and Work-Related Outcomes and the Moderating Role of Openness to Experience



In this chapter, I introduced the research context, research topic, and justified the relevant perspective and approaches taken for this present research. In Chapter II, this thesis begins with an overview of the current literature on attitudes to change constructs, which tend to focus on a planned change assumption and fulfils a managerial agenda to establish control. As a result, such a planned change approach hinders the breadth of our understanding of micro-level experiences of organisational change. Subsequently, I propose the use of a broader taxonomy of a tri-dimensional framework to conceptualise attitudes to ongoing change as it better serves the objective of capturing the aggregate effects of changes on employees' work-related outcomes. Then, I explore employees'

aggregate experience of ongoing changes at work by evaluating the relationships between the tri-dimensional attitudes to change and two work-related outcomes (i.e., job satisfaction and OCBO). Lastly, as prior research suggests, there is a dispositional component that may explain how people react differently in the face of change. The current study incorporates a personality trait to investigate whether the relationships between employees' attitudes to ongoing change and work-related outcomes differ based on employees' OE levels. Next, Chapter III outlines the research design, procedures, multi-stage data preparation consisting of data screening, and assumption checking prior to the regression analyses that test the study hypotheses. Chapter IV covers the progressive confirmatory factor analyses to examine the construct dimensionality of the proposed model and the details that the moderated multiple regression analyses to test the hypothesised main effects and moderation effects. Finally, Chapter V summarises and interprets the main findings, acknowledges the limitations, and offers future research directions.

CHAPTER II

Literature Review

Employees' Attitudes to Change

Employees' attitudes to change refers to a broad spectrum of states that employees experience during organisational changes (Bouckennooghe, 2010). These psychological states are shaped by the interaction between the individual employee and their dynamic working environment, including the organisational change present within it (Bouckennooghe, 2010). These psychological states have been measured as attitudes, although researchers adopt different interpretations of the nature and scope of employees' attitudes to change, shaping how they measure this phenomenon. As highlighted in Chapter I, employees' attitudes to change is a highly disintegrated field, with little consistency in the terms used or their definitions (Bouckennooghe, 2010; Oreg et al., 2011). This piecemeal approach has left an ill-fitting jigsaw of attitudes to change constructs, each providing some unique insights, but the parts do not piece together into a coherent whole. Piderit's (2000) pioneering work on the tri-dimensional definition of employees' attitudes to change provided a broad framework that has been used in several recent reviews to systematically integrate the current understandings of the attitudes to change literature (Bouckennooghe, 2010; Oreg et al., 2011).

Mainstream change scholars have invested a great deal of energy to study employees' specific attitudes to planned change based on a consensus about the key role of such individual-level attitudes in determining whether the proposed change effort will succeed (Bartunek et al., 2006). Scholars are interested in determining whether a specific attitude, such as cynicism to change or readiness for change, predicts how likely the individual employees are to support or resist the proposed change effort. (Bouckennooghe, 2010). Researchers argued that many change initiatives failed to achieve their objectives not because of flaws in the initiatives but due to implementation

failures (Kotter, 1995; Schein, 1999). Change initiatives may fail during their implementation due to change leaders underestimating the critical role of employees' behaviour, which lies at the heart of any change process (Armenakis et al., 1993; George & Jones, 2001; Lau & Woodman, 1995). Thus, mainstream OD and change scholars studying employees' attitudes to change focus on addressing three issues, namely (a) what are employees' specific attitudes in the face of an organisational change initiative; (b) what are the antecedents and consequences of such attitudes; (c) what can change leaders do to manage or influence employees' perceptions and behaviours towards favouring the proposed change. (Caldwell et al., 2004; Choi, 2011; Fugate et al., 2008; Judge et al., 1999; Oreg, 2006; Rafferty & Griffin, 2006).

In the following section, I will briefly critique five commonly-cited niche attitudes to change constructs (i.e., resistance to change, readiness for change, openness for change, cynicism about organisational change, and commitment to change) (Bouckennooghe, 2010; Choi, 2011). The goal is to look at how well these existing niche attitudes to change constructs can be applied to capture employees' ongoing experiences of change at the micro-level. The limitations of these specific attitudes to change constructs will be discussed in detail which underpins the rationale for this current study employing a broad framework, namely Piderit's (2000) tri-dimensional conceptualisation of attitudes to change.

Existing Niche Constructs for Attitudes to Change

According to Bouckennooghe (2010), the extant attitudes to change literature lacks conceptual studies. Only 20% of the 63 articles they reviewed are conceptual works where more than 90% of them were limited to two constructs: resistance to change and readiness for change. Another review study conducted by Choi (2011) brought up four attitudinal constructs that frequently serve as key variables to represent employees' attitudes to organisational change: readiness for change, cynicism about

organisational change, openness to change, and commitment to change. Therefore, the following section provides the foundation of research to date on employees' attitudes to change by critically reviewing these five constructs to which researchers have paid scholarly attention in the organisational change context. I compare and contrast these five constructs for the purpose of assessing how well these existing constructs of attitudes to change capture the nature and scope of employees' experiences of changes at the micro-level. My analysis focusses on conceptual issues.

Resistance to Change. Resistance to change is probably the best-known among the various constructs within employees' attitudes to change. Resistance to change originated from a metaphor taken from physics, the restraining force that drives an object away, and applying this to consider how employees may be restrained from supporting an organisational change (Coch & French, 1948; Lewin, 1952). In spite of this common starting point, there are various conceptualisations of resistance to change. Some scholars view resistance to change as denoting a set of employees' intentions or behaviours that hinder the implementation of an organisational change (del Val & Fuentes, 2003). Others consider resistance to change as employees' natural psychological defences to maintain the status quo, hence, relevant training is needed to unblock their resistance and enable change to be adopted (Msweli-Mbanga & Potwana, 2006).

Despite these different conceptualisations of the exact nature of this "resisting force", there is commonality in that the essence of resistance to change is viewed as the intentional and behaviourally-manifested restraining force that hinders the successful implementation of a change effort (Bouckennooghe, 2010). Across these various ways of conceptualising resistance to change, most scholars have agreed that resistance to change exists on a continuum of intensity ranging from apathy (e.g., indifference) to passive resistance (e.g., withdrawal behaviours) to active resistance (e.g., voicing

opposing views) through to aggressive resistance (e.g., industrial sabotage) (Coetsee, 1999; Folger & Skarlicki, 1999). The influence of resistance to change penetrates throughout the literature on employees' attitudes to change. Moreover, it contributes towards positioning the rationale behind this line of studies to address two major issues: (a) the manageability of employees' attitudes to change and (b) ways to overcome resistance and instead generate employees' buy-in for the proposed change (Beer & Nohria, 2000; Palmer et al., 2017).

Readiness for Change. Readiness for change is defined as employees' evaluations, perceptions, and beliefs regarding the appropriateness (necessity and urgency) of, support for, and positive value (outcome) of a proposed organisational change (Armenakis et al., 1993; Armenakis et al., 1999). The concept of readiness for change has proven practical for designing change implementation processes (Bouckennooghe et al., 2009; Eby et al., 2000; Holt et al., 2007). Readiness for change emphasises cognitive aspects of employees' overall positive or negative evaluative judgement of the proposed change initiative (Bouckennooghe, 2010; Choi, 2011). Especially, Armenakis et al. (1993) made an effort to distinguish resistance to change from readiness for change by highlighting "Readiness is the cognitive precursor to the behaviours of either resistance to, or support for, a change effort" (p. 681).

Cynicism about Organisational Change. Cynicism about organisational change (Stanley et al., 2005) refers to a cognitive attitude that contains two elements: employees' pessimistic viewpoint regarding the viability and outcomes of a change effort and general mistrust in management, which derives from previous failed change efforts (Ferres & Connell, 2004; Wanous et al., 2004). Research shows that cynicism about organisational change is generally viewed as a state variable that is distinct from trait cynicism (Bommer et al., 2005). Once cynicism about organisational change is formed, it triggers a vicious self-fulfilling cycle where employees selectively validate

their cynicisms through past failures (Brown & Cregan, 2008). When cynicism about organisational change leads to failed implementation, the failure reinforces the cynical beliefs, and hence subsequent change efforts are even less likely to succeed (Bommer et al., 2005).

Openness to Change. Openness to change was first proposed as the willingness to support a specific change and feel positive emotions about the consequences of that change (Miller et al., 1994). Scholars adopting this definition view openness to change as reflecting both affective and behavioural components of employees' attitudes to change (Bouckennooghe, 2010; Devos et al., 2007; Miller et al., 1994). However, Wanberg and Banas (2000) argued that Miller et al.'s (1994) definition of openness to change comprised two distinct factors with different antecedents; as a result, the conceptualisation has been further refined to "willingness to accommodate and accept change" (Wanberg & Banas, 2000. p. 135). Researchers adopting this later definition view openness to change as synonymous with change acceptance that taps into both cognitive and behavioural components of attitudes to change (Axtell et al., 2002; Oreg et al., 2011). Moreover, some view openness to change as a condition that creates employees' readiness for organisational change (Axtell et al., 2002; Devos et al., 2007; Wanberg & Banas, 2000).

Commitment to Change. Commitment to change is defined as "a force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative" (Herscovitch & Meyer, 2002, p. 475). There are three types of commitment to change. Firstly, affective commitment to change refers to a desire to provide support for a proposed change based on the belief it is inherently beneficial. Secondly, normative commitment to change denotes a sense of obligation to provide support for the change initiative. Lastly, continuance commitment to change is where employees support the change due to their recognition of the excess costs of not

supporting the initiative (Bernerth et al., 2007; Chen & Wang, 2007; Cunningham, 2006; Herscovitch & Meyer, 2002; Meyer et al., 2007). The underlying core ideas of this conceptualisation suggest that beliefs about costs and benefits associated with the change (i.e., continuance and affective commitment) and pressure to follow norms (i.e., normative commitment) shape how employees intend to behave towards the change initiative. This conceptualisation of commitment to change strongly mirrors the theory of planned behaviour (TPB; Ajzen, 1987), which provides a theoretical rationale that links cognition (i.e., dimensions of commitment to change) with behavioural intentions or actions (Bouckennooghe, 2010).

Limitations of the Niche Constructs

At first glance, these five constructs can be simply divided into positive potential framing (e.g., readiness for change, commitment to change, and openness to change) and negative problem-solving framing (e.g., resistance to change and cynicism about organisational change). It is more obvious to notice the negative mentality of treating employees as barriers to be overcome that would otherwise hinder successful change implementation (Bouckennooghe, 2010; Seo et al., 2004). This negative problem-solving conceptualisation positions change practitioners and employees on opposing sides and takes the perspective of those in charge of implementing the change (Bouckennooghe, 2010). This tendency to dismiss employees' perspectives may undermine employees' legitimate reasons to resist, labelling them as disobedient and short-sighted, and stigmatising employees' attitudes to change (Nord & Jermier, 1994; Piderit, 2000).

Scholarly criticisms of such negative framing of the conceptualisation have paved a route for the alternative positive potential framing where the change construct focusses on opportunities for improvement and growth rather than threats to be removed (e.g., readiness for change, commitment to change, and openness to change). Drawing from my earlier discussion on power and knowledge, the language used in labelling

resistance to change and cynicism about organisational change is noticeable in that it favours the dominant macro perspective. However, I would argue that positive and negative framed conceptualisations are two sides of the same coin, because regardless of the types of framing, all of these five constructs focus on determining specific attitudes towards a planned change for the purpose of intervention.

Despite the variety of conceptualisations designed to capture unique aspects of employees' views of organisational change, at a broad level, these five commonly-cited constructs share similar conceptual and operational characteristics that do not approximate the nature of employees' ongoing experiences of change. The reviewed five constructs are rooted in the dominant planned change approach, and therefore embedded within the same macro-level assumptions and managerial agenda. These attitudes to change constructs focusses on understanding and intervening in employees' attitudes to a specific change event to secure a smooth and successful change implementation process.

As discussed in the planned change section in Chapter I, this means that these conceptualisations view organisational change from the macro-level as a planned event in which change occurs in a step-wise sequence. Therefore, if change is considered as an extraordinary event, employees' attitudes to change are considered in isolation without comparison to normal times. The primary goal of measuring employees' specific attitudes to the proposed change is to incorporate behaviour-based strategies that will alter employees' attitudes, foster positive behaviours during the unfreezing stage, so that employees will favour the change initiative (Bouckennooghe, 2010; Weick & Quinn, 1999). These attitudes to planned change constructs can be helpful and practical to prescribe managerial actions for the implementation of a single change (Nelson, 2003). However, the interest of the current study lies beyond the context of a

planned change, shifting away from prescribing managerial actions for a change event and seeking to better understand employees' ongoing experiences of changes.

As argued earlier (see Chapter I), employees may be experiencing multiple changes concurrently that require continuous adjustments, and this is a normal part of their work life (e.g., Brazzale et al., 2020; Kiefer, 2005; Tsouasis & Chia, 2002). Therefore, it is not appropriate to apply existing attitudes to planned change constructs to study employees' ongoing experiences of change at work because these do not capture the scope and nature of the phenomenon. For example, take an organisation that is restructuring along with implementing new IT and HR processes to achieve highly efficient structure and work-systems. In this case, an employee could have different attitudes toward these various organisational changes. Niche attitudes to change constructs fulfil managerial interests to predict employees' likely behaviours towards the specific change initiative, but it does not reflect employees' overall experiences of all the changes at work at a point of time.

This is a well-known dilemma called *bandwidth-fidelity* where researchers are faced with this dilemma when deciding the amount or complexity of information obtained through the measurement of the construct in a given space of time, ranging from wide to narrow (Cronbach & Gleser, 1965). *Bandwidth* refers to the use of a wide-angle lens to have constructs that capture the big picture; however, using this approach also implies a loss of detail. On the contrary, *fidelity* defines aspects of the issue more precisely, providing a zoomed in, detailed view of the phenomenon, but less resonance with broader research topics or interests. The bandwidth-fidelity dilemma has been debated in the personnel selection literature (Cronbach & Gleser, 1965; Hogan & Roberts, 1996), the workplace climate literature (Carr et al., 2003), attitude literature (Eagly & Chaiken, 1993), and in the attitudes to change literature (du Gay & Vikkelsø, 2012; Lau & Woodman, 1995). One point of agreement among these scholars is that

depending on the research interest and the breadth of the dependent variable one is interested in predicting, the appropriate breadth of the independent construct should be selected (Carr et al., 2003).

Many organisational change scholars apply specificity on the agenda and advocate studying specific attitudes to change, aiming to predict a more specific behaviour towards the proposed change, which are best served by a specialised niche approach (e.g., Axtell et al., 2002; Du Gay & Vikkelsø, 2012; Eagly & Chaiken, 1993; Lau & Woodman, 1995). Conversely in keeping with an emerging field of study (e.g., Brazzale, 2020; Kiefer, 2005), the current study is interested in studying employees' overall experiences of all the changes they encounter at work in predicting broader outcomes such as job satisfaction. Hence, the focus of the current study is best served by a broad framework, thereby, I introduce Piderit's (2000) tri-dimensional theorizing of attitudes to change.

Tri-Dimensional Attitudes to Change

Piderit (2000) proposed an influential framework for understanding employees' attitudes to change by integrating the tripartite view of attitudes from social psychology (Ajzen, 1987; Breckler, 1984). Attitudes to change is a tri-dimensional framework that reflects three different manifestations of people's responses to or evaluations of change: affective (feelings about change), cognitive (thoughts about change), and behavioural (intended change behaviours) (Breckler, 1984; Eagle & Chaiken, 1993; Elizur & Guttman, 1976; Piderit, 2000). The ancient trichotomy of thinking, feeling, and doing as three major aspects of human experience can be traced back to Greek philosophers (McGuire, 1969). The tri-dimensional theorising of attitude emerged to address the criticism of the overall positive or negative uni-dimensional evaluation which does not capture the complexity of the attitude construct (Allport, 1935).

The core assumption underlying the tripartite model of attitudes is that the three attitude components (affect, cognition, and behaviour) act as three distinct classes of reaction to the stimulus that vary on a common evaluative continuum that ranges from favourable to unfavourable (Allport, 1935; Breckler, 1984). Theoretically, some degree of intercorrelation is expected because all three components represent the experience of a single individual (Allport, 1935). People may also be motivated to maintain consistency in their attitudes, especially when the three attitude components are derived from one's cognitive representation of the attitude object (McGuire, 1969). However, many attitude scholars believed that the three components of attitude were products of different learning processes, which implies that they can operate with partial or even complete independence (Breckler, 1984; Greenwald, 1982). Breckler (1984) listed out the relevant learning mechanisms: (a) affect may be the product of classical conditioning (i.e., pairing an emotion with a trigger) as presence of the attitude object elicits the paired specific emotions; (b) cognition may develop through previous exposure to educational materials or communications; (c) intended behaviours may develop through the process of operant conditioning where certain behaviours are associated with specific consequences such as past reinforcements.

Moreover, Breckler (1984) provided empirical evidence that validated the tri-dimensionality of attitudes and also offered useful boundary conditions for the model. For instance, if the attitude object is present during the time of the measurement, since the three attitude components have distinguishable development roots, they will code differently and emerge as three distinct attitude components. However, if attitude responses rely on respondents' mental representation, imagination, or memories, such responses are mediated by one's cognitive system, resulting in all three measures primarily being linked with the cognitive component (Breckler, 1984).

Applying the tripartite model of attitudes to the organisational change context, Piderit (2000) described employees' attitudes to change as tri-dimensional attitudes comprising affective, cognitive, and behavioural components. According to Piderit (2000), the affective dimension refers to an individual's feelings, moods, and emotions about the proposed change, ranging from strong positive emotions, such as excitement, to strong negative emotions, such as anxiety. The cognitive dimension refers to an individual's beliefs or thoughts about a proposed change, ranging from strong positive beliefs, such as believing change will be beneficial, to strong negative beliefs, for example that change may not meet its aims. In the context of an anticipated organisational change, the third dimension is often treated as behavioural intent rather than current or past behaviours. Thus, the behavioural dimension refers to an employee's intention to act in ways that support or resist the proposed change. It ranges from positive intentions to convince others about the benefits of the changes to negative behavioural intents by discussing their concerns with others or asking their union to represent their views.

While Piderit's (2000) tri-dimensional framework of employees' attitudes to change arguably resolves the jingle-jangle fallacies in the field of change research (Oreg et al., 2011; Bouckennooghe, 2010), it is not without shortcomings. In particular, although in her original conceptual research, Piderit (2000) mentioned that the proposed model draws on the tripartite view of attitude theory from Ajzen (1984), the theoretical basis of the work is not explained further. More recently, two reviews that have drawn on Piderit's (2000) tri-dimensional framework as a means to integrate the scattered knowledge on organisational change, do so without justifying the theoretical background (Bouckennooghe, 2010; Oreg et al., 2011). Notwithstanding, both reviews have commented on the lack of robust conceptual work as a significant challenge for research into the topic of employees' attitudes to change. As such, while the model has

an attitudinal foundation, it is relatively atheoretical. While the lack of robust theory is acknowledged as an issue to be addressed in the long term, it is not the focus of the present study, which rather leverages the tri-dimensional framework as a mean for understanding employees' perspective of organisational change.

Comparison Between the Niche and the Broad Conceptualisations

Piderit's (2000) tri-dimensional model of attitudes to change captures the totality of the three major attributes of how employees' feel, think, and intend to behave towards all the changes. While the niche constructs of attitudes to change are not intended to encompass all dimensions in the same way, it is an interesting comparison to position the reviewed five niche constructs on the tri-dimensional framework as an opportunity to understand how each of them contribute towards the overall understanding of the attitudes to change literature. The visual representation illustrated as Figure 3, indicates that the five reviewed niche constructs of attitudes to change overlap or at least partly represent the tri-dimensional definition of employees' attitudes to change, but neither captures all three major attributes.

Resistance to change emphasises behavioural aspects of employees' attitudes to change (Bovey & Hede, 2001; del Val & Fuentes, 2003). Readiness for change (Armenakis et al., 1999) and an element of cynicism about organisational change (Wanous et al., 2004) capture cognitive aspects of employees' attitude to change. The nature of these three constructs, as behavioural and cognitive respectively, have received relatively more agreement among scholars, and thus are placed in the corresponding dimensions illustrated precisely using a pin-point icon (📍) in Figure 3.

For the two remaining often-used constructs, openness to change and commitment to change, their working definitions do not signal the specific attitude dimensions they fit with— affective, cognitive, or behavioural. Moreover, there are constant debates around the nature of these conceptualisations (e.g., Miller et al., 1994;

Oreg et al., 2011; Wanberg & Banas, 2000). Hence, the debatable positioning was illustrated as a question mark (?) in Figure 3. Some scholars argue openness to change, defined as change acceptance, taps into cognitive and behavioural aspects of attitudes to change (Axtell et al., 2002; Oreg, et al., 2011; Wanberg & Banas, 2000). In contrast, others focus more on the affective and cognitive dimensions (Bouckennooghe, 2010; Devos et al., 2007; Miller et al., 1994).

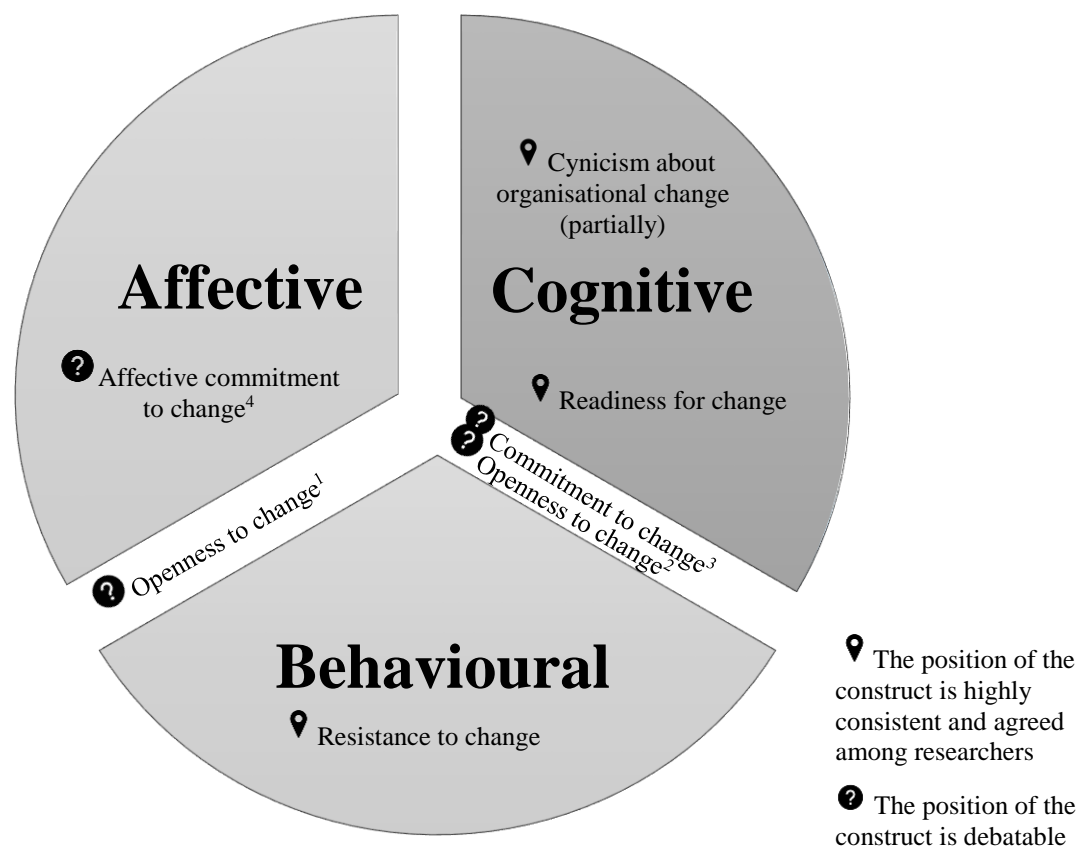
For commitment to change, this is another tricky construct for which there is no clear answer as to what the conceptualisation captures. Overall, according to its original definition, the construct is designed to explain the link between employees' cognition and behaviours towards change (Herscovitch & Meyer, 2002). Therefore, aligned with Herscovitch and Meyer's (2002) definitions of commitment to change, many scholars also described this construct in cognitive and behavioural terms (e.g, Bouckennooghe, 2010; Chen & Wang, 2007; Cunningham, 2006; Meyer et al., 2007). However, Oreg et al. (2011) specifically categorised affective commitment to change as affective attitudes to change in their review study. Furthermore, Oreg et al. (2011) pointed out that both commitment to change and evaluating costs and benefits of the change can be classified as antecedents of employees' attitudes to change. Thus, commitment to change may not match well with employees' explicit attitudes to change.

The positioning of niche constructs into Piderit's (2000) tri-dimensional framework indicates the current focus of constructs is weighted heavily on the cognitive and behavioural dimensions of attitudes to change. This suggests that employees' affective experiences of organisational change may not be fully represented in these niche attitudes to change constructs. Prior research provides evidence showing the importance of studying affect within organisational change contexts. For example, a range of emotions can be studied as immediate outcomes after organisational change implementation (e.g., change-related stress, fatigue, anxiety; Amiot et al., 2006; Martin

et al., 2005; Oreg, 2006; Paterson & Cary, 2002). Others looked at negative emotions as antecedents to predict employees' willingness to support or resist a proposed change (Fugate et al., 2002; Judson, 1991). A few studies have pointed out that the affective experiences of change importantly reflect employees' overall experiences of change at

Figure 3

Positioning of Employees' Attitudes to Change Niche Constructs in Relation to Piderit's (2000) Tri-Dimensional Model



Note.

1 – Scholars adopting Miller et al.'s definition of openness to change (1994)

2 – Scholars adopting Wanberg and Banas's (2000) definition of openness to change

3 – Scholars adopting Herscovitch and Meyer's (2002) definition of commitment to change

4 – Oreg et al. (2011) classified affective commitment to change into the affective dimension

work (Kiefer, 2005; Mossholder et al., 2000; Vakola et al., 2004). Specifically, Kiefer (2005) suggested that emotions are highly relevant in the ongoing change context because the more changes a person experiences at work, the greater likelihood of them experiencing challenging situations, which in turn may link with more negative

emotions. This suggests existing niche constructs, which capture cognitive and behavioural dimensions of employees' attitudes to change, provide a partial representation of these attitudes in that they neglect affect.

My discussion so far, and as represented in Figure 3, shows that—with the exception of Herscovitch and Meyer's (2002) tri-dimensional commitment to change—the majority of the attitudes to change constructs are uni-dimensional. Piderit (2000) criticised such an approach, with uni-dimensional constructs such as resistance to change presenting a dichotomy that embeds either a support or resistance to mentality, oversimplifying employees' attitudes to change. Thus, these uni-dimensional constructs neglect the complexity of employees' attitudes to change as employees' feelings, behaviours, and thoughts about the change may not necessarily coincide (Piderit, 2000). For example, an employee may cognitively think the proposed change is beneficial for the organisation but feel emotionally tired when considering the change. Furthermore, Nord and Jermier (1994) suggested that some antecedents may influence only what employees feel about change and not what employees think about change. Thus, uni-dimensional constructs are limited in failing to capture the varying relationships between attitudes to change and its relevant antecedents and consequences.

In contrast, Piderit's (2000) tri-dimensional framework draws from the well-established tripartite model of attitude, and it encompasses all three major aspects of human experience—affect, cognition, and behaviour. Therefore, it is likely to offer a better understanding of the relationships between employees' attitudes to change along with the antecedents and consequences. A summary table of the comparison analysis between the existing attitudes to change constructs presented in Table 1.

Table 1

Summary Table for the Comparison Between Attitudes to Change Constructs

Construct	The nature of the construct	Strength	Weakness
Resistance to change	Behavioural restraining force drives employees away from supporting the change	The earliest conceptualisation, most well-known	<ul style="list-style-type: none"> • Negative labelling, passive language • Uni-dimensional construct (behavioural) • Favours managerial perspective, planned change & intervention-based
Readiness for change	Cognitive beliefs about the change	<ul style="list-style-type: none"> • Positive reaction and positive labelling • Tapped into employees' cognitive process of sense-making 	<ul style="list-style-type: none"> • Uni-dimensional construct (Cognitive) • Favours managerial perspective, planned change & intervention-based
Commitment to change	Beliefs about costs and benefits of the change and felt pressure to follow the norm	<ul style="list-style-type: none"> • Positive reaction and positive labelling • Provides the underlying reasons of how cognition are linked to behaviours 	<ul style="list-style-type: none"> • Conceptual ambiguity, not clear whether behavioural or cognitive or both • Favours managerial perspective, planned change & intervention-based
Cynicism about change	Pessimistic beliefs towards the change and leadership abilities to enact the change	The construct provides a cognitive precursor for behavioural resistance to change	<ul style="list-style-type: none"> • Negative labelling • Not purely measuring employees' cognitive reaction to change • Favours managerial perspective, planned change & intervention-based
Openness to change	Change acceptance (Wanberg & Banas, 2000), cognitive and behavioural Change acceptance + positive affect of consequences (Miller et al., 1994), affective and cognitive	Positive reaction and positive labelling	<ul style="list-style-type: none"> • Conceptual discrepancy in definitions • Favours managerial perspective, planned change & intervention-based • Labelling (easy to be mistaken with the BigFive "openness to experience")
Tri-dimensional attitudes to change	Captures employees' emotions, thoughts and intended behaviours to organisational change	<ul style="list-style-type: none"> • Broader model: acknowledges the complexity of attitudes to change, allows unique predictions of outcome, richer understanding • Neutral language / conceptualisation 	<ul style="list-style-type: none"> • The trade-off between <i>bandwidth-fidelity</i> • Predominantly used in review studies, only in a few empirical studies

In sum, the bulk of the existing literature on attitudes to change focussed on the planned change context. This study aims to contribute toward addressing this gap by investigating employees' experiences of not one specific change, but rather the aggregate effects of multiple, additive, continuous changes at work. In the present study, I shift away from picking a niche construct, and therefore side-step the existing conceptual muddle. The niche attitude to planned change constructs, such as readiness for change, can be helpful and practical to prescribe managerial actions for the implementation of a single change (Nelson, 2003), yet they do not capture the nature of this study. The current study seeks to obtain a better understanding of employees' ongoing experiences of change at the micro-level.

In the current study, I adopt Piderit's (2000) tri-dimensional framework as it captures the three major aspects of any human experience and it uses neutral language. Moreover, the tri-dimensional attitudes to change has sufficient scope to allow complexity and ambivalence in employees' overall experiences of change (Piderit, 2000; Szabla, 2007). For example, enabling an employee to be both behaviourally active in implementing change even if, cognitively, they are not persuaded that change is worthwhile. Moreover, the three dimensions—*affective*, *cognitive*, and *behavioural*—provide researchers three distinct classes of information that not only paint a broader picture of the experience, but also allow the manifestation of unique relationships in the predictions of outcome variables that would otherwise remain hidden with uni-dimensional reconceptualisations (Chaiken & Stangor, 1987; Tsaousis & Vakola, 2018). Therefore, Piderit's (2000) tri-dimensional framework offers a more comprehensive understanding of employees' experiences of ongoing change and their relevant consequences.

While Piderit's (2000) tri-dimensional framework of employees' attitudes to change has featured in several review studies as an organising framework (Oreg et al.,

2011; Bouckennooghe, 2010), the model has rarely been examined in empirical studies. However, there are two exceptions to this, that is, studies by Borges and Quintas (2020) and Oreg (2006). For both studies, the researchers have discovered some unique relationships between the components of attitudes and relevant antecedents or consequences. For example, Oreg (2006) focussed on negative reactions and used the tri-dimensional framework to conceptualise resistance to change. He found a specific relationship between the affective component with job satisfaction but not intention to quit. This suggests that having negative emotions may decrease employees' job satisfaction, but may not influence intention to quit. Similarly, Borgest and Quintas (2020) revealed group pressure only impacted employees' behavioural attitudes to change but not the cognitive dimensions; whereas organisational readiness impacted employees' cognitive attitudes to change but not their behavioural dimension. Therefore, even though the tri-dimensional framework is empirically under-researched, there is some initial evidence to suggest that this is a fruitful approach to uncover a deeper understanding of employees' experiences of change.

Consequences of Employees' Attitudes to Ongoing Change

Under the dominant planned change approach, the focus is primarily on the implementation of a single change effort. Therefore, organisational-level outcomes, such as change success, are the most important, if not the only, goal that many organisations are trying to achieve during any change implementation (Burnes, 2011; Griffith, 2001; Hughes, 2011; Kump, 2019). As discussed in the previous section, the core assumption of the existing attitude to change literature is that employees' negative attitudes to planned change (e.g., resistance to change) act as a barrier that hinders the successful organisational outcome being achieved (e.g., Bartunek et al., 2006). For example, the failure or success of organisational change outcome has been reframed in terms of the degree of employees' buy-in (Griffith, 2001). Therefore, many empirical

studies in this line of research focus primarily on studying antecedents, such as change process (Holt et al., 2007; Oreg, 2006; Paterson & Cary, 2002) and employees' characteristics (Judge et al., 1999; Logan & Ganster, 2007), in an attempt to prescribe managerial actions to prevent employees' negative attitudes to change. Consequently, the relationships between employees' attitudes to change and work-related outcomes were treated as knowledge that was taken for granted.

Although empirical evidence on employees' attitudes to change relies heavily on cross-sectional case-studies (Evans, 2020), where each focusses on a specific change context, yet at the broader level most studies portray a similar storyline. That is, some antecedents of change reaction (e.g., communication, uncertainty, perceived pressure, planning of the change) impact employees' attitudes to the proposed change, which ultimately impacts organisational outcomes such as job satisfaction, organisational commitment, intention to leave, and OCB (Ferres & Connell, 2004; Rafferty & Griffin, 2006; Schweiger & DeNisi, 1991). Studies across a number of attitudes to change constructs have shown evidence of the positive relationships between employees' attitudes to a planned change and work-related outcomes. For example, readiness for change (i.e., cognitive beliefs) is positively correlated with job satisfaction (e.g., Holt et al., 2007). Similarly, openness to change (i.e., change acceptance) positively predicts job satisfaction but negatively predicts work irritation and intentions to quit (Wanberg & Banas, 2000). Cynicism about organisational change (i.e., pessimistic beliefs) predicts lower job satisfaction, organisational commitment, and OCB (Ferres & Connell, 2004). Some case studies have also shown that resistance to downsizing manifests in absenteeism, workplace deviant behaviours (e.g., sabotage and theft; Kozlowski et al., 1993), and decreased motivation, loyalty, and productivity (Cropanzano & Greenberg, 1997). However, empirical studies following the dominant approach only further confirm the presumed relationships without challenging the

underlying assumptions, which undermines the opportunity to understand the full breadth of employees' attitudes to change (Evans, 2020).

The current study departs from the typical planned change approach by examining employees' experiences of ongoing change through the lens of the tri-dimensional model. Prior research has given little attention to understanding the mechanism underpinning the relationship between employees' attitude to change and work-related outcomes. The current study distinguishes itself from the existing attitudes to planned change research, as I focus on the understanding of the aggregate effects of ongoing change on employees and how these link to work-related outcomes.

Overall, using the tri-dimensional model allowed me to address the second aim of the study, to examine the specific relationships between the three attitude components with different types of work-related outcomes, that is, job satisfaction and OCBO (Oreg, 2006; Piderit, 2000). According to the existing evidence of employees' attitudes to planned change, if a specific change is found to predict a work-related outcome, it is equally plausible to predict that the aggregate effect of all changes will have similar relationships with the work-related outcomes (Kiefer, 2005). Accordingly, it is expected that the aggregate effects of ongoing change may impact how employees think or relate to their job (i.e., job attitude) and how they decide to act in the workplace (i.e., work behaviours). This study focusses on two main consequences of employees' attitudes to ongoing change: job satisfaction and OCBO.

Job Attitude: Job Satisfaction

Aligning with the first part of the second aim, this study evaluates the associations between employees' affective and cognitive attitudes to ongoing change with their job satisfaction. Job satisfaction is one of the most studied and well-established constructs in organisational research. It is a topic of wide interest to organisations and their people because to some extent job satisfaction not only reflects

employees' psychological wellbeing but also organisational functioning (Spector, 1997; Weiss, 2002). An early definition offered by Locke (1969) has primarily focussed on affect and defined job satisfaction as an emotional state resulting from one's appraisal of the job or job experiences. Following Locke's definition, Cranny et al. (1992) described job satisfaction as an affective reaction to one's job, resulting from a cognitive comparison between actual versus desired job outcomes.

However, this affective reaction-based definition has been challenged by scholars who advocate conceptualising job satisfaction as an attitude (Brief, 1998; Weiss, 2002; Weiss et al., 1999). Job satisfaction viewed as a job attitude, along with other constructs like commitment or engagement, attempts to capture the way people experience and relate to their job that contains some degree of subjective evaluation (Judge et al., 2017). The widely accepted definition of job satisfaction put it as an overall evaluative judgement about one's job along a continuum from positive to negative (Weiss, 2002). The overall evaluation is typically associated with a joint influence of affective experiences at work and the cognitive assessment between the beliefs about the job against one's values (Fisher, 2010; Judge et al., 2017; Weiss, 2002; Weiss et al., 1999). In the original definition, Weiss and his colleagues made it explicit that both affective experience and cognitive belief assessment paths are equally important when individuals judge their aggregate job satisfaction as an overall attitude.

The conceptualisation of job satisfaction as an attitude, containing both affective and cognitive components, shows compatibility and consistency with Ajzen's (1987) classic tripartite model of attitude (Eagly & Chaiken, 1993; Fisher, 2010; Judge et al., 2017; Weiss, 2002). Several attitude researchers point out that the notion of evaluation lies at the core of attitude, hence, attitudes can be commonly viewed as summary evaluations of objects (Olson & Zanna, 1993; Petty et al., 1997). Therefore, the three classic components of attitude in relation to the object (affective, cognitive, and

behavioural) can be seen as different factors or types of attitudes that contribute unique classes of information towards making a summary evaluation of the object (Olson & Zanna, 1993; Petty et al., 1997; Weiss, 2002). Hence, when employees are assessing their job satisfaction, such overall evaluative judgement involves both affective experience path and a belief path, a point I will return to later.

Turning to the change literature, job satisfaction as a work-related outcome has been primarily examined in the context of planned change. For example, employees' attitudes to a specific change mediates the relationship of personality and contextual variables with job satisfaction (Oreg, 2003; Wanberg & Banas, 2000). Numerous empirical studies have documented the detrimental effect of change-related stress on employees' job satisfaction (e.g., Bordia et al., 2004). For example, some studies suggested that increasing employees' perceived control over change may yield more positive attitudes to the change initiative, ultimately lowering psychological strain and resulting in higher job satisfaction (e.g., Bordia et al., 2004; Martin et al., 2005). In other studies, employees perceived that negative change outcomes (e.g., greater workload) tend to increase change-related stress (Axtell et al., 2002), which ultimately lowers employees' job satisfaction (Hall et al., 1978). Only a few studies have considered employees' attitude to planned change as an antecedent and examined work-related outcomes as change consequences. For example, Wanberg and Banas (2000) found that employees' level of change acceptance to a specific change predicted job satisfaction. Similarly, Schweiger and DeNisi (1991) reported that negative attitudes to a planned change was associated with lower job satisfaction. Furthermore, some studies have also suggested that perceived benefits and positive outcomes from the change initiative (i.e., readiness for change) correlate with immediate post-change job satisfaction (Cunningham et al., 2002; Rafferty & Griffin, 2006).

Prior evidence suggested that employees' negative attitude towards a planned change reflects employees' negative experience of the change initiative, which in turn will negatively impact employees' judgements of their job satisfaction. Oreg's (2006) is the only study, to my knowledge, that also adopted the tri-dimensional framework in relation to resistance to planned change and predicting job satisfaction. Drawing on Spector's (1997, p. 2) definition of job satisfaction, "how people feel about their jobs", Oreg (2006, p. 83) emphasised job satisfaction as "a strong affective affinity". Although Oreg (2006) noted that other resistance components could also be associated with job satisfaction, he still assumed job satisfaction to be a purely affective-laden outcome in the study. Oreg (2006) hypothesised and found that the affective component of resistance to change negatively predicted job satisfaction. Unlike Oreg (2006), this current study aligns with Weiss's (2002) widely accepted attitudinal perspective of job satisfaction which captures both affect and belief aspects.

While job satisfaction has been identified as a relevant outcome of organisational change, to date it has not been explored as a consequence of employees' ongoing experiences of changes. The ongoing change paradigm adopted in this study focusses on the daily changes that employees encounter at the micro-level and presumes such constant adaptations and adjustments as a significant aspect of their work life (Orlikowsk, 1996; Tsoukas & Chia, 2002; Weick, 1998; Weick & Quinn, 1999). A few empirical studies have demonstrated that employees experience the accumulative effects of all changes that require constant adaptations at work (Brazzale et al., 2020; Kiefer, 2005; Loretto et al., 2009; Rafferty & Griffin, 2006). According to Kiefer (2005), logically it is equally relevant and feasible to predict that the aggregate effects of all daily changes should have similar effects on employees' job satisfaction compared with the impact of a single change.

As argued above, my study views job satisfaction as an overall attitude about one's job that consists of two assessment pathways where individuals draw information from their affective experiences at work and cognitively evaluate their daily work against their values (Weiss, 2002). According to Shadish et al.'s (2002) recommendation of testing a construct criterion-related validity, the components of tri-dimensional attitudes to change should be correlated with the outcome variable that they are intended to represent. In other words, according to the working definition of job satisfaction being an affectively- and cognitively-laden factor, this is most likely to be associated with the affective and cognitive attitudes to change. Therefore, I propose that employees' who feel more positive emotions about the constant changes required at work reflects a positive affective experience which in turn predicts higher job satisfaction. Moreover, employees who have positive thoughts about the ongoing changes at work may signal a cognitive alignment of their daily work with their values, which illustrates the second pathway predicting a higher job satisfaction (Weiss, 2002). Hence, it is hypothesised that:

Hypothesis 1 (*H1*): Employees' affective attitude to ongoing change will be positively associated with their job satisfaction.

Hypothesis 2 (*H2*): Employees' cognitive attitude to ongoing change will be positively associated with their job satisfaction.

Discretionary Work Behaviour: OCBO

The last part of the second aim evaluates the associations between employees' cognitive and behavioural attitudes to OCBO. Organisational citizenship behaviour (OCB) is defined as individual discretionary behaviour, not directly or explicitly recognised by the organisation's formal reward system, and that contributes positively to overall organisational effectiveness (Lee & Allen, 2002; Organ, 1988, 1997). Examples of OCB include helping colleagues, attending functions that are not required,

and defending the organisation when others criticise it (Lee & Allen, 2002). According to Weiss and Cropanzano (1996), work behaviours may be a result of employees' affective experiences at work or cognitive evaluations or judgements of the work. The attribution of affect and cognition has been debated at length in the OCB literature, resulting in two theoretical explanations behind the drivers for OCB. Organ and his colleagues suggest that OCB is a deliberate attempt by employees to maintain balance in the social exchange between themselves and the organisation, such that those who perceive they are treated fairly and well are more likely to engage in OCB (Organ, 1988, 1990). In this view, OCB is a cognitively-driven work behaviour, that is, OCB is primarily influenced by employees' cognitive evaluations. However, other scholars lean towards a more affect-driven explanation, based on well-established social psychology findings that people with more positive moods are more likely to demonstrate helping acts compared to those who are in neutral or negative moods (e.g., Broaden and Build Theory; Fredrickson, 2013). Therefore, in this latter perspective, affective experiences at work may trigger employees to engage in OCB.

Research distinguishes various OCB types such as altruism or courtesy (Organ, 1988). Here, we use the broad dichotomisation of OCBs based on whom the behaviours were directed at: individuals (OCBI) or the organisation (OCBO) (McNeely & Meglino, 1994; see also Organ, 1997; Williams & Anderson, 1991). Lee and Allen (2002) made further distinctions and shed light on the relative importance of affect and cognition in relation to the two types of OCB (i.e., OCBI and OCBO). They found that OCBO is more closely linked to job cognition than job affect, whereas OCBI is more closely linked to job affect than job cognition. This distinction shows consistency with prior work (McNeely & Meglino, 1994; Organ, 1990) where OCBO is a more deliberate cognitively-driven action triggered by reciprocity needs and OCBI is a more expressive emotional behaviour.

In change research, while most of the studies focussed on determining job performance as a change consequence, a few studies have examined OCB and found that employees' attitudes to a specific change positively predict employees' OCB (Chih et al., 2012; Cropanzano et al., 2003). Empirical studies also found that OCB is negatively correlated with resistance to change, a behavioural construct where people having a higher resistance to change tend to engage in less OCB (Beal et al., 2013). Carter et al. (2013) is the only study, to my knowledge, that tested OCB as a work-outcome in the continuous incremental change context, but not in relation to attitudes to change. They found that the quality of leader-member relationships explained the positive effect of transformational leadership on employees' level of OCB. This is consistent with prior evidence where ethical leadership positively predicted employees' OCB (Bormann & Rowold, 2016; Sharif & Scandura, 2014). Carter et al. (2013) also pointed out that when employees perceived a high frequency of constant changes required in daily work, there was a greater demand for leaders' assistance to elicit positive work behaviours, with OCB being one such behaviour.

The present study is interested in examining the aggregate effects of employees' experiences of ongoing change on OCBO. As argued in the introduction, OCBO is a more appropriate performance-related measure to investigate under the ongoing change context, because it reflects employees' discretionary work behaviours towards enhancing the functioning of the entire organisation. Compared to OCBI, which is oriented at the individual level, OCBO contributes positively towards all aspects of organisational-level functioning, that is more directly linked to organisational performance (Sun et al., 2007). Moreover, coherent with a broader approach, OCBO captures employees' positive behaviours towards all aspects of organisational functioning not solely change-related behaviours. To my knowledge, there is no prior study that examines the aggregate effects of ongoing changes on employees' OCBO.

Adopting the same logic discussed in the job satisfaction hypotheses. First, it is equally relevant and plausible to predict that the aggregate effects of ongoing changes should have similar effects on employees' OCBO with a single change (Kiefer, 2005). Therefore, it is plausible to expect that employees' attitudes to ongoing change positively predict OCBO. Second, according to OCBO's working definition, it is a cognitively-driven behaviour (Lee & Allen, 2002). As stated previously, I contend that OCBO is a work behaviour resulting from a person's cognitive evaluation of themselves and the working environment. Therefore, to test the criterion-related validity of tri-dimensional attitudes to change (Shadish et al., 2012), OCBO being a cognitively- and behaviourally-laden work-related outcome that is likely to be associated with cognitive and behavioural attitudes to change (Oreg, 2006). As such, I propose the following hypotheses:

Hypothesis 3 (*H3*): Employees' cognitive attitude to ongoing change will be positively associated with their OCBO.

Hypothesis 4 (*H4*): Employees' behavioural attitude to ongoing change will be positively associated with their OCBO.

Dispositions in Organisational Change Context

The overarching aim of the study is to provide a better understanding of employees' experiences of ongoing change at work. In the preceding sections of this chapter, I have built the arguments around encompassing the three broadest aspects of human experience, that is, the tri-dimensional framework, to capture employees' attitudes to ongoing change and then proposed examining the aggregate effects of all changes at the micro-level on employees' work-related outcomes. Past research has shown that employees are predisposed to perceive and react to organisational change differently (e.g., Cunningham et al., 2002; Judge et al., 1999; Oreg, 2003; 2006; Vakola et al., 2004; Wanberg & Banas, 2000). Thus, the study goes one step further by

incorporating a trait component, that is, OE to investigate whether employees' OE personality influences the effect of workplace experiences of ongoing change on two work-related outcomes (job satisfaction and OCBO).

Dispositions are individuals' psychological rather than physical or objectively assessed characteristics, which drive individuals' tendencies to respond in certain ways to situations (House et al., 1996). Dispositions is an umbrella term referring to personality traits, needs, attitudes, preferences, and motives with personality being the most stable among them (House et al., 1996). Personality has been defined as "dimensions of individual differences in tendencies to show consistent patterns of thought, feelings and actions" (McCrae & Costa, 2003, p. 25). Therefore, personality traits are stable characteristics that shape an individual's style of thinking, feeling, and behaving in response to the external environment, making each individual unique (Eysenck & Eysenck, 1985).

According to Costa (1996), personality helps HR practitioners to explain and predict individual differences in how people behave in the workplace. It fulfils occupational interests by predicting a range of work-related outcomes such as counterproductive workplace behaviours (e.g., Cullen & Sackett, 2003), job satisfaction (e.g., Judge et al., 2002), and job performance (e.g., Hurtz & Donovan, 2000). Therefore, HR practitioners have drawn heavily on the use of personality assessments for personnel selection and promotion process, leadership quality, performance evaluation, and training and development purposes (Goodstein & Lanyon, 1999). In an organisational change setting, personality assessments have been used for selecting change champions and change agents (Barrick et al., 2001; Mohan & Mulla, 2013), underscoring the relevance of personality to employees' attitudes to change.

Scholars have taken a dispositional approach to study organisational change, based on the premise that individuals are predisposed to perceive change differently, in

turn affecting how they respond across different change situations (Cunningham et al., 2002; Judge et al., 1999; Oreg, 2003, 2006; Vakola et al., 2004; Wanberg & Banas, 2000). Thus, while one branch of change research has focussed on contextual antecedents (e.g., leadership, change process; Adamson et al., 2006; Khan, 2006; Washington & Hacker, 2005), another branch of scholars following a dispositional approach has argued that it is equally crucial for change success to study the role of dispositions to predict employees' behaviours in change contexts (e.g., Judge et al., 1999; Oreg, 2003; Vakola et al., 2004). Change research taking a dispositional perspective often strives to answer questions such as: What dispositional factors make employees more or less likely to react positively or negatively towards the change?

Over the past years, the bulk of the studies mainly focussed on two constructs: Judge et al.'s (1999) coping with change (CWC) and Oreg's (2003) dispositional resistance to change (RTC). These two constructs target employees' natural tendency towards coping or resisting change in general. In the next section, I am going to first review the existing knowledge on dispositions in the change literature mainly focussed on the work around these two constructs: CWC and RTC. Then, I will discuss the rationale behind shifting back to broader personality factors and focus on one factor, that is, OE. Lastly, aligning with the third aim of the study, I will go one step further by developing related hypotheses for exploring whether the OE trait plays a role in moderating the relationships between employees' attitudes to ongoing change and their work-related outcomes.

Dispositions Related to Coping and Resisting

The existing change literature focusses on studying dispositions that explain the individual differences in coping or resisting change. This dichotomised focus of change response reflects a managerial interest in predicting employees' potential supporting or resisting behaviours towards organisational change. In Judge et al.'s (1999) work on

CWC, they perceived organisational change as stressors to employees. Thus, they proposed measuring individuals' psychological resilience to predict employees' ability to cope with and accept a proposed change (Judge et al., 1999; Wanberg & Banas, 2000). According to Judge et al. (1999), there were seven dispositional antecedents categorised into two broad factors closely linked with coping: positive self-concept comprising locus of control, self-esteem, and positive affectivity; and risk tolerance comprising OE, tolerance for ambiguity, and risk aversion. These two factors tapped into employees' perception of their ability to cope and their tolerance for risk and uncertainty, and jointly predicted individuals' ability to cope with organisational change.

Empirical studies have found that the internal locus of control positively predicts positive attitudes to a proposed change (Holt et al., 2007; Lau & Woodman, 1995; Näswall et al., 2005). Employees with a higher level of self-efficacy tend to have a higher level of change acceptance (Wanberg & Banas, 2002), readiness for change (Cunningham et al., 2002), commitment to change (Herold et al., 2007), and coping with change (Amiot et al., 2006; Judge et al., 1999; Martin et al., 2005). Tolerance for ambiguity positively predicts change beliefs and negatively predicts cynicism (Walker et al., 2007). Overall, Judge et al.'s (1999) work on CWC inspired change scholars to look into the seven dispositions as antecedents to explain individual differences in reacting to organisational change.

In contrast, Oreg (2003) was the first to propose a change-specific dispositional measure directly assessing individuals' tendencies to resist change in general not a given change. Thus, Oreg (2003) proposed a change specific dispositional RTC scale comprised of four factors: routine seeking, negative emotional reactions, short-term focus, and cognitive rigidity. Oreg and his collaborators (Oreg, 2003, 2006; Oreg et al., 2018; Oreg et al., 2008; Oreg & Sverdlik, 2011) have extensively evaluated

dispositional RTC in different situations and nation. Oreg's work on dispositional RTC rejects the notion that it is human nature to oppose change, but it showed that some individuals with higher RTC are more likely to resist change. Empirical studies suggest individual's dispositional RTC is associated with a variety of outcomes: occupational choices and interests (Oreg et al., 2009); the adoption of new technological advances (Nov & Ye, 2008); and intention or emotions to resist the proposed change (Oreg, 2006; Sverdlik & Oreg, 2009).

Shifting Away from Dispositions Related to Coping and Resisting

The studies reviewed so far have indicated that the current conceptual and empirical work on dispositions in organisational change context has been extensively focussed on dispositions related to either positive coping or negative resisting. Both CWC-related dispositions and dispositional RTC measures fulfil managerial interests to predict employees' innate behavioural tendency to cope with or resist organisational change (Judge et al., 1999; Oreg et al., 2009). These change-oriented dispositions may have useful, practical implications in terms of personnel selection (Oreg et al., 2009; Saksvik & Hetland, 2009). For example, in organisations expecting a high level of changes, these established change-related dispositions (e.g., dispositional RTC, locus of control, or routine seeking) could be useful factors to consider alongside skills and work experiences in promotion or selection process (e.g., Mohan & Mulla, 2013).

However, one could also argue that as scholars we should be cautious and responsible with the messages sent to the industry, as it may not be ethical to base selection decisions on tools that inflate the power of dispositional tendencies to predict actual behaviours (Michel et al., 2013). For example, the practical implication for RTC is concerning, and the reasons are twofold. Firstly, it is one thing to measure actual resistance, but it is something else to set out hypothetical scenarios and measuring how one might feel towards various future situations. Therefore, the measure promotes the

use of dispositional tendency to predict actual behaviours without considering the effects of contextual factors (e.g., Ford & Ford, 2010; del Val & Fuentes, 2003). Secondly, the dispositional RTC oriented towards individuals' innate tendencies towards resisting change assumes resistance is purely negative to the organisation. Thus, without taking a balanced view, the conceptualisation inherently judges employees' resistance as a barrier and assumes individuals' innate characteristics as the main source (Michel et al., 2013). This is ultimately not a helpful message for practitioners, as it first undermines that employees may have good ideas as to why change is not ideal.

Second, it assumes such natural tendencies to resist change are difficult to alter and external interventions may only have limited impact. Employees identified as naturally inclined to resist could potentially face risks like marginalisation and stigmatisation in terms of being treated as the source of resistance and the target for training and intervention. Therefore, studies that focus on dispositional constructs should be cautious when suggesting practical implications, because it is essential to acknowledge a wide range of situational factors that play a part in employees' experience of change.

As a further consideration, change-related dispositions contribute towards the problem of construct proliferation. As mentioned earlier, construct proliferation promotes a niche approach where studies developed around a specific construct offer unique insights but hinder knowledge integration (Podsakoff et al., 2016). For example, Oreg et al. (2011) offered a range of dispositional constructs that have been studied over the years in relation to change research, apart from the dispositions mentioned above, with the list including personal control (Martin et al., 2005; Paulsen et al., 2005; Wanberg & Banas, 2000), perceived behavioural control (Jimmieson et al., 2008); positive and negative affectivity (Begley & Czajka, 1993; Fugate et al., 2002; Holt et

al., 2007; Naswall et al., 2005); dogmatism (Lau & Woodman, 1995); helplessness (Fried et al., 1996); and rebelliousness (Holt et al., 2007). These niche constructs each provide insight into individuals' tendencies in the face of organisational change, but make it challenging to coherently connect the change literature and personality literature.

It is worth noting that, if a change-related dispositional construct were chosen along with other dependent variables such as change attitudes, one would expect to see higher correlations between variables and larger multicollinearity. This can be problematic as the more correlated the variables are, the more shared variance exists, making it difficult to separate the unique contribution of variance in the dependent variable by a specific independent variable, which deflates a study's power to make statistical inferences (Vize et al., 2018). For example, both CWC and RTC consist of negative emotional reaction and positive affectivity as components, respectively (Judge et al., 1999; Oreg, 2003). Thus, studies measuring such dispositional emotional reactions alongside affective reactions to a planned change may expect to get high shared variance, making it difficult to tease out the unique contribution of each component.

In summary, due to the limitations of change-related niche dispositions, this study aims to make meaningful connections between personality research and change research to explore the role of personality in employees' experiences of ongoing change. Therefore, I adopt the well-established and the broadest known personality taxonomy, that is, FFM. FFM has so far been proven as the most robust, reliable, stable, and evidence-based framework in the field of personality (Goldberg, 1990; John, 1990; McCrae & John, 1992). It is theoretically distinct and shares minimal variance with the employees' attitudes to change constructs. This ensures the knowledge integration across the change and personality fields while ensuring discriminant validity. FFM is

also not a change-related dispositional construct, and thus less likely to be oriented towards fulfilling managerial interests or intervention purposes.

The Global Personality Factor: Openness to Experience

The FFM hierarchical model of personality captures most human personalities into the broadest known level of five factors while remaining a comprehensive basis for relating personality to other constructs and phenomena (McCrae & John, 1992).

Research has demonstrated that core personality traits within FFM have shown high stability over time as compared to dispositions such as self-efficacy and locus of control, which are relatively more malleable across situations (Costa & McCrae, 1992; Goldberg, 1992; Judge et al., 1999; House et al., 1996). The FFM originated in McCrae and John's (1992) research, with the five dimensions labelled as OE (the proactive seeking and appreciation of new experiences), neuroticism (the tendency to experience negative affect), extraversion (the quantity and intensity of interpersonal interaction and activity level), agreeableness (the quality of one's interpersonal interactions), and conscientiousness (the amount of persistence, organisation, and motivation in goal-directed behaviour) (Costa, 1996).

Of the five dimensions of FFM, the existing dispositional change research suggests both OE and neuroticism as fruitful variables to investigate in the context of understanding how personality contributes to employees' daily experiences of change. Neuroticism focusses more on the negative side of people's natural tendency to worry and be anxious in the context of organisational change (Costa & McCrae, 1992). Indeed, neuroticism positively predicts negative attitudes to organisational change (Vakola et al., 2004). Indeed, Oreg et al. (2008) argued, on the premise that three out of the four factors in the dispositional RTC (routine seeking, emotional reaction, and short-term focus, but not cognitive rigidity) reflect a form of insecurity, that RTC should be most strongly correlated with neuroticism among the FFM factors. Saksvik and Hetland

(2009) supported Oreg et al.'s (2008) argument and found dispositional RTC is more correlated with neuroticism than OE. Therefore, as neuroticism taps into negative emotions such as worrying, nervousness, and anxiety (Costa & McCrae, 1992; Saksvik & Hetland, 2009; Oreg et al., 2008), the role of neuroticism in the context of daily changes could also be a valuable pathway to extend the literature of emotions in organisational change contexts (e.g., Kiefer, 2005). Future studies can certainly look into neuroticism or other dimensions of FFM to understand employees' experiences of ongoing change.

However, this study is interested in exploring the positive side of people's potential in change contexts. OE relates to people's tendency to enjoy or appreciate new ideas and experiences as part of their daily life including changes at work. As reviewed earlier, OE was found to be correlated with coping and adjustments where people with higher OE tend to utilise effective coping mechanisms in order to deal with stressful and dynamic situations (Judge & Bono, 2000; Judge et al., 1999; LePine et al., 2000; Thoresen et al., 2004). OE is also positively associated with employees' positive attitudes to planned change (Vakola et al., 2004; Wanberg & Banas, 2000). Moreover, as argued earlier that select OE, rather than the change-specific dispositional RTC, prevents stigmatisation by attributing faults to the innate quality of a person. This means people with lower OE are less likely to be stigmatised than people scoring higher on dispositional RTC, because OE is not designed to be change-related nor intended to make associations with change success. Therefore, this study focusses on OE's role to provide insights on the effects of employees' daily experiences of change on their work-related outcomes. The next section focusses on developing hypotheses around the proposed joint effects of employees' experiences of ongoing change reflected by attitudes as a state and employees' OE as a trait on the two work-related outcomes.

Openness to Experience. Individual differences in the ability to perform complex cognitive functions like divergent thinking and the tendency to proactively seek and appreciate new experiences are referred to as the fifth factor of the FFM global personality domain, OE (Goldberg, 1992; McCrae & Costa, 1992). OE is a global personality factor related to scientific and artistic creativity (Feist, 1998), divergent thinking, and political liberalism (McCrae & Costa, 1992). Some early theorists labelled this dimension “culture” (Norman, 1963). Today, some common labels used to describe this fifth global personality domain include “Openness to Experience”, “Openness”, “Intellect”, or “Openness/Intellect” (DeYoung et al., 2007; Saucier, 1992, 1994). While OE is one of the broadest personality domains, it contains several facets, with debate continuing as to the exact number, but ranging from two (intellect and openness; DeYoung et al., 2007) to six (tendency to fantasize (fantasy), sensitivity to art and beauty (aesthetic), awareness of one’s emotions (feelings), preference for novelty (actions), intellectual curiosity (ideas), and a tendency to be liberal in values (values; McCrae & Costa, 1992).

The diversity of traits linked to OE, and debate about OE’s nature, and differences in labelling, reveal OE to be a complex personality factor. There is some agreement on the overall content of OE, but different scholars emphasise different aspects. More specifically, scholars following Goldberg’s work, which is derived from lexical studies (“Intellect”; Goldberg, 1990), emphasise the cognitive forms of OE, including adjectives such as curious, creative, and intellectual. Other scholars follow Costa and McCrae’s (1992) “Openness to Experience”, which emanated from personality questionnaire studies, accentuating the tendency to seek novelty and capturing liberal thoughts. People high in OE tend to be more flexible, creative, and curious, actively seeking out experiences, being reflective and thoughtful about new ideas, approaches, and experiences they encounter; this is in contrast to people with

lower OE who tend to favour convention and stability (Costa, 1996; Goldberg, 1990; McCrae & Costa, 1992).

The Moderating Effect of Openness to Experience

The study's third aim is to investigate whether employees' OE plays a part in influencing the positive effects of employees' attitudes to ongoing change on two work-related outcomes of job satisfaction and OCBO. I propose that OE serves as a moderator that strengthens the relationships between employees' attitudes to ongoing change and two work-related outcomes.

People with high OE are more open-minded, flexible, curious, and creative than their counterparts (Digman, 1990). They actively seek new ideas, perspectives, and experiences rather than passive recipients of varied experiences (McCrae & John, 1992). Therefore, open individuals utilise their natural ease with changes to their advantage, allowing them to engage and enjoy situations filled with novelty, ambiguity, and constant adaptations (Costa, 1996; Goldberg, 1990; Judge & Bono, 2000; Le Pine et al., 2000; Thoresen et al., 2004; Vakola et al., 2004).

Some previous studies found that OE positively predicts people's job satisfaction at work and overall satisfaction with life (Judge & Larsen, 2001; Judge et al., 1999). Others argued that such a direct relationship between OE and job satisfaction is weak (Judge et al., 2002), but that OE's effect becomes more significant in dynamic and ambiguous contexts (LePine et al., 2000; Thoresen et al., 2004). Judge et al. (2002) found some direct associations between OE and job satisfaction. Still, they revealed that OE displayed the weakest correlations with job satisfaction of the FFM dimensions, with the association indistinguishable from zero (Judge et al., 2002). This finding suggests that OE only contributes to a small amount of variance in predicting employees' job satisfaction. Several studies have tested the effects of OE within organisational change contexts and found employees with a higher level of OE are more

likely to report positive attitudes to change and higher change acceptance (Judge et al., 1999; Oreg, 2003; Vakola et al., 2004; Wanberg & Banas, 2000). Caldwell and Liu (2011) found an interactional effect of employees' OE and perceived fairness on employees' job satisfaction levels in the organisational change context. Therefore, when people are facing greater demands of constant adjustments in novel situations, people with high OE use their imaginative and creative tendencies to their advantage to generate effective coping strategies, which enhances their overall experience of the dynamic situation (Costa & McCrae, 1992; George & Zhou, 2001; Judge et al., 1999; LePine et al., 2000; Thoresen et al., 2004).

Another important aspect of the OE personality domain is the orientation for curiosity, creativity, and learning contributing to individuals' proactive tendencies (Chiaburu et al., 2011). OE is positively correlated with the flexibility to initiate changes in workplaces (Whitbourne, 1986). Chiaburu et al. (2011) argued that OCBO requires employees to notice the need for action and relies more on employees' proactivity tendencies, especially under uncertain situations with unclear goals and means. Therefore, people with high OE may use their motivations for creativity and continuous learning to their advantage (Costa & McCrae, 1992) by actively creating varied experiences and proactively engaging with ongoing work changes.

Prior research found a weak to no direct relationship between an OE personality and OCB, but the role of OE becomes salient to predict OCB under uncertain situations, namely those devoid of external incentives, specified instructions, and demands for behaviours (Kumar et al., 2009; Organ & Ryan, 1995). Organ et al. (2006) stated, "openness to experience does not have a discernible relationship to OCB" (p. 82). Kumar et al. (2009) found some, but weak, associations between OE and OCB. Within the organisational change settings, George and Zhou (2001) found that the interactional effect between OE and positive feedback significantly predicted employees' creative

behaviours at work. Other studies used a similar measure of OE, namely openness to change values, and found an interactional effect between openness to change values and identification in predicting change-oriented OCB (Lipponen et al., 2008; Seppälä et al., 2012). Openness to change values highly correlate with the global OE personality factor (Roccas et al., 2002); it contains four items that each measure individuals' perceived importance in seeking creativity, agency, variety, and novelty in life (Bardi & Schwartz, 2003). Overall, people with high OE may use their curiosity, creativity, and motivation for learning (Costa & McCrae, 1992) to their advantage, to engage in proactive forms of OCB (LePine & Van Dyne, 2001) such as OCBO, knowledge sharing (Cabrera et al., 2006), change-directed suggestion making (Van Dyne & LePine, 1998), or constructive actions (Morrison & Phelps, 1999).

In summary, the study's third aim examines OE's moderating role on employees' attitudes to ongoing change and two work-related outcomes, that is, job satisfaction and OCBO. No previous study has directly examined these arguments. However, as presented above, earlier research suggested some evidence, albeit mixed, for interactional effects between OE and various situational factors related to change in predicting employees' job satisfaction and OCB (Caldwell & Liu, 2011; Lipponen et al., 2008; Seppälä et al., 2012). The current study extends earlier works by examining OE's moderating role on the aggregate effects of ongoing changes on employees' job satisfaction and OCBO.

Employees' experiences of micro-level changes are characterised as pervasive, ongoing, lacking explicit instructions, and ambiguous (Brazzale et al., 2020; Kiefer, 2005; Tsoukas & Chia, 2002; Van Dam et al., 2008). Based on the existing evidence, I argue that within these turbulent contemporary working contexts, often depicted as VUCA, employees are constantly encountering demands of ongoing changes filled with uncertainties and ambiguities. These demands require employees to continuously adjust,

create, and adapt to new approaches to work effectively. The psychological profile of employees high in OE suggests that they should be more receptive to novel experiences (e.g., daily encounters of changes), because they have an intrinsic interest in, and appreciation for, novelty and variety. This natural tendency allows them to have more access to new ideas and varied ways of coping effectively and allows them to enjoy the ongoing experiences of changes and learnings at work. Hence, high OE employees may utilise their creativity, curiosity, and motivation for learning to their advantage, reinforcing the effects of their ongoing experiences of changes at work measured by attitudes in predicting employees' job satisfaction and OCBO. Therefore, aligning with the third aim of the study, I propose:

Hypothesis 5 (*H5*): Employees' level of OE amplifies the association between employees' tri-dimensional attitudes to ongoing change with work-related outcomes of (a) job satisfaction and (b) OCBO; with these moderation effects occurring across all proposed relationships specified in Hypotheses 1-4.

CHAPTER III

Methods

Participants

Participants for the study were aged 18 and over who were U.S. residents and currently working at least 20 hours per week at an organisation in the United States (U.S.) ($M = 34.42$ years, $SD = 10.55$; range 18 – 77 years). There were 834 participants, 50.2% were male ($n = 419$), 48.8% were female ($n = 407$), and 1.0 % ($n = 8$) identified themselves as gender diverse. The average working hours per week for this group of participants was 39.12 hours ($SD = 8.16$; range 19-80 hours per week). In terms of tenure with their current employer, 18.9% of them have been working for up to 1 year ($n = 158$), almost half of them (49.1%. $n = 409$) had tenure between 1 to 5 years, followed by around 20% ($n = 167$) between 6 – 10 years, 6.8% ($n = 57$) between 11 – 15 years, 2.4% ($n = 20$) between 16 – 20 years, and 2.8% of them have been working for over 20 years ($n = 23$). For the estimated annual income before taxes, 5.3% of the participants had income less than \$10,000 ($n = 44$), 46.7% of them ($n = 389$) were in the \$10,000 to \$49,999 salary band, followed by 39.3% ($n = 328$) who were in the \$50,000 to \$109,999 salary band, 4.9% ($n = 41$) were in the \$110,000 to \$149,999, 25 participants (3%) had income over \$150,000, while 7 participants (0.8%) preferred not to answer. For the education level of this group of participants, 7.2% of them had high school qualifications, 9.7% completed around 2 years diploma education, 2.3% completed a professional degree, 19.4% of them completed some university qualification but not a degree, majority of the participants (43.2%) completed a 4-year bachelor's degree in university, 17.1% received a master's degree, and 1.1% of the participants had doctoral degrees.

In terms of participants' working context, most were entry-level employees (54%), followed by supervisor (24.3%), middle manager (14.5%), and senior/executive manager (7.2%). Participants worked in a diverse range of industries with the largest group from science and technology (23.4%); followed by retail and customer service (15.8%) and education (12.5%). Additionally, the majority were employed in a private for-profit company (70.6%) with a firm size of 1,000 or more (35.6%).

Sampling Procedure

The design and procedures of this master's research were reviewed by the Auckland University of Technology Ethics Committee (AUTEC) as part of the data collection of Helena Cooper-Thomas with her PhD student Paulette Brazzale and other postgraduate students supervised by Helena Cooper-Thomas. Approval was given on 31st October 2018, with reference number 18/401 "Employee responses to change at work" (Appendix F). Participants gave informed consent and could terminate their participation during the study at any time for any reason. This current study used a unique subsample from this larger research project. In the upcoming sections, I will use "we" referring to the joint data collection and the data cleaning procedures conducted on the entire dataset. I will switch to first person "I" in the assumption testing section as from that point onwards I conducted all procedures, including data analyses, focusing on this study's variables only (i.e., excluding other variables used for the doctoral study).

Sample Population

We collected our data in the U.S. because all of the instruments used in the present study were designed and tested in U.S. samples, whereas scale validations in other countries, such as New Zealand (NZ), are not available for all the scales. Hofstede's cultural dimensions research has highlighted the cultural differences in business research that may cause methodological flaws (Hofstede, 1980, 1993).

According to the organisational research method literature, when selecting a sample from a different cultural context, cross-cultural validation of the constructs and measurements is essential; failing to do so risks findings that are meaningless, inconclusive, or misguided for future researchers (Riordan & Vandenberg, 1994; Schaffer & Riordan, 2003). Thus, assessing constructs using a U.S.-based survey instrument in a non-U.S. setting without checking for cultural differences is unwise (Schaffer & Riordan, 2003). Since the interest of the present study does not lie in the cross-cultural perspective, and we were able to collect data from a U.S. sample using U.S.-developed instruments, this was a conservative decision that means we can have confidence that participants would understand the survey instructions and items.

Data Collection Platform

Prolific was chosen as the third-party platform to provide online participant recruitment for this study because it aims at providing data for scientific research purposes, and the platform takes heed for being ethical throughout the process of data collection. Clarity about rights, obligations, and compensation of participants in scientific studies not only fulfils the ethical requirements of the research but also creates trust for better relationships with the participants, which supports the validity of the results. Several scholars that are independent from Prolific have commented on Prolific's transparency, usability, and the quality of the data provided for academic research that outperforms other service-providers (Palan & Schitter, 2018; Peer et al., 2017).

Prolific has transparent payment rules such as a fixed minimum payment per unit of time required to complete a survey or experiment, return submissions thereby indicating that the participant wishes researchers to not use their data, and rejection guidelines which outlines the rights, obligations, and compensation regarding the treatment of participants in scientific research on the platform (Palan & Schitter, 2018).

According to Palan and Schitter (2018), other conventional crowd recruiting platforms such as MTurk often have limited information available for both participants and experimenters, which is troubling from a research perspective. The clarity and transparency provided by Prolific highlight the importance of the mutual obligation and responsibilities between participants and researchers. This is an ethical research practice as it ensures participants' rights are not exploited. Moreover, it also increases the validity of the result as participants are aware that researchers have the right to reject a submission that reflects low effort and careless responding, which ultimately influences participants' reputation score on Prolific (Palan & Schitter, 2018). Peer et al. (2017) empirically examined the quality of data collection through such platforms and showed that Prolific's participants are more honest compared to alternative platforms such as MTurk.

Furthermore, Prolific has a user-friendly interface for researchers to pre-screen participants along various dimensions, giving researchers more autonomy and control during the data collection process (Palan & Schitter, 2018). Participants are asked to provide some basic information when they sign up to the platform, which is independent of any specific study; this information can then be used by researchers as filters to reach their target population more easily. Palan and Schitter (2018) particularly praised Prolific's ethical practice and functionality in terms of providing pre-screening tools for researchers to aim at target demographics in a timely and user-friendly manner.

We proposed four filters in the current study to only include respondents who were U.S. residents, 18 years or older, worked 20 hours per week or more, in part-time or full-time paid employment. No participants are allowed to submit a response to the same study on Prolific twice; this avoids the issue arising on platforms that do not verify participants' identities, allowing them create multiple accounts and participate in the same study multiple times.

Online Survey Approach

The rationale for using an anonymous online survey are twofold. First, the study adopts the ongoing change paradigm which means that the study is interested in studying employees' experiences of changes characterised as being commonplace and ongoing, that is a normal part of people's work life (Brazzale et al., 2020; Kiefer, 2005; Tsoukas & Chia, 2002). Therefore, this study moves beyond the specific context of an organisational change and rather focusses on examining the aggregate effects of changes at work on employees' work-related outcomes. A well-known benefit of using an online sampling method is that it has a broader reach to the employed population across different working contexts. As the purpose of the study is to test the proposed relationships between employees' attitudes to change and their work-related outcomes, an online survey is more likely to produce context-free and general findings (Yilmaz, 2013).

Second, the online survey method is flexible and convenient. Employees' experiences with organisational change could be emotional or even sensitive to talk about in a conversation. Therefore, an anonymous online survey was purposely chosen to offer respondents a safe and open environment to provide their honest opinions (Evans & Mathur, 2005). The respondents can complete the online survey whenever and wherever it is most convenient without any influences and biases from the researchers (Evans & Mathur, 2005). Researchers can tailor the survey to suit customer demographic (e.g., American English), and obtain a large sample in a timely and cost-efficient manner (Evans & Mathur, 2005).

Participant Recruitment Process

The online survey was hosted on the Qualtrics software platform and linked through that to Prolific participants. Prolific respondents were notified about the study via email as well as in their Prolific account page as a newly published study. They

could access the Participant Information Sheet (Appendix A) and the details of research procedures when they logged in to their Prolific account. The consent form laid out the study requirements and instructions. If the participants met the criteria, they were eligible for taking this survey. The respondents were informed on the Participant Information Sheet that the survey would take between 16 and 22 minutes to complete. If they passed the careless response screening, they receive USD \$1.80 as compensation for their contribution.

Once the participants gave their consent to participate, they clicked a link that directed them to the Qualtrics platform to complete the survey. If the participants did not give their consent for the study, they were directed to an option where they could select “stop without completing” to exit the study. Participants who gave consent by ticking a box were directed to the instruction “switch off emails, messaging, and music” for concentration purposes and asked to provide their Prolific ID for payment purposes.

Please see the section titled Data Screen Strategies and Implementation below for detail on data selection and rejection criteria.

Design

Self-Report Survey

Employees’ overall daily experiences of ongoing change at work were the central interest of the study. Various approaches could provide data on employees’ perceptions of their ongoing experience of changes at work, such as conducting interviews. However, this study is interested in examining the suitability of using the tri-dimensional framework of attitudes to changes to differentially predict the aggregate effects of all changes on employees’ work-related outcomes. Therefore, the study followed a hypothetico-deductive approach: the use of a theoretical taxonomy (i.e., the tri-dimensional framework) and past observations from planned change contexts to generate and test the proposed hypotheses (Lawson, 2015). The goal of this method is to

derive practical knowledge to explain the relationships between employees' attitudes to ongoing change and their work-related outcomes under ongoing change contexts.

Hence, an appropriate method to obtain information is to measure employees' overall tri-dimensional attitudes to ongoing change they encounter at work via a self-report survey (Conway & Lance, 2010). As the nature of individuals' attitudes to change were individuals' perceptions as internal states, which are neither objective nor can be validated externally by others, using self-report measures is appropriate (Podsakoff & Organ, 1986; Spector et al., 2019; Van Selm & Jankowski, 2006).

Common Method Variance

Despite the suitability of self-report measures to match the research aim, researchers should heed the criticisms of this data collection method. Self-report measures have a potential risk of inflated or attenuated correlations due to common method variance. Campbell and Fiske (1959) originally identified this problem as systematic errors contributing variance due to using the same measurement method rather than variance being attributable to the construct of interest (Chan, 2009). Thus, the self-report method of data collection is capable of contaminating data and threatening construct validity, as well as distorting correlations if not managed appropriately.

To reduce the likelihood of systematic errors from common method variance, we proactively designed the study to mitigate against this using some of the procedural and statistical remedies outlined by Podsakoff et al. (2012).

First, we used different response scales to eliminate common scale properties. Method bias occurs to the extent that the question formats are perceived to be similar by respondents, because the similarity of the response format enhances the probability that cognitions generated in answering one question will be retrieved to answer subsequent questions (Podsakoff et al., 2012). Thus, we used frequency scales (e.g., “*never to*

always”) and agreeableness scales (e.g., “*strongly disagree to strongly agree*”) to minimise the scale properties shared by the measures of the predictor and criterion variables.

Second, the instruments were chosen to have some balance of positively- and negatively-worded items to reduce the risk of inflating or deflating correlation and regression coefficients. Even though this procedural remedy may not eliminate the occurrence of biases, it can effectively suppress its effect as the biases are now upward for half the items and downwards for the other half (Baumgartner & Steenkamp, 2001).

Third, we used a correlation-based marker variable as suggested in Podsakoff et al. (2012) that is theoretically unrelated to the variables of interest. This is a popular statistical remedy that has been taken up in recent years to minimise the risk of inducing pseudo-attitudes that are dominated by context effects, as it is relatively easy to implement (Lindell & Whitney, 2001; Williams et al., 2010; Williams & McGonagle, 2016). According to Simmering et al.’s (2015) recommendation, the selection of an effective marker variable should satisfy two key properties. First, the marker variable should be expected to share negligible or no substantively meaningful variance with the study variables. The second feature of a useful marker variable is to share the same sources of bias with the study variables and this is an important criterion that often gets overlooked (Simmering et al., 2015). This means that responding to the marker variable items should elicit similar cognitive processes or response tendencies as those prompted by the core study variables, thereby making it prone to the same sources of bias (Simmering et al., 2015). According to Spector et al. (2019), the nature of constructs plays a critical role in determining the sources of method variance. Most of the focal constructs of the study are perceptual and attitudinal in nature, therefore, we chose the information processing sub-scale (including four items) in the work characteristic instrument to be the marker variable for this study. This marker variable requires

subjective and perceptual responses, measures the degree of cognitive demands an individual perceives from his or her job (Morgeson & Humphrey, 2006), and therefore is theoretically unrelated to organisational change variables (see Measures section below).

Fourth, we placed the dependent variables (job satisfaction and OCBO) early in the survey before measuring independent variables to prevent respondents from anticipating the relationships being studied and adjusting their responses accordingly. The present study examined the relationships between employees' attitudes to change and relevant work-related outcomes. Placing independent variables early in the survey may prime the respondents to answer accordingly, for example to seek consistency between their attitudes and work-related outcomes, which in turn increases common method contaminants of illusory correlations (Lindell & Whitney, 2001). Therefore, biased estimates of the relationships induce method bias that inflates, deflates, or has no effect, which can lead to issues such as type I or type II errors that impede accurate hypothesis testing (Baumgartner & Steenkamp, 2001; Podsakoff et al., 2012; Siemsen et al., 2010). Hence, we placed dependent variables early in the survey to eliminate the possibilities that respondents would anticipate the studied relationships and answer accordingly.

Last, usually towards the end of the survey, responses are the most susceptible to response styles, peripheral cues, acquiescence, distortion in the direction of consistency with previous responses, and stereotypic responses (Lindell & Whitney, 2001). Therefore, items that require maximum attention and cognitive effort (dependent and independent measures) should be placed at the beginning of the survey to avoid transient mood states such as boredom and fatigue. We followed this recommendation. Moreover, personality measures were placed near the end of the survey as they require

relatively less cognitive processing and are less sensitive to the detrimental effects of fatigue responding.

Survey Piloting

We conducted the survey piloting in three phases. In phase one, five participants were recruited for in-house pilot testing. Two of the participants were selected for having English as a second language, to identify concerns regarding the items. They identified one ambiguous adjective, the item “deep”, present in the OE personality instrument (Saucier, 1994). Therefore, as a conservative approach, we added the next best adjective from the source study’s factor analysis (Saucier, 1994), namely “innovative”, as back-up in case “deep” proved difficult for participants to respond to. However, in the final analysis, “deep” performed well in the confirmatory factor analyses, and better than “innovative”, hence, we did not use this extra item and only used the eight items in the original instrument recommended by Saucier (1994).

During phase two, the in-house pilot testing team went through the survey as fast as possible. Among the five participants, the average time for clicking through the survey paying minimal attention to questions was around 4.7 minutes. The detailed screening criteria for low-quality data will be discussed in the subsequent section of preliminary analyses under data screening strategies and implementation section and includes a time criterion developed from this second phase of piloting.

The last phase of the survey piloting was the initial release, where five participants from the Prolific panel respondents were recruited. We were fortunate to capture two participants in situations that we had not considered previously. One participant was a U.S. citizen but currently working in Japan, whereas the other participant was currently working as a non-paid worker. Taking the focus and objectives of the study into consideration, we added two more filters that limited our respondents to be (a) U.S. residents and (b) paid workers on Prolific pre-screening criteria, in

addition to the two prior filters of being 18 years and above and currently working 20 hours or more. After these amendments to the pre-screening filters, the first 101 participants were recruited in this initial release phase and their response time was used also in decisions on a response time cut-off for data screening purposes (see preliminary analyses below).

Measures

The measures used in current study were sourced from peer-reviewed journals that have been validated with U.S. samples (Please see Appendix B for the full survey). The measures included below are directly related to the present study.

Employees' Tri-Dimensional Attitudes to Change (CRRE)

Employees' attitudes to change were measured using a three-dimensional (affective, cognitive, and behavioural) instrument named change recipients' reactions to change (CRRE), consisting of twenty-one items (Tsaousis & Vakola, 2018). Based on Raykov's (2004) suggestion that the hierarchical coefficient omega provided a more robust test for scale internal consistency, Tsaousis and Vakola (2018) preferred this over Cronbach's alpha index. Accordingly, the entire scale has excellent reliability as shown by the omega index of .97 that consists of emotional ($\Omega = .93$), cognitive ($\Omega = .89$), and behavioural dimensions ($\Omega = .90$). The three sub-scales of attitudes to change show correlations with a range of personal and contextual variables including personality traits, dispositional employability, job satisfaction, intention to quit, work engagement, work exhaustion, organisational readiness, and group pressure (Borges & Quintas, 2020; Fugate & Kinicki, 2008; Vakola et al., 2004; Wanberg & Banas, 2000). However, because this is a newly-established instrument, further validation is still necessary to endorse the construct dimensionality and instrument validity. As the present study is undertaken within a continuous change paradigm, the scale was modified to acknowledge that employees may experience multiple ongoing changes at their

workplaces. The modified scale included seven items for the emotional dimension (e.g., “*I feel uncomfortable with the ongoing changes that they are trying to implement.*”); seven items for the cognitive dimension (e.g., “*I believe that these ongoing changes will benefit this organization.*”); and seven items for the behavioural dimension (e.g., “*I will work longer hours to implement these changes successfully.*”). These items were measured on the same five-point Likert scale as used by Tsaousis and Vakola (2018) ranging from 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree nor disagree*), 4 (*agree*), to 5 (*strongly agree*).

Job Satisfaction

Job satisfaction was measured using an adaption of the Job Satisfaction Scale (Brayfield & Rothe, 1951) as used by Judge et al. (2005), which has acceptable reliability ($\alpha = .77$). There were five items including “Most days I am enthusiastic about my work” and “I consider my job rather unpleasant”. These were rated on a five-point scale ranging from 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree nor disagree*), 4 (*agree*), to 5 (*strongly agree*).

Organisational Citizenship Behaviour Towards Organisation (OCBO)

As the present study is primarily interested in OCB that benefits the organisation, only this component (OCBO) was used as per Lee and Allen (2002), which has good reliability ($\alpha = .88$). This measure has eight items measuring OCBO; sample items include “keep up with developments in the organization” and “offer ideas to improve the functioning of the organization”. These were rated on a five-point frequency scale ranging from 1 (*never*), 2 (*rarely*), 3 (*sometimes*), 4 (*often*), to 5 (*always*).

Openness to Experience (OE)

Participants were asked to review a list of eight adjectives from the OE subset of the Mini-Marker Scale (Saucier, 1994) and rate how accurate each is in describing their

characteristics at present. Saucier's (1994) Mini-Marker Scale is a robust subset of 40-items abbreviated from Goldberg's (1992) 100-item adjective markers (IPIP) Big-Five personality measures. The Mini-Marker Scale provides a shorter Big-Five marker set retaining adequate factorial robustness to extract five principal factors with eight items each. It is especially useful when the focus of the personality measure is not psychometric but investigating the Big-Five dimensions in relations with other constructs and outcomes (Gosling et al., 2003). This Mini-Marker Scale has a long heritage with 908 citations and has been used in research on organisational change specifically in an investigation of dispositional resistance to change (Oreg, 2003). It was selected based on its simplicity and robustness without sacrificing adequate scale reliability ($\alpha = .78$). Example adjectives are "creative", "imaginative", and "philosophical" (Saucier, 1994). These were rated on five-point response scale ranging from 1 (*extremely inaccurate*), 2 (*slightly inaccurate*), 3 (*neither accurate nor inaccurate*), 4 (*slightly accurate*), to 5 (*extremely accurate*).

Marker Variable: Information Processing Job Requirement

The information processing sub-scale of the work characteristics instrument was used as a marker variable (Morgeson & Humphrey, 2006), showing good reliability ($\alpha = .87$). This measure has four items asking participants' opinions on their current jobs, which reflects the amount of information processing that is needed at work. Sample items included "My job requires me to monitor a great deal of information" and "My job requires me to analyze a lot of information". These items were rated on a five-point Likert scale as used by Morgeson and Humphrey (2006), ranging from 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree nor disagree*), 4 (*agree*), to 5 (*strongly agree*).

Socio-Demographic and Working Context

Demographic information was collected in the survey, including participants' gender, age, education level, and gross annual income. For gender, participants could

select male, female, or gender diverse. For information about the participant's age, the survey asked the participants to select their birth year. The participants could select their highest level of education from eight categories ranging from less than a high school degree to a doctoral degree or an option of a professional degree. Finally, participants were asked their annual income before taxes for the past 12 months and they could select their income band in \$10,000 increments from less than \$10,000 to more than \$150,000, or they could choose not to answer if they did not wish to.

Information on participants' working context (tenure, seniority, firm size, industry, and sector) were collected to better describe the sample population. Participants were asked to identify their working hours on a complete scale from less than 20 hours to more than 80 hours per week. Then, participants were also asked about their tenure with their current employers on a scale from less than 6 months to more than 20 years. Lastly, participants were asked to select the industry, sector and the firm size of the current organisation they were working in.

Preliminary Analyses

Preliminary analyses are important to ensure data quality prior to testing hypotheses. This section consists of our implementation of the data screening strategies recommended by DeSimone et al. (2015) and the systematic multi-stage data cleaning procedures carried out. Then, I report a summary of the acceptable and rejected data, as well as the relevant statistical assumptions testing for the subsequent regression analyses covered in Chapter IV.

As mentioned earlier, the sample for this study was a subset of the data collected for a larger research project. More specifically, the sample directly relating to this study consisted of over 80% of the entire dataset. Therefore, the two initial phases of low-quality data screening were processed on the entire dataset, while lateral data processing

procedures and assumption checking were conducted solely on the variables relevant to the present study.

Data Screening Strategies and Implementation

While self-report data has advantages, as outlined above, one of the biggest concerns with self-report survey data is that researchers are unable to observe the data collection process for each participant, which raises concern that respondents may not be attentive when they respond. Despite the argument that removing data may raise concerns of loss of power, however, research method scholars believe that it is preferable over using data that have been proven to be low effort and low quality, which would lower the validity of the study (DeSimone & Harms, 2018; DeSimone et al., 2015; Meade & Craig, 2012). Fortunately, there are data screening methods that can help researchers to identify patterns of low-quality responding. I have incorporated multiple screening techniques recommended by researchers in organisational research methods (DeSimone et al., 2015; Meade & Craig, 2012), to provide a rigorous data cleaning procedure prior to testing hypotheses.

Phase One Data Screening. Three screening criteria were used in the phase one data screening. Responses that did not satisfy any one of the criteria (careless responding measure, exceptional fast response time, and low effort on the open-ended question) were identified as low-quality data and were rejected from the dataset.

The first criterion at phase one is a direct screening method, using instructed careless responding items in the survey (DeSimone et al., 2015; Meade & Craig, 2012). This assumes that if respondents are paying attention as they respond, they should be able to notice these. For example, for instructed response items, they should comply with the instructions by selecting a certain type of response (e.g., “*If you are paying attention, please respond “strongly agree” to this question*”). Therefore, respondents who did not comply with such items may be providing low-quality data. This technique

has been endorsed by Meade and Craig (2012) and was recommended because of its advantage of providing a direct measure for scoring correct or incorrect without doubts about interpretation. We followed the suggestion given by Meade and Craig (2012) and inserted one instructed item to capture careless responding for every 50 to 100 items, as a large number of instructed response items may appear excessive and risks annoying respondents.

The second criterion for phase one data screening was to inspect exceptionally fast response time, examining the pattern of response behaviours across the entire survey for fast responders, which may indicate a lack of effort or attention (DeSimone et al., 2015). A few studies have argued that exceptionally fast responses are assumed to be careless (DeSimone et al., 2015; Huang et al., 2012). For example, Meade and Craig (2012) found a nonlinear relationship between response time and response quality due to the absence of cognitive processing. In order to generate a minimum response time as a cut-off criterion which allowed for fast respondents but excluding those who were unlikely to be reading the items, we generated three response times based on three different methods and used the lowest thresholds for the study. First, based on Prolific's recommendation to researchers that cases were $3SD$ below the average response time are considered as statistical outliers, as generally $3SD$ should capture 99.6% of the response times (Cho, 2019; Cho & Lumsden, 2019). Thus, based on the initial release of 101 participants, a response time lower than 4.13 minutes was flagged. Huang et al. (2012) suggested a logical cut-off of 2 seconds per item criteria. This criterion assumes that it is highly unlikely that a respondent will spend 2 seconds or less on one item, and therefore for the entire survey a response time less than 7.1 minutes were suspicious. Lastly, we had asked five participants in the pilot study to click through the survey as fast as possible without attending to any of the questions which gave an average of 4.74 minutes. Of these three possible minimum times, it was decided to take the lowest cut-

off which is 4.13 minutes to be the threshold response time for the criteria of low-quality data screening that allows for fast respondents, but excluding those who were unlikely to be reading the items across the survey.

The third criterion was to include an open-ended question. According to Prolific's blog post suggestions to researchers, including an open-ended question in the survey can reveal low effort responding (Cho, 2019; Cho & Lumsden, 2019). Researchers should be alerted when open-ended questions received answers that are blank, typed random letters, or one-word only; all these indicate low effort responding which is an alert for low-quality data. We also informed the respondents in the Consent Form (Appendix B) that "Questions cannot be left blank" and careless answering would be rejected and may result in possible non-payment. As mentioned earlier in the ethics section, the data collection for this present study was also part of a larger research project. The open-ended question was not used in the present study, rather, it was only used as an indicator of data quality.

The total data collection included 1071 respondents who provided consent. We took a conservative approach and used multiple screening techniques recommended by DeSimone et al. (2015) as described above. In total, around 6.82% ($N = 73$) responses were identified as low-quality data, and therefore were removed in the first phase of data cleaning. Of these, 6.35% ($N = 68$) were removed due to meeting one or more of the three screening criteria mentioned above and 0.47% ($N = 5$) responses were removed due to over 30% of missing data. We first removed 43 participants who were identified by the careless instructed items, then additional three responses were removed due to an exceptionally fast response time. Lastly, the third screening criterion revealed additional 22 low effort responding on the open-ended item. For the five respondents with over 30% missing data, their minimum response time was around 57.68 minutes, hence, these were removed from the dataset.

By the end of phase one data screening, 73 responses were rejected which had not passed one (or more) of the screening criteria, or had missing data over 30% in phase one data screening procedures. This resulted in a sample of 998 participants.

Phase Two Data Screening. After the first phase of data screening, the total sample consisted of 998 participants. The phase two data screening procedures utilised two statistical screening techniques which emphasized consistency (e.g., Mahalanobis Distance (D)), and conformity to a normative response pattern (e.g. personal reliability) that were recommended in DeSimone et al. (2015).

First, Mahalanobis D statistics (Mahalanobis, 1936) were generated to compare each respondent's score to the sample mean across all responses for all the items in the survey. A response vector identical to the sample mean score of the item has a Mahalanobis D of zero, while high values of D indicate an extreme deviation from the sample means across the survey responses, thus, flagging the response as potential low-quality data (Meade & Craig, 2012). This statistical analysis identifies any extreme deviation from a normative response pattern which could indicate multivariate outliers or low effort responding (DeSimone et al., 2015). It is important to note that extreme outliers may influence the mean and increase the variance of survey items, and thus researchers are recommended to screen out responses at the top or bottom 0.1% of the chi-square distribution (DeSimone et al., 2015; Field, 2018).

Second, the personal reliability coefficient technique was used, which assumes that respondents are unlikely to fundamentally change their stance over a single survey (Jackson, 1976). The personal reliability coefficient assesses the consistency of a participant's responses across items in a survey. To compute a personal reliability index, we used the method recommended by DeSimone et al. (2015). To begin with, we ensured all items were scored in the same direction and then generated average scores for all the even and odd items for each variable. We computed the Pearson Product-

Moment Correlation Coefficient for the two sets of values of even and odd items; if they have a strong correlation, this indicates consistency. Then, the Spearman-Brown prophecy formula (Brown, 1910; Spearman, 1910) was used to yield the personal reliability index with higher consistency within responding resulting in a high value for the personal reliability index. Thus, as recommended by Johnson (2005), respondents with personal reliability index values below .30 were screened out to maintain the overall quality of the data and the power of subsequent statistical analyses. It is worth noting that the personal reliability technique is most suitable for use with surveys containing a large number of unidimensional scales, which is the case for the present study (DeSimone & Harms, 2018; DeSimone et al., 2015).

Data screening techniques differ in their focus and methods used to flag participants. According to DeSimone and Harms (2018), it is best to use more than one data screening technique as different statistical screen techniques tap into different focuses. Altogether, we identified 34 cases that exceeded the thresholds for either extreme Mahalanobis D or low personal reliability index or both. We removed these suspicious cases as they could be the source of low-quality data, noting that extreme outliers can pose a significant risk to the reliability and validity of the statistical inferences produced by a study. Therefore, 34 cases were removed from the dataset by the end of phase two statistical data screening procedures, resulting in a sample of 964 participants.

This dataset consisted of respondents ($N = 964$) both experiencing one or more organisational change(s) currently in their workplaces and also respondents who were not experiencing any organisational change at work. The sample directly related to the interest of this present study were employees currently experiencing change(s) at work, which consisted of 87.86% ($N = 847$). Thus, further data processing procedures and assumption checking were conducted solely on the variables relevant to the present

study, on the sample of 847 participants who are currently experiencing some amount of change at their workplace.

This next section focusses on assumption testing relating to the analyses to be conducted and are conducted on only those variables used in the present study (i.e., excluding other variables used for the doctoral study).

Outliers

Multivariate outliers were examined a second time by conducting Mahalanobis *D* analysis for the items solely relevant to my study. This identified a further nine extreme cases with the probability of their Mahalanobis *D* lower than .001 (DeSimone et al., 2015). At the item-level, outliers were examined with box plots and standardised scores (z-scores) according to the criteria provided by Field (2018). As such, z-scores exceeding ± 3.29 standard deviations from the mean were considered to be potential outliers as there is only 0.1% probability that a score will lie outside of that range in a normal distribution. Any scores identified in this way require further investigation to see if they are actual outliers. There were seven outlying responses with z-scores ranging from -3.30 to -3.70, with all of them present in the openness items. Inspection of these data points suggested that they were not input errors but fell within the response scale bounds (Aguinis et al., 2013), as would be unexpected with an online survey. There were three common cases identified by both methods (nine from Mahalanobis *D* and seven from standardised z-scores), therefore, altogether 13 potential outliers were identified.

Regression analyses are sensitive to outliers; hence, it is important to inspect to what extent these outliers influence the results of the regression analyses and make informed decisions as to whether to drop these outliers (Evans, 1999). Following Hoaglin and Welsch (1978), inspection of the changes in standardised beta weights and the overall model that fit with and without the potential outliers formed the basis of my

decision to keep or reject the 13 potential outliers. Therefore, I conducted multiple regression analyses with and without these 13 outliers to compare the differences in results. The detailed results of the regression analyses without the outliers are presented in Chapter IV and the relevant tables for the regression analyses with the outliers are presented in Appendix C. The regression analyses showed similar regression weights and significance values in predicting job satisfaction with and without these outliers. However, the outliers made Openness_intellect a very weak predictor, but on the boundary of being a significant predictor of OCBO in one of the proposed models ($p = .042$ in model 1; $p = .05$ in model 2); such significance was not observed for the sample without outliers. This suggested that, although the 13 outliers only comprised about 1.5% of the entire sample ($N = 847$), these outliers may have inflated the correlations between Openness_intellect and the dependent variable OCBO and contributed to a type I error, moving it to the boundary of being significant. Therefore, considering these minor differences with the removal of the 13 outliers prevents inflations in results that ensure the validity of the regression analyses. Therefore, these 13 outliers were deleted from the dataset and the final sample reduced to $N = 834$.

Normality

Variables were inspected at both item- and scale-levels for normality (Tabachnick & Fidell, 2014). Significant Kolmogorov-Smirnov (K-S) tests indicated that the sample distribution was significantly different from a normal distribution for all item-level variables ($p < .001$). However, according to Field (2018), the K-S tests can be sensitive, thus, normality was also examined using visual inspection of normal Q-Q plots and histograms, as well as analysing the skewness and kurtosis statistics.

For the three attitudes to change scales, all cognitive items were moderately and negatively skewed, whereas all the behavioural items were approximately symmetrical, as well as the majority of the affective items except for one negatively skewed reverse-

scored item. For job satisfaction, all the items presented a moderately negative skew whereas for the majority of the OCBO items they presented in a relatively symmetrical distribution except one item presented with a slight negative skew. For OE, all the non-reverse coded items showed moderate negative skew the two reverse-scored items had a severe negative skew. One item (“unintellectual”) was leptokurtic with extreme kurtosis (4.86) and skewness (-1.99) statistics. While the other reverse-coded item (“uncreative”) was platykurtic with slightly extreme kurtosis (0.79) and skewness (-1.21) statistics.

At the scale level, all K-S tests were significant at $p < .05$. The scales for employees’ cognitive attitudes to change, job satisfaction, and the creativity dimension of openness were negatively skewed with moderate skewness ranging from -0.625 to -0.804. The scales for employees’ emotional and behavioural attitudes to change, OCBO and the intellect dimension of openness all followed a more symmetrical normal distribution with skewness within ± 0.5 range. Inspection of the scale-level histograms showed, the distributions were all somewhat flat or namely platykurtic. The histograms of employees’ behavioural attitudes and the creativity dimension of employees’ openness measure were both slightly bimodal while the rest of the variables displayed a unimodal distribution.

A minor violation of the normality assumption can be compensated by a large sample size or overcome by using a robust method of bootstrapping to generate a confidence interval (Field, 2013). Field (2013, p. 249) referred to a sample size of 810 being “a very large sample size”. This study has a very large sample size ($N = 834$), but as a conservative approach bootstrapped confidence interval were generated to provide additional robustness checks. Therefore, analyses proceeded on this basis inspite of minor violation of assumptions.

Linearity, Independence, and Homoscedasticity

Visual inspections of the residual scatterplots together with the Durbin-Watson tests allow thorough examination of the serial correlations between errors, the assumptions of linearity, independence, and homoscedasticity of residuals (Durbin & Watson, 1992; Field, 2018). It is necessary to check whether the assumptions are met before conducting further regression analyses, as violations of assumptions such as heteroscedasticity can influence the statistical power and the generalisability of the results (Hayes & Cai, 2007).

The assumption of linearity was met as the scatterplots of job satisfaction and OCBO against all predictor variables showed relatively linear relationships. The assumption of homoscedasticity assumes the residuals at each level for the dependent variables should have relatively similar variance. This was assessed by drawing scatterplots of the standardised residual against the standardised predicted values for both job satisfaction and OCBO. The assumption of homoscedasticity has been met as the variation of the residuals for both dependent variables was evenly distributed. The assumption of independent errors means that for any two observations the residual terms should be uncorrelated. The validation of this assumption is important for the model standard error, the confidence intervals, and evaluations of significance. The Durbin-Watson tests demonstrated that the assumption of independent errors has been met as the test statistic value is close to 2, meaning the residuals are uncorrelated. The normality of errors can be checked with a histogram and a normal probability plot (P-P plot). With visual inspections, the distribution of the standardised residual for job satisfaction is slightly non-normal, but for OCBO both the histogram and P-P plot illustrated a normal distribution. Again, a minor violation of the assumption can be compensated by the large sample size of the study ($N = 834$) and robust bootstrapped confidence intervals.

Lastly, residuals were checked using casewise diagnostics and Cook's distances for evidence of bias. In a normally distributed sample, 99% of the cases are expected to have standardised residuals within about $\pm 2.5 SD$. There were 20 cases from job satisfaction and 17 cases for OCBO with standardised residuals outside the $\pm 2.5 SD$ limits, which exceeded the expected number. However, on further investigation using Cook's distance, none of the unusual cases had a Cook's distance value greater than one, thus, none of them were classified as an influential case that poses a threat to the statistical power of the overall model (Cook & Weisberg, 1982). Therefore, no further cases were deleted.

CHAPTER IV

Results

The overall hypothesised model investigates the relationships between employees' tri-dimensional attitudes to ongoing change and two work-related outcomes of job satisfaction and OCBO, with the role of employees' OE moderating these relationships. To formally test the construct dimensionality and the boundary conditions of the proposed relationships, confirmatory factor analysis (CFA), moderated multiple regression analyses, and a post-hoc relative weights analysis (RWA) were carried out. A summary of the CFA results for the proposed model is presented in Appendix D Table D1, and the revised CRRE instrument examined in the study presented in Table D2 (Tsaousis & Vakola, 2018). The study originally included a marker variable (i.e., information processing of job requirement) as a means of examining the common method variance of the study. However, it was unfortunate that the marker variable turned out to be significantly correlated with most of the study variables, which was unexpected as it is supposed to be a theoretically unrelated variable. Thus, the marker variable does not fulfil the assumption for conducting subsequent partial correlation analysis as the correlational marker technique recommended in Lindell and Whitney (2001). The relevant correlation matrix will not be included in this chapter, but instead listed in Appendix E Table E1. Limitations and future work related to the marker variable is discussed in Chapter V.

Relevant results are reported in the current chapter as well as figures and tables that illustrate the results against the hypothesised relationships. Even though the sample size is large enough to compensate for minor violations in the normality assumption, the present study is being carried out in a conservative manner. Thus, it is still worthwhile to conduct bootstrapping based on 1,000 bootstrap samples and generate a 95% bias-

corrected (BC) confidence interval (CI) for the estimates which provides additional robustness to the findings.

Confirmatory Factor Analyses (CFA)

CFA is a useful analytic technique to statistically determine the underlying factors that account for the variation and covariation among a set of indicators (Brown, 2015; Field, 2018). It is a parsimonious approach used to verify construct dimensionality and reveal the pattern of item-factor relationships that aid scale development (Brown, 2015; Tinsley & Tinsley, 1987). This study aims to test specific hypotheses derived from past conceptual and empirical foundations to establish the suitability of a tri-dimensional conceptualisation of employees' attitudes to ongoing change. Given the main relationships investigated in the present study were contingent on differentially predicting each of the outcomes, it was appropriate to conduct CFA. I used IBM SPSS Statistics (referred to as SPSS), version 26, to conduct these analyses.

The tri-dimensionality of employees' attitudes to change is endorsed by a number of change researchers (Borges & Quintas, 2020; Oreg, 2006; Piderit, 2000; Szabla, 2007), and it is drawn from the most prominent model of attitude theory and social psychology (i.e., the tripartite model of attitude; Ajzen, 1987; Breckler, 1984). However, the instrument (CRRE) used in the study to measure the tri-dimensional attitudes to change is a newly-developed scale, with the authors recommending further validation (Tsaousis & Vakola, 2018). Furthermore, the present study adopted the ongoing change paradigm requiring modification of the instrument accordingly from a planned change measure. Specifically, all items in the three sub-scales of the CRRE instrument, including the employees' affective, cognitive, and behavioural attitudes to change, were amended to be worded around "ongoing changes". The OE subscale was taken from Saucier's (1994) Mini-Marker Scale for the five-factor taxonomy of personality domains. The 40-items in the Mini-Marker Scale were designed to capture

the five global personality factors, but due to the interest of the study I only included the eight items related with the OE factor.

I took a conservative approach and conducted several CFA to gradually build towards validating all studying variables in the proposed model. First, due to the CRRE amendments and the instrument being relatively new, I conducted CFA on individual items for each of the three factors of attitudes to change (affective, cognitive, and behavioural), and then on the latent variable CRRE to verify the tri-dimensionality of the construct. Second, because OE has been selected as a subscale from the original five-factor instrument, I conducted another CFA on the individual items of OE to verify its dimensionality. Lastly, the instruments used for job satisfaction and OCBO are well-established scales that have not been amended in the present study, and therefore, I decided it was unnecessary to verify the job satisfaction and OCBO constructs separately. Hence, I conducted one last CFA on the total set of variables in the proposed model. At each stage, items should load on the expected factor at .30 or greater, and there should be no major cross-loadings between factors (i.e., the difference between primary and secondary loading should at least be .20 or greater), otherwise the items were deleted (Gaskin, 2012; Hair et al., 2009; Ibrahim et al., 2015).

The stability of factor analysis depends on sample size (Field, 2018). However, various rules of thumb exist to inform decisions on sample size, many of these being in the form of case-to-variables ratios, such as at least 10-15 participants per variable, or 10 times as many participants as variables (Nunnally, 1978). However, Arrindell and Van der Ende (1985) concluded that what mattered most was the overall sample size, and Tabachnick and Fidell (2014) suggested that sample size of at least 300 was sufficient to yield stable results. Given the large sample size in this study ($N = 834$), I can have confidence in the accuracy and stability of the CFA results.

To test construct differentiation between items, CFA analyses were performed using principal axis factoring (PAF) and oblique rotation (direct oblimin) for the sample ($N = 834$). PAF uses communalities, that is, the proportion of the common variance present in every variable (Field, 2018). In comparison to an alternative technique, principal component analysis (PCA) uses total variance in dimension reduction, which means the technique assumes no unique variance and no error where the total variance is equal to common variance (Field, 2018; Worthington & Whittaker, 2006). PAF is an appropriate dimension reduction technique to use for the present study because it assumes the total variance is the combination of the factors and residuals to allow the existence of error. Based on theory, an attitude is a psychological latent construct that researchers cannot directly measure, but rather will be measured with error, thus, the study used a set of items as indicators to capture the various dimensions of the psychological construct (e.g., Ajzen, 1987). Therefore, it was necessary to use communalities instead of total variance in this study to construct a parsimonious representation of the observed factors in the data. Moreover, types of rotations were chosen based on whether the factors are believed to be correlated (oblique) or uncorrelated (orthogonal) (Field, 2018). In social sciences and organisational research, oblique rotation is prevalent as the variables are often believed to be correlated (Field, 2018; Grande, 2014). Therefore, oblique rotation (direct oblimin) was chosen for this study because it allows the factors to be correlated.

To ensure the sample was adequate for analyses, the Kaiser-Meyer-Olkin (KMO) measures were examined, with values above .50 indicating sampling adequacy (Hutcheson & Sofroniou, 1999). Following the guideline suggested in Field (2018), multicollinearity was assessed by examining the determinant of the correlation matrix not exceeding 0.00001. A significant Bartlett's test of sphericity indicated the observed correlations were not obtained from a population with zero correlation. Following

Field's (2018) guideline, all factor analyses were conducted by selecting eigenvalues over Kaiser's criterion of 1 (Kaiser, 1974).

CFA for the affective, cognitive, and behavioural factors

Three separate principal axis factor analysis were conducted on the affective, cognitive, and behavioural factors with seven items each using oblique rotation (direct oblimin). The KMO measure verified the sampling adequacy for the analysis, the KMO for affective (.921), cognitive (.936), and behavioural (.883) were well above the acceptable limit of .5 (Field, 2013). The determinants for all three dimensions were greater than .00001 indicating no concern regarding multicollinearity for each of the dimensions (Field, 2018). Bartlett's test of sphericity was significant ($p < .001$) for all three dimensions. In each CFA, only one factor had eigenvalues over Kaiser's criterion of one and the visual inspection of the scree plots confirmed that one factor should be extracted for each dimension among the seven measured items. With the three factors analysed separately, each explained a large amount of variance in the items: the cognitive factor explained 73.665% of the variance, the affective factor explained 70.428% of the variance, and the behavioural factor explained 56.681% of the variance, which is slightly lower than the other two dimensions. This suggests that in comparison to the cognitive and affective items, the seven behavioural items are adequate but not ideal indicators for the behavioural factor.

CFA for the Latent Variable CRRE

Next, I looked at all three factors (affective, cognitive, and behavioural) of attitudes to change as a latent variable. The CFA was conducted on a total of twenty-one items with oblique rotation (direct oblimin). The KMO measure verified the sampling adequacy for the analysis, $KMO = .968$, which was well above the acceptable limit of .5 (Field, 2018). However, the determinant measure was less than .00001, indicating possible multicollinearity (Field, 2018). Bartlett's test of sphericity was significant

($p < .001$). Visual inspection of the scree plot showed an ambiguous point of inflexion: two factors had eigenvalues that exceeded one whereas the third factor was on the cut-off boundary suggesting that either two or three factors can be retained. When three factors were selected for extraction, affective, cognitive, and behavioural items were differentiated from each other apart from four cross-loading items, and these three factors accounted for 69.416% of the variance. When two factors were selected for extraction, the patterns of factor-loading were rather messier, the cognitive and behavioural items combined as one factor and differentiated themselves from the affective items, with eight unexpected cross-loading items, and accounting for 64.910% of the variance. Ultimately, the three-factor solution was retained for further analysis on the basis that it differentiated the three dimensions more clearly and explained slightly more variance.

In the three-factor solution, there were four cross-loading items. Cross-loading items may affect the overall reliability of the scales. According to our cross-loading criteria, although four items loaded on the expected factor greater than .30, all of them had major cross-loading with another secondary factor with a difference less than .20 (Gaskin, 2012; Hair et al., 2009; Ibrahim et al., 2015). Therefore, these four cross-loading items were removed, leaving 17 items. These items are indicated by italics in the final CFA results displayed in Appendix D Table D1. The same CFA procedures were conducted in SPSS for the remaining 17 CRRE items; these loaded cleanly across three factors, cognitive, behavioural, and affective with no unexpected loadings. However, further adjustments to the CRRE scale were required following a CFA on all items, this is discussed in detail later in this chapter.

CFA for OE Items

My focus was on one of the Big Five factors, that is, OE. This fifth factor of the FFM has been more contentious in its dimensionality. The nature of traits and

characteristics in this dimension are relatively non-observable (e.g., whether or not someone is imaginative) and less concrete (e.g., whether someone has broad interests) compared with more observable traits covered by other factors, such as being talkative (Nusbaum & Silvia, 2011). However, despite disagreement on the label of the factor, scholars from both sides agree that OE has more than one facet.

As past theoretical evidence suggested that OE had possibly two or as many as six facets, I used CFA to confirm the dimensionality of this eight-item OE subscale retrieved from Saucier's (1994) Mini-Marker scale. The KMO measure suggested sufficient sampling adequacy for both analyses with one or two factors extracted; KMO = .787. Bartlett's test of sphericity was significant ($p < .001$). Visual inspection of the scree plot showed that two factors had eigenvalue exceeding one, which suggests that two factors can be retained. Comparing a one versus a two-factor solution, the total variance explained was greater with two factors extracted, from 40.834% to 56.890%. The items "creative", "uncreative", and "imaginative" loaded onto one factor with absolute loadings ranging from .694 to .844 (Saucier, 1994). On the other hand, the items "deep", "philosophical", "complex," "intellectual", and "unintellectual" loaded onto a separate factor with the loading values ranging from .307 to .805 (Saucier, 1994). Ultimately, the evidence suggested a two-factor solution was better. To differentiate the two facets, I named them Openness_creativity and Openness_intellect. Although these eight items were designed to obtain one global OE factor, it was not entirely surprising as outlined in Chapter II that OE has these two broad aspects (DeYoung et al., 2007; Johnson, 1994). Therefore, the amended hypotheses are as follows:

Hypothesis 5 (*H5a*): Employees' level of the Openness to Experience Creativity facet amplifies the relationship between employees' attitudes to ongoing change and with work-related outcomes of (i) job satisfaction and (ii) OCBO.

Hypothesis 5 (*H5b*): Employees' level of the Openness to Experience Intellect facet amplifies the relationship between employees' attitudes to ongoing change and with work-related outcomes of (i) job satisfaction and (ii) OCBO.

CFA for the Proposed Model

The preceding section discussed the conservative steps in which I examined the dimensionality of the constructs and the validity of the instruments before building towards verifying the construct validity in the proposed model. Having revised the CRRE scale (removing four cross-loading items) and divided OE into two facets (Openness_creativity and Openness_intellect), therefore, I expect seven distinct factors for the proposed model. These were affective, cognitive, behavioural, job satisfaction, OCBO, Openness_creativity, and Openness_intellect. This will be assessed through a final CFA.

The same CFA procedures were carried out on the proposed model with a total of thirty-eight items. Surprisingly, three more CRRE items cross-loaded on other secondary unexpected factors. Two behavioural items cross-loaded on both cognitive and behavioural factors, and one affective item loaded on both affective and cognitive factors. After careful consideration against the cross-loading criteria, all three items were removed due to major cross-loadings (i.e., the differences between the primary and secondary loaded factor was less than .20; Gaskin, 2012; Hair et al., 2009; Ibrahim et al., 2015). For example, behavioural item "I will work longer hours to implement the ongoing changes successfully" loaded on both behavioural (.267) and cognitive (.209) factors with a small difference. The difference in loading is less than .20, which suggests that this is a major cross-loading. This item is problematic as it is not a clear and unique indicator of either the cognitive or the behavioural factor. This is a similar case for the other two items. Hence, the removal of three more CRRE items (i.e., two behavioural items and one affective items) ensured the overall reliability of the scales.

With the revised CRRE scale of 14 items consisting of six cognitive items, five affective items, three behavioural items, five job satisfaction items, eight OCBO items as well as the three Openness_creativity items, and five Openness_intellect items, the CFA showed improved results. The final round of CFA was conducted on a total of 35 items with oblique rotation (direct oblimin). The KMO measure supported sampling adequacy, $KMO = .939$. Bartlett's test of sphericity was significant ($p < .001$). Visual inspection of the scree plot confirmed the extraction of seven factors which accounted for 68.154% of the total variances. All the items loaded on the expected factor ranging from .403 to .894, exceeding the recommended criterion (Gaskin, 2012; Hair et al., 2009; Ibrahim et al., 2015). Refer to Appendix D which illustrated the results of the final factor analysis for the proposed model.

The final scale reliabilities of all variables in the proposed model presented in Table 2 show that Cronbach's alpha ranged from .706 to .934, which exceeds the recommended .70 value (Nunnally, 1978).

Descriptive Statistics and Correlations

Means (M), standard deviations (SD), bootstrapped bias-corrected and accelerated 95% confidence interval (BCCI), intercorrelations, and Cronbach's coefficient alphas (Cronbach's α) for the study variables are presented in Table 2 ($N = 834$). The correlation coefficients are expressed as Pearson's correlation (r).

For this sample of participants, Table 2 shows that the average scores for their affective ($M = 3.434$, $SD = .969$, BCCI 95% [3.368, 3.497]), cognitive ($M = 3.680$, $SD = .839$, BCCI 95% [3.624, 3.733]), and behavioural ($M = 3.200$, $SD = .876$, BCCI 95% [3.142, 3.254]) attitudes to changes happening in their workplaces are all slightly above the mid-point (the scale is from 1 to 5). This suggests that, on average, the participants have a slightly positive attitude towards ongoing changes. The mean scores for the two openness facets, Openness_creativity ($M = 4.090$, $SD = .791$, BCCI 95% [4.035, 4.144])

and Openness_intellect ($M = 3.958$, $SD = .615$, BCCI 95% [3.916, 4.000]), were both on the high-end of the scale. This indicates that for this group of participants, on average people tend to perceive themselves on the higher end of the spectrum for creativity and intellect aspects of the openness measure. Finally, regarding the dependent variables, the average scores of job satisfaction ($M = 3.594$, $SD = .864$, BCCI 95% [3.535, 3.657]) and OCBO ($M = 3.421$, $SD = .832$, BCCI 95% [3.360, 3.479]) for this group of participants were slightly above the mid-point. This suggests that on average this group of participants are slightly positive regarding their job satisfaction and OCBO.

I predicted that employees' affective and cognitive attitudes toward the ongoing changes in their workplace would be positively associated with their job satisfaction and employees' cognitive and behavioural attitudes would be positively associated with their OCBO (refer H1-4). Most of the study variables displayed moderate positive associations.

The results shown in Table 2 are in line with hypotheses: employees' job satisfaction had a moderate, positive relationship with both employees' affective attitudes ($r = .503$, $p < .01$) and their cognitive attitudes ($r = .517$, $p < .01$) to the ongoing changes. Employees' OCBO also had a positive and moderate association with both employees' cognitive attitudes ($r = .417$, $p < .01$) and behavioural attitudes ($r = .518$, $p < .01$) to the ongoing changes at their workplaces. These results support significant associations between the predictors and the outcome variables; however, specific hypotheses are tested using regression.

Table 2*Means, Standard Deviations, Intercorrelations, and Reliabilities for the Study Variables*

Variable	Mean (BCCI 95%)	SD	1	2	3	4	5	6	7
1 Affective	3.434 (3.368, 3.497)	.969	(.838)						
2 Cognitive	3.680 (3.624, 3.733)	.839	.677**	(.934)					
3 Behavioural	3.199 (3.142, 3.254)	.876	.391**	.624**	(.810)				
4 Openness_creativity	4.090 (4.035, 4.144)	.791	.108**	.125**	.123**	(.817)			
5 Openness_intellect	3.958 (3.916, 4.000)	.615	.081*	.148**	.114**	.438**	(.706)		
6 Job Satisfaction	3.594 (3.535, 3.657)	.864	.512**	.527**	.403**	.179**	.128**	(.895)	
7 OCBO	3.421 (3.360, 3.479)	.832	.235**	.423**	.528**	.184**	.160**	.568**	(.900)

Note. $N = 834$. * $p < .05$, ** $p < .01$, *** $p < .001$. Scale reliabilities (Cronbach's α) are on the diagonal. OCBO = Organisational citizenship behaviours directed at organisation. BCCI 95% (bias-corrected bootstrap confidence interval) is the robust bootstrapped confidence interval.

Moderated Multiple Regression Analyses

The concept of moderation, that is, an interaction between an independent and moderator variable, has a relatively long tradition in social sciences research (Dawson, 2014). Moderation proposes that either the strength or the direction of the relationship between the independent and dependent variables varies according to the presence of a moderator variable (Baron & Kenny, 1986; Dawson, 2014).

Moderated multiple regression (MMR) is a standard method of determining whether a moderating effect exists, which entails the addition of a linear interaction term in a multiple regression model (Jose, 2013). MMR is the chosen approach in the present study for testing hypotheses between the two continuous dependent variables (i.e., job satisfaction and OCBO) and three continuous independent variables (i.e., affective, cognitive, and behavioural), which are modified by two continuous moderator variables (i.e., Openness_creativity and Openness_intellect).

Multicollinearity is often introduced by moderated multiple regression, the issue being that the interaction is represented by the independent and moderator variables, and therefore correlations between any aspects of these, including error, will also be represented in the interaction. A commonly offered remedy is to transform the predictor variables through mean-centring before hypothesis testing, which involves, for the independent and moderator variables, subtracting for each its original mean value from all observed values to provide a distribution mean-centred on zero (Cohen et al., 2003). Mean-centring not only reduces nonessential collinearity between interaction terms and its components, but it also aids in the interpretation of the results in the regression analysis by giving a meaningful zero-point while it does not change either the overall regression model, nor the significance of the moderating effect nor the power of the MMR analysis compared to using raw score variables (Dalal & Zickar, 2012).

To investigate the direct relationships between employees' tri-dimensional attitudes on predicting their job satisfaction and OCBO, as well as the moderating role of employees' OE levels on these hypothesised relationships, I carried out a series of hierarchical multiple regression analyses separately for the two dependent variables, job satisfaction and OCBO. According to the criteria recommended by Dawson (2014), the test for moderation should consist of three components: the direct effect of the independent variables on the dependent variable, the direct impact of the moderators on the outcome variables, and the interaction represented as the product of the previous two terms. The moderating hypothesis is supported when the interaction effect is significant.

Therefore, all the first-order predictors were entered in Step 1, referred to as Model 1, to assess the main effects between the predictor variables (both independent variables and the moderator variables) and the outcome variables. Then, the interactive terms (the product of the predictor and the moderator variable) were entered as Step 2, referred to as Model 2, to be tested simultaneously with Model 1. This hierarchical method of regression is beneficial as it quantifies any improvement to the model at each stage via the R^2 value, with larger R^2 indicating a better model fit (Field, 2018).

For these analyses, Hypotheses 1 and 2 predicted that employees' affective and cognitive attitudes towards ongoing organisational changes would be positively related to employees' job satisfaction level. The first hierarchical regression analysis presented as Model 1 in Table 3 examined the association of employees' affective and cognitive attitudes towards the change with job satisfaction. The regression equation was statistically significant (R^2 change = .333; $F(4,829) = 103.680$, $p < .001$). An examination of the beta coefficients showed statistically significant relationships between the two predictors and job satisfaction (affective, $\beta = 0.282$, $p < .001$; cognitive, $\beta = 0.321$, $p < .001$). These results suggest that employees who have more positive emotions regarding the ongoing changes in their workplaces have higher job

Table 3*Results of Moderated Multiple Regression Analyses Predicting Employees' Job Satisfaction*

		Job Satisfaction				
		<i>B</i> (BCCI 95%)	<i>SE</i>	β	<i>t</i>	<i>p</i>
Model 1	Constant	3.593 (3.545, 3.644)	.025		146.636	.000***
	Affective	.246 (.180, .310)	.034	.282	7.312	.000***
	Cognitive	.279 (.206, .350)	.034	.321	8.247	.000***
	Openness_creativity	.093 (.029, .168)	.029	.103	3.246	.001**
	Openness_intellect	.012 (-.046, .069)	.028	.013	.414	.679
Model 2	Constant	3.592 (3.541, 3.647)	.025		144.353	.000***
	Affective	.248 (.182, .310)	.034	.284	7.314	.000***
	Cognitive	.280 (.204, .352)	.034	.322	8.155	.000***
	Openness_creativity	.095 (.031, .171)	.029	.105	3.296	.001**
	Openness_intellect	.013 (-.045, .069)	.028	.015	.456	.649
	Affective x Openness_creativity	-.049 (-.133, .024)	.040	-.054	-1.227	.220
	Cognitive x Openness_creativity	.002 (-.079, .091)	.038	.002	.060	.952
	Affective x Openness_intellect	.035 (-.054, .120)	.041	.040	.852	.394
	Cognitive x Openness_intellect	.023 (-.051, .099)	.038	.028	.619	.536

Note. *B* = unstandardised coefficient, *SE* = standard error, β = standardised coefficient beta, *t* = t-value. * $p < .05$, ** $p < .01$, *** $p < .001$. BCCI 95% (bias-corrected bootstrap confidence interval) is the robust bootstrapped confidence interval. Bootstrapping results are based on 1,000 bootstrap samples. Models predicting employees' job satisfaction. Model 1: $R^2 = .333$; $F(4, 829) = 103.680$, $p < .001$. Model 2: $R^2 = .337$; $F(8, 825) = 52.434$, $p < .001$.

satisfaction ($B = 0.246$, $SE = 0.034$, $t = 7.312$, 95% CI [0.180, 0.310]); and similarly employees who have more positive thoughts regarding the ongoing changes in their workplaces have higher job satisfaction ($B = 0.279$, $SE = 0.034$, $t = 8.247$, 95% CI [0.206, 0.350]). These results demonstrate support for H1 and H2.

Hypotheses 3 and 4 predicted that employees' cognitive and behavioural attitudes towards organisational changes would be positively related to employees' OCBO. The same analysis was conducted to test the hypotheses for OCBO as for job satisfaction above, but this time with employees' cognitive and behavioural attitudes as predictors. The results are presented as Model 1 in Table 4. The regression equation was statistically significant (R^2 change = .301; $F(4, 829) = 92.094$, $p < .001$). The beta coefficients demonstrated statistically significant relationships between the two predictors and employees' OCBO (cognitive, $\beta = 0.140$, $p < .001$; affective, $\beta = 0.423$, $p < .001$). These results have shown support for H3 and H4. This means that employees who have more positive thoughts regarding the ongoing changes they experience are more likely to engage in OCBO ($B = 0.117$, $SE = 0.031$, $t = 3.752$, 95% CI [0.048, 0.187]). Furthermore, employees who have more positive behavioural intent regarding the ongoing changes they experience at work are more likely to engage in OCBO ($B = 0.355$, $SE = 0.031$, $t = 11.426$, 95% CI [0.293, 0.421]).

Since I have discovered the two facets (Openness_creativity and Openness_intellect) within the openness factor in the preceding factor analysis section, I assessed the moderating roles of each facet separately. The final set of analyses referred to the investigation of H5 which is tested in two sets: (a) employees' Openness_creativity facet strengthens the relationships between employees' tri-dimensional attitudes to ongoing change and with work-related outcomes of (i) job satisfaction and (ii) OCBO; (b) employees' Openness_intellect facet strengthen the

Table 4*Results of Moderated Multiple Regression Analyses Predicting Employees' OCBO*

		Organisational Citizenship Behaviour directed to the Organisation (OCBO)				
		<i>B</i> (BCCI 95%)	<i>SE</i>	β	<i>t</i>	<i>p</i>
Model 1	Constant	3.416 (3.373, 3.460)	.024		142.141	.000***
	Cognitive	.117 (.048, .187)	.031	.140	3.752	.000***
	Behavioural	.355 (.293, .421)	.031	.423	11.426	.000***
	Openness_creativity	.080 (.028, .131)	.028	.092	2.852	.004**
	Openness_intellect	.044 (-.011, .101)	.028	.051	1.586	.113
Model 2	Constant	3.416 (3.371, 3.463)	.024		139.681	.000***
	Cognitive	.115 (.047, .190)	.031	.137	3.665	.000***
	Behavioural	.357 (.294, .420)	.031	.425	11.329	.000***
	Openness_creativity	.080 (.028, .127)	.028	.092	2.821	.005**
	Openness_intellect	.042 (-.013, .101)	.028	.050	1.527	.127
	Cognitive x Openness_creativity	.033 (-.052, .116)	.036	.036	.905	.366
	Behavioural x Openness_creativity	-.021 (-.090, .041)	.035	-.024	-.606	.545
	Cognitive x Openness_intellect	-.023 (-.106, .054)	.036	-.028	-.634	.526
	Behavioural x Openness_intellect	.013 (-.051, .081)	.035	.016	.377	.706

Note. *B* = unstandardised coefficient, *SE* = standard error, β = standardised coefficient beta, *t* = *t*-value. * $p < .05$, ** $p < .01$, *** $p < .001$. BCCI 95% (bias-corrected bootstrap confidence interval) is the robust bootstrapped confidence interval. Bootstrapping results are based on 1,000 bootstrap samples. Models predicting employees' OCBO. Model 1: $R^2 = .308$; $F(4, 829) = 92.094$, $p < .001$. Model 2: $R^2 = .308$; $F(8, 825) = 45.987$, $p < .001$.

relationships between employees' tri-dimensional attitudes to ongoing change and with work-related outcomes of (i) job satisfaction and (ii) OCBO.

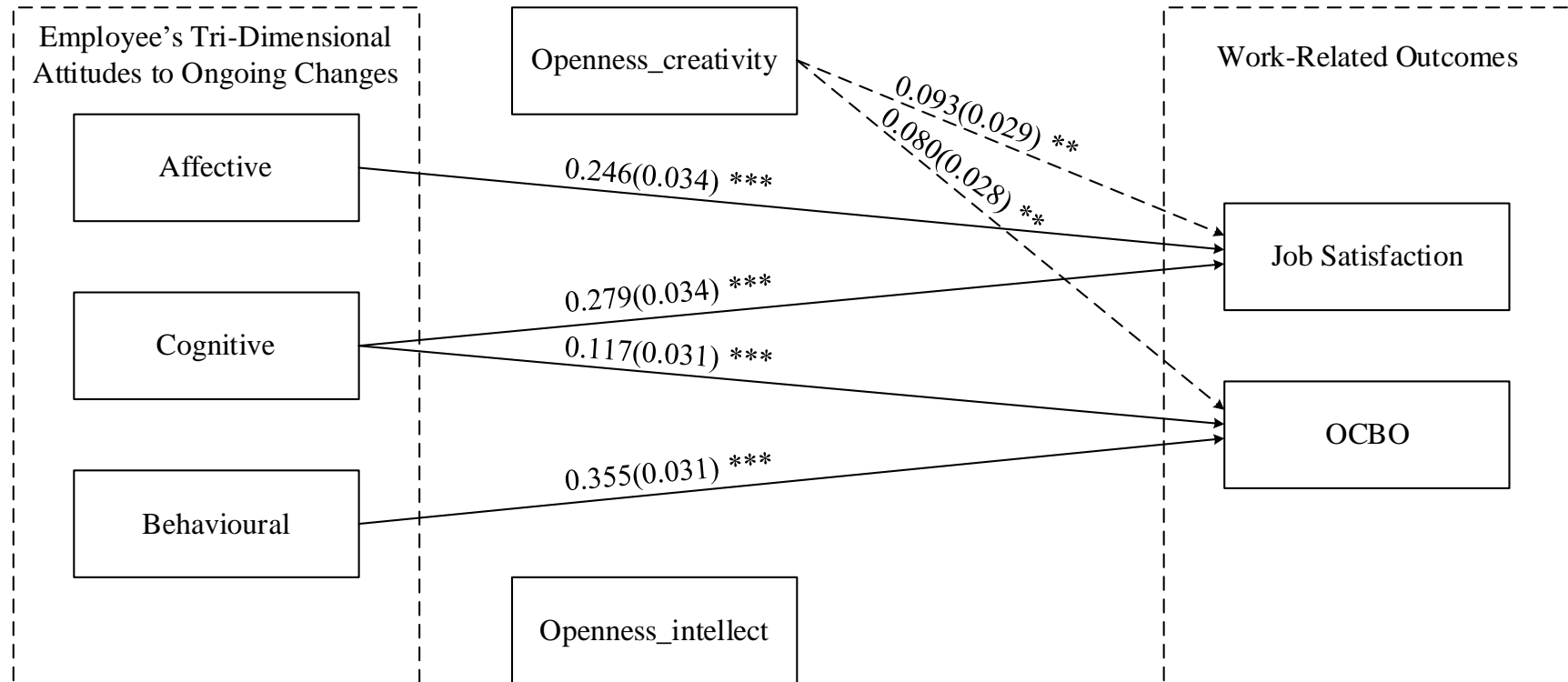
These results are presented as Model 2 in Table 3 for job satisfaction and Table 4 for OCBO. The regression equations for the interactive terms were entered as Model 2 with comparison to the main effects (Model 1). All estimates of the two-way interaction terms for both job satisfaction and OCBO were statistically non-significant suggests H5 (ai-ii) and H5 (bi-ii) were not supported by the results of the regression analyses. There is no moderating effect of employees' OE on the relationships between their tri-dimensional attitudes of change and their job satisfaction and OCBO. All significant regression results were illustrated as Figure 4 below.

However, what was surprising was, instead of acting like moderators, one OE facet, Openness_creativity, demonstrated a significant direct, positive relationship with both outcome variables. The Openness_creativity facet showed a statistically significant direct relationship with employees' job satisfaction presented in Table 3 ($\beta = 0.103$, $p < .001$) and employees' OCBO presented in Table 4 ($\beta = 0.092$, $p < .001$). These non-hypothesised direct relationships were illustrated in dashed lines in Figure 4. In contrast, the Openness_intellect facet yielded no significant relationships with both outcome variables. The unexpected results mean that employees who are on the higher end of the Openness_creativity factor are more likely to have a higher job satisfaction level ($B = 0.093$, $SE = 0.029$, $t = 3.246$, 95% CI [0.029, 0.168])) and higher OCBO ($B = 0.080$, $SE = 0.028$, $t = 2.852$, 95% CI [0.028, 0.131]).

Noting that my conservative approach of using bootstrapping supported the significance tests, showing support for hypotheses H1 to H4, but not for H5a and H5b for which zero was included in the 95% CI indicating no moderation effects were found. Moreover, the unexpected direct effects of Openness_creativity in predicting job satisfaction and OCBO were also supported by the bootstrapped 95% CI.

Figure 4

Model Showing the Direct Effects of Employees' Tri-Dimensional Attitudes and Openness Facets (Openness_creativity and Openness_intellect) on Employees' Job Satisfaction and OCBO



Note. To keep Figure 4 clean, the eight non-significant moderation paths are not shown, noting their details are provided in Tables 3 and 4. Unstandardised coefficients and standard errors are presented as $B(SE)$. The non-hypothesised significant direct effects are shown by a dashed line.

Post-Hoc Relative Weights Analyses

The above moderated multiple regression analyses only examine the proposed associations, and subsequently unexpected associations have not been tested. Inspired by Oreg's (2006) study, I realised that it is possible that all three components of attitudes to change could be associated with the two work-related outcome variables, that is, beyond my original hypotheses. Therefore, I provided further insights on the unique relationships underpinning the multiple regression analysis, including those I did not predict, through RWA.

Multiple regressions analysis and RWA may be used to analyse the same relationships, but with RWA providing supplementary detailed information (Tonidandel & LeBreton, 2015). The traditional regression analysis offers insights into which independent variables are significantly associate with the dependent variable, whereas RWA focuses on explaining the unique contribution of the predictors explaining non-trivial variance in the outcome variables (Tonidandel & LeBreton, 2015). RWA is often used as a remedy when independent variables are correlated, solving this problem by creating a new set of predictors that provide orthogonal representation of the original predictors (Johnson, 2000). The results obtained from RWA decompose the total variance predicted in a regression model (R^2) into weights that accurately reflect the proportional contribution of each predictor variable (Tonidandel & LeBreton, 2015). While multicollinearity of independent variables is not a concern for this study, defined as $r \leq .9$ (Field, 2013), as demonstrated in Table 2 where correlations between the independent variables range from .391 to .677, they may still have shared variance in predicting each dependent variable.

Therefore, I first carried out multiple regression analysis for the two dependent variables, job satisfaction and OCBO, with the tri-dimensional attitude components (affective, cognitive, and behavioural). Then, I used RWA to examine the unique

contribution of each attitude component towards the total variance explained in job satisfaction and OCBO, as they should provide stronger weights on the expected associations. RWA (Johnson, 2000) were conducted for two dependend variables using RWA-Web (Tonidandel & LeBreton, 2015); results from this analysis are summarised in Table 5. It provided estimates of variable importance using the metric of relative effect sizes (LeBreton et al., 2007). Specifically, these weights represent an additive decomposition of the total model R^2 and can be interpreted as the proportion of variance in job satisfaction and OCBO that is appropriately attributed to each tri-dimensional attitude component. As recommended by Tonidandel et al., (2009), bias corrected and accelerated confidence intervals were used because of their superior coverage accuracy for the individual relative weights (Johnson, 2004) and all corresponding significance tests were based on bootstrapping with 1,000 replications. In all cases, 95% CIs were used (corresponding to a significance testing alpha level of 0.05).

These results indicate that a weighted linear combination of the three CRRE attitudes to change components (affective, cognitive, and behavioural) explained 33.3% of the variance in job satisfaction criterion ($R^2 = 0.333$) and explained 29.5% of the variance in OCBO criterion ($R^2 = 0.295$). An examination of the relative weights revealed that all three CRRE components explained a statistically significant amount of variance in both job satisfaction and OCBO as none of the 95% CIs for the tests of significance contained zero. For job satisfaction, the most important variables were affective (RW = 0.139), which explained 41.7% of the variance in job satisfaction; followed by the cognitive factor (RW = 0.124) that explained 37.2% of the variance in job satisfaction. Although, the regression analysis shows significant association between the behavioural attitude and job satisfaction (i.e., the non-hypothesised relationship), relative to the other proposed predictors (i.e., affective and cognitive), behavioural component is the least important predictor (RW = 0.070) and explained 21.1% of the

variance in job satisfaction. For OCBO, the most important variable is the behavioural factor ($RW = 0.190$) that explained 64.3% of the variance in OCBO; followed by cognitive factor ($RW = 0.086$) that explained 29.2% of the variance in OCBO; and the least important component is affective ($RW = 0.019$) that explained 6.5% of the variance in OCBO.

The RWA results further support my hypotheses (H1-4) for the main effects between the tri-dimensional attitudes to change and the work-related outcomes. As expected, the proposed affective and cognitive attitudes to change (H1-2) are the two most important variables that altogether explained around 78% of the variance in job satisfaction, although the behavioural factor is a significant predictor but relatively it is the least important variable associated with job satisfaction. The RWA also support our proposed associations with OCBO (H3-4), as the behavioural and cognitive attitudes to change are the two most important variables that explained around 94% of the variance in OCBO and relatively the affective factor is the least important variable associated with OCBO.

Table 5*Results of Relative Weights Analyses for Job Satisfaction and OCBO*

	<i>B</i> (BCCI 95%)	<i>SE</i>	β	<i>t</i>	<i>p</i>	<i>RW</i>	<i>RS-RW (%)</i>	<i>CI-L</i>	<i>CI-U</i>
Independent variable = Job Satisfaction ($R^2 = .333$; $F [3,830] = 138.273$, $p < .001$)									
Constant	3.595 (3.543, 3.648)	.024		146.826	.000***				
CRRE_Affective	.257 (.180, .334)	.034	.294	7.629	.000***	0.139*	41.674	0.105	0.176
CRRE_Cognitive	.210 (.123, .288)	.040	.242	5.311	.000***	0.124*	37.186	0.090	0.160
CRRE_Behavioural	.120 (.053, .188)	.032	.137	3.777	.000***	0.070*	21.140	0.047	0.097
Independent variable = OCBO ($R^2 = .295$; $F [3,830] = 116.014$, $p < .001$)									
Constant	3.419 (3.373, 3.469)	.024		141.188	.000***				
CRRE_Affective	-.058 (-.134, .021)	.033	-.069	-1.748	.081	0.019*	6.506	0.005	0.030
CRRE_Cognitive	.170 (.083, .251)	.039	.203	4.334	.000***	0.086*	29.200	0.057	0.114
CRRE_Behavioural	.359 (.297, .417)	.031	.428	11.467	.000***	0.190*	64.294	0.148	0.230

Note. *B* = 109 standardized coefficient, BCCI 95% (bias-corrected bootstrap confidence interval) is the robust bootstrapped confidence interval. Bootstrapping results are based on 1,000 bootstrap samples, *SE* = standard error, β = standardised coefficient beta, *t* = t-value, * $p < .05$, ** $p < .01$, *** $p < .001$. *RW* = raw relative weights (within rounding error raw weights will sum to R^2), *RS-RW* = relative weight rescaled as a percentage of predicted variance in the dependent variables attributed to each independent variable (within rounding error rescaled weights sum to 100%), *CI-L* lower bound of confidence, *CI-U* upper bound of confidence interval used to test the statistical significance of raw weights.

CHAPTER V

Discussion

The extant literature on employees' experiences of organisational change has focussed predominantly on employees' specific attitudes to a planned change (Bouckennooghe, 2010; Oreg et al., 2011). Yet nascent research indicates that organisational change experienced at the micro-level is much more prevalent, ongoing, and complex than the nature of change conceptualised in a singular planned scenario, suggesting this is a rich area for inquiry, especially in contemporary work life (e.g., Ahmad et al., 2020; Brazzale et al., 2020; Carter et al., 2013; Kiefer, 2005).

My starting point was an analysis of the current literature on attitudes to change constructs. Due to the focus of planned change on employee factors that could be unblocked to help change succeed, the existing conceptualisations of employees' attitudes neither intend nor are able to capture the totality of employees' experiences of multiple, ongoing changes being a normal part of their work (Bouckennooghe, 2010; Choi, Oreg et al., 2011). This thesis looks beyond the context of specific changes, therefore, such planned change approach hindered the breadth of our understandings of employees' ongoing experiences of organisational change. In this respect, I proposed the use of a tri-dimensional model to conceptualise attitudes to ongoing change as it better serves the objective of capturing employees' experiences of change at the micro-level.

Based on prior theoretical and empirical evidence, I hypothesised that employees' tri-dimensional attitudes to ongoing change differentially predict their job satisfaction and OCBO, and such direct relationships are stronger for people with a higher OE personality profile. The hypotheses were tested using data from an online survey collected through a third-party platform, Prolific, and a series of data cleaning

procedures were carried out prior to the statistical analyses to ensure the quality of the data.

Overall, the overarching contribution of this thesis is using a tri-dimensional attitudes to change conceptualisation to study employees' experiences of ongoing change. This study redresses the imbalance in employees' attitudes to change that has examined constructs that serve management, instead taking a micro-perspective, and answering calls to take the change reaction literature in a new direction (Bouckenooghe, 2010; Piderit, 2000). Critically, this is the first study I am aware of that synthesises employees' reactions to change with the ongoing change context—in addition to integrating classic organisational behaviour (OB) constructs (i.e., job satisfaction and OCBO)—in order to obtain a comprehensive understanding of employees' experiences of ongoing change and relevant outcomes. Furthermore, this study also attempted to capture the potential moderating effect of employees' OE personality on the direct effects of attitudes to change on work-related outcomes.

Although some findings were consistent with our expectations, not all the hypotheses were supported. The following section will discuss specific hypotheses with interpretations of the findings and address their contributions, followed by the practical implications, limitations of the study, then ending with future directions and concluding remarks.

Attitudes to Ongoing Change and Work-Related Outcomes

Theoretical Contribution

Aligning with the first two aims of the study, the findings first established the suitability of adopting a tri-dimensional framework to conceptualise employees' attitudes to ongoing change. Then, the findings extended my understanding by capturing unique relationships between the components of attitudes and work-related outcomes.

Looking at these in more detail, the first contribution of the study is to establish the preliminary support for a tri-dimensional conceptualisation of employees' attitudes to ongoing change. The CFA and regression analyses of the study support the Tsaoasis and Vakola's (2018) interpretation of Piderit's (2000) tri-dimensional model of attitudes to change. As three attitude variables (affective, cognitive, and behavioural intent) do not theoretically or psychometrically converge into a higher-order factor, demonstrating they are distinct variables. Hence, the findings support the tri-dimensionality of Piderit's (2000) theorising of attitudes to change. Nonetheless, further psychometric improvement is necessary and will be discussed in the section addressing my psychometric contribution.

The findings show unique associations with the work-related outcomes in regression analyses, which means that all three components are equally important for understanding employees' experiences of ongoing change (Breckler, 1984; Greenwald, 1982). The criterion-related validity of the tri-dimensional attitudes to change derived from statistically significant correlations between (a) affective and cognitive attitudes to ongoing change with job satisfaction (H1-2) and (b) cognitive and behavioural attitudes to ongoing change with OCBO (H3-4). In line with Shadish et al.'s (2002) recommendation of testing a construct criterion-related validity, the components of the tri-dimensional attitudes to ongoing change differentially predict the outcome variable that they are intended to be associated with. In other words, these findings show coherence with the working definitions of the dependent variables, that is, job satisfaction is an affectively- and cognitively-laden construct (Weiss, 2002; Fisher, 2010) whereas OCBO is a cognitively-driven behaviour (Lee & Allen, 2002). This suggests the tri-dimensional attitudes to ongoing change has the ability to make inferences with employees' work-related outcomes (Shadish et al., 2002).

I have extensively dissected how uni-dimensional attitude to change constructs unduly simplifies employees' experiences of change in Chapter II. The one score obtained from these constructs, for example higher readiness for change, makes convenient predictions for change acceptance or resistance behaviours, but does not aim to uncover the reasons behind such an attitude. The tri-dimensional framework is beneficial in terms of narrowing down the specific combination of employees' attitude states. For example, an employee can feel emotionally tired with the ongoing changes at work, but also cognitively believe these changes are beneficial to the organisation. The tri-dimensional conceptualisation enriches our understanding of employees' experiences of ongoing change through gathering three distinct classes of information that better represent the complexity of employees' experiences of ongoing change and being able to capture unique relationships with work-related outcomes.

The second contribution is that this study is the first to provide evidence that employees' attitudes to ongoing change differentially predict specific work-related outcomes. I conducted hierarchical multiple regression analysis separately for the two dependent variables, job satisfaction and OCBO. The results from the first regression analysis suggests that employees who feel positive emotions, such as feel comfortable with the constant adjustments, are more likely to have positive affective experience at work which in turn predicts higher job satisfaction. Moreover, employees who have positive thoughts about the ongoing changes believe that these changes are beneficial and effective, and they will have positive outcomes. It is possible that these positive thoughts indicate the presence of cognitive alignment, the match between employees' values and perceptions of change (Weiss, 2002; Weiss & Cropanzano, 1996). In other words, employees who think that the ongoing changes are beneficial and effective are more likely to perceive and value their daily work as meaningful, and this cognitive judgement is the second pathway to predict higher job satisfaction. Even though the

behavioural attitudes to change has shown a weak but still significant correlation with job satisfaction, with the post-hoc RWA, the affective and cognitive attitudes to ongoing change emerge as the two most important predictors of job satisfaction that further support H1-2. This means that, relatively speaking, behavioural intentions about the ongoing change, such as encouraging or convincing others, are less important in predicting job satisfaction.

To my knowledge, Oreg (2006) is the only study that also adopted the tri-dimensional framework but he focussed on negative reactions, using tri-dimensional framework to study resistance to planned change and negatively predicting job satisfaction. My study differs from Oreg's (2006) study in the context of interest wherein the present research moves beyond a single change context and studies employees' experiences of ongoing change at work. The fact that both studies use the tri-dimensional attitudes to change framework to predict job satisfaction makes the comparison of the findings meaningful. Oreg (2006) noted that it is not precluded that other resistance components could also be negatively associated with job satisfaction, but did not investigate further. He aligned with an earlier definition of job satisfaction (Spector, 1997) and emphasised job satisfaction as an affectively-laden outcome. Therefore, Oreg (2006) hypothesised and found that the affective component of resistance to change negatively predicted job satisfaction.

My research extends on Oreg's (2006) findings in two ways. First, this study views job satisfaction more broadly as a job attitude consisting of affect and belief, that is, two components (Weiss, 2002). This attitudinal perspective is the predominant approach in the job satisfaction literature where both affect and belief are retained under this conceptualisation (Spector, 1997; Weiss, 2002, Fisher, 2010). As a job attitude, job satisfaction captures both emotion and appraisal aspects of Locke's (1976, p. 1300) classic definition where job satisfaction is a "pleasurable or positive emotional state

resulting from an appraisal of one's job or job experiences". Hence, job satisfaction viewed as a job attitude echoes the classic tripartite model of attitude, where the overall evaluation of one's job requires the individual to gather information from the affective experiences at work and the cognitive evaluation of daily work against their value (Fisher, 2010; Weiss, 2002).

Second, although Oreg (2006) mentioned that there is a possibility that other components could also be predictors of job satisfaction, he did not investigate possible associations other than the proposed relationship. My study took an extra step and conducted RWA to make a statistical comparison of the relative importance of the three attitude components in predicting job satisfaction. This statistical analysis not only further supported the proposed relationships but also indicates the association that was not proposed in the study, that is, behavioural attitudes to change and job satisfaction is relatively less important. In particular, affective and cognitive attitudes to ongoing change are the two most important predictors of job satisfaction whereas the behavioural aspect is a less effective predictor.

The second regression analysis evaluated the associations between employees' cognitive and behavioural attitudes to ongoing change with a work behaviour, that is, OCBO. The findings suggest that employees who believe that the ongoing changes at work are beneficial and are willing to contribute positively through their daily actions, such as convincing others, are more likely to engage in OCBO to help the overall functioning of the organisation. The findings echo the definition of OCBO, which is a cognitively-driven work behaviour (Lee & Allen, 2002). In other words, OCBO is a cognitively- and behaviourally-laden work-related outcome; it is most likely to be associated with the cognitive and behavioural dimensions of employees' attitudes to change. Moreover, although no prior study has examined the same specific associations of this study, there is previous evidence suggesting the coherency in the findings

obtained from this study. Previous studies have shown that employees holding positive attitudes to a specific change tend to have a higher level of OCB (Chih et al., 2012; Cropanzano et al., 2003) and employees with higher resistance to change tend to engage less in OCB (Beal et al., 2013). The present study extends current understanding by highlighting that employees' positive thoughts and behavioural intentions towards the daily changes they encounter at work are important to predict OCBO, but employees' emotions to ongoing change are less important in relation to predicting OCBO.

There are two possible explanations of these findings, that tapped into social exchange theory or value alignment. In the OCB literature, OCBO is viewed as a cognitively-driven behaviour that can be explained by social exchange theory (Emerson, 1976; Organ, 1988, 1990). Lee and Allen (2002) pointed out that OCBO is particularly triggered by thoughts while OCBI is a more expressive emotional behaviour. OCBO is a deliberate attempt by employees to maintain balance in the social exchange between themselves and the organisation, such that those who perceive they are treated fairly and well are more likely to engage in behaviours that enhance the overall functioning of the organisation (Lee & Allen, 2002; Organ, 1990). Hence, it could be possible that employees' perceptions of fairness in their organisation may play a part in influencing the direct effects of positive thoughts and behavioural intentions to ongoing change on their discretionary OCBO behaviours. It would be interesting for future research to look into the avenue of including organisational justice as a variable to further investigate the relationship between employees' cognitive and behavioural attitudes to change with OCBO.

There is another plausible explanation noted briefly in the change-oriented OCB literature where value alignment lies at the core of why people engage discretionary work behaviour (Seppälä et al., 2012). Employees are motivated to behave according to their values, and OCBO is a discretionary behaviour that is strongly influenced by

employees' thoughts and values towards the organisation (Bardi & Schwartz, 2003; Seppälä et al., 2012). As Van Dyne et al. (1994) pointed out that the relationship between an employee and an organisation may become a conventional relationship when it is characterised by shared values and organisational identification. In other words, when employees align their own values and objectives with those of their organisation, then employees may recognise OCBO mutually beneficial for both themselves and the organisation (Wei, 2014). Hence, employees who have positive thoughts about the ongoing changes may reflect these value alignments as they also believe that changes are necessary and will be successful. The positive behavioural intentions towards the ongoing change indicate the proactive actions that employees are engaging at work for the ongoing change. Altogether, the findings of the study suggest that it is important to consider employees' positive thoughts and intended behaviours towards ongoing change as they significantly predict their OCBO. The post-hoc RWA further supports H2-3 and indicates that employees' emotions to change may be a relatively less important predictor for OCBO in the ongoing change context.

In sum, my findings support the utility of a tri-dimensional model of employees' attitudes to ongoing change and uncover differentiated relationships between the work-related outcomes of job satisfaction and OCBO. This study extends our understanding in three ways. First, the tri-dimensional model is a fruitful avenue to conceptualise employees' attitudes to change as it captures the complexity of the phenomenon consisting of employees' feeling, thinking, and intended behaviour towards the ongoing change. Second, the findings bring valuable insights into suggesting that it is important to consider change constructs such as employees' attitudes to change in the broad OB context, especially in the context of a dynamic working environment. As indicated by the current findings, employees' attitudes to change significantly predict their work-related outcomes in the context of ongoing change. Third, the findings uncovered the

differential effects of the components of attitudes on specific types of work-related outcomes where these unique associations may offer valuable insights for practitioners and future researchers.

Psychometric Contribution

I have taken a conservative approach in conducting CFA on items for each of the three factors of attitudes to change (affective, cognitive, and behavioural) separately, proceeding to assess the latent tri-dimensional attitudes to change using the CRRE scale (Tsaousis & Vakola, 2018). This builds towards verifying the construct validity of my proposed model. The CFA conducted in the study revealed seven overlapping CRRE items which cross-loaded on more than one factor with substantial secondary loadings (Floyd & Widaman, 1995). As discussed in Chapter IV, such major cross-loadings influence validity. This resulted in the decision to delete two affective items, one cognitive item, and four behavioural items from the original CRRE measurement to ensure distinct construct dimensionality. In the next few paragraphs, I first analyse the potential issue with the seven deleted items that did not work sufficiently in my study. Then, I offer possible amendments to clarify the problematic items for the CRRE scale (Tsaousis & Vakola, 2018) when used to measure ongoing change attitudes. These amendments can be helpful for future research to continue the development of an instrument measuring employees' tri-dimensional attitudes to ongoing change. The comparison between the original and suggested seven CRRE items is outlined in Table 6 below.

The first two deleted affective items are “I do not like these ongoing changes” and “I am happy with the ongoing changes”. The CFA showed that both affective items cross-loaded onto the cognitive factor, indicating that the items demonstrate overlap between the affective and cognitive dimensions. I suspect the problem could be because the vocabulary used in the item statements is not “clear, concise, and straight-forward”

(Likert, 1974, p. 90). According to Likert's (1974) recommendation, each item statement should use the simplest possible vocabulary instead of adding unnecessary and meaningless words. Therefore, I provide the following possible amendments as suggestions for future research. The original item statement "do not like" can be amended into a more concise vocabulary "dislike". The other problematic affective item appears to be the only positively-worded item compared to the remaining six affective items measuring employees' emotions about the ongoing changes, which are all negatively worded. Although it is recommended to use a balance of items with opposite wordings (Nunnally, 1978), Barnette (2000) pointed out that a mixture of positively- and negatively-worded items sometimes leads to problems with internal consistency of an instrument. Other research has also found evidence via CFA, wherein the positively-worded items and negatively-worded items loaded on different factors and suggested a different response pattern (Benson, 1987). Therefore, according to Barnette's (2000) recommendation, to ensure the internal consistency of the affective factor, a possible amendment for future research is to reverse the direction of the wording for the problematic item to be consistent with the rest of the six affective items: "I am unhappy with the ongoing changes".

The next deleted item is from the cognitive factor, "I am skeptical about the outcomes of these ongoing changes". The CFA demonstrated that this cognitive item cross-loaded onto the affective factor, which indicates the item overlaps between the cognitive and affective dimensions. I suspect the problem could be due to the use of a difficult word "skeptical", as it may require a certain reading level for the respondent to understand the meaning of being "skeptical". Indeed, Likert (1974) pointed out the importance of keeping the vocabulary as simple as possible in item statements to avoid all kinds of ambiguity. Similarly, Marsh (1986) found that respondents with lower reading levels were less able to respond appropriately. Therefore, I suggest future

research can replace the word “skeptical” with an easier synonym such as “doubtful”.

The amended item becomes “I am doubtful about the outcomes of these ongoing changes”.

Table 6

Possible Amendments for the Tri-Dimensional Attitudes to Ongoing Change

The Original CRRE Items	Overlapping Dimensions	Suggested amended CRRE Items
Em5 _ <i>I do not like</i> these ongoing changes ^r	Affective item overlaps with Cognitive	I dislike these ongoing changes
Em7 _ I am <i>happy</i> with the ongoing changes	Affective item overlaps with Cognitive	I am unhappy with the ongoing changes
Cog7 _ I am <i>skeptical</i> about the outcomes of these ongoing changes ^r	Cognitive item overlaps with Affective	I am doubtful about the outcomes of these ongoing changes
Be1 _ I <i>share</i> whatever knowledge or information I have to help the ongoing changes be <i>successful</i>	Behavioural item overlaps with Cognitive	I share knowledge to help the ongoing changes
Be2 _ I am willing to <i>help</i> these ongoing changes be <i>successful</i>	Behavioural item overlaps with Cognitive	I am willing to help with these ongoing changes
Be3 _ I will <i>work longer hours</i> to implement the ongoing changes <i>successfully</i>	Behavioural item overlaps with Cognitive	I will work longer hours for these ongoing changes
Be7 _ I will strongly <i>support</i> the implementation of these ongoing changes	Behavioural item overlaps with Cognitive	I will suggest ways to implement these ongoing changes

Note. The problematic elements in the original items were italicised. The superscript means the item is reverse-coded.

The last four deleted items that did not perform sufficiently in my study are all behavioural items. The four items are “I share whatever knowledge or information I have to help the ongoing changes be successful”, “I am willing to help these ongoing changes be successful”, “I will work longer hours to implement the ongoing changes successfully”, and “I will strongly support the implementation of these ongoing changes”. The CFA revealed considerable overlap among these behavioural items with the cognitive factor. I think a plausible explanation for these overlaps is statement

ambiguity as the deleted items seem to involve compound elements that measure both cognitive and behavioural dimensions. A compound statement contains multiple information at once, such that the items loaded on more than one indicator and have a substantial secondary loading on another indicator (Floyd & Widaman, 1995; Likert, 1974).

The first three items mentioned above consist of a cognitive element, relating to change being successful, and a behavioural element, specifying the respondent's action towards the change. These three behavioural items were intended to ask respondents about their tendency to take a specific action (i.e., "sharing knowledge", "to help", or "work longer hours") towards the ongoing changes. Nevertheless, each statement is embedded within the assumption of "successful ongoing changes" that tap into one's cognitive judgements on the outcomes of the changes. It is quite possible that respondents may answer in one direction for the behavioural element but may not necessarily agree with the presumed positive outcome of the changes. Consequently, these behavioural items overlapped with these cognitive evaluations within each statement, and thus the response loads across cognitive and behavioural factors and cannot be interpreted uniquely by researchers. In this case, the overlapping statements leave respondents confused and not knowing how to respond, resulting in vagueness, and in turn accuracy of the item being diminished (Likert, 1974).

In my opinion, the fourth and last deleted behavioural item also suffered from a lack of clarity. The statement contains "strongly support" which is not clearly behavioural or cognitive, because support could occur in many ways that consist of mental support, supportive actions, or a combination of both. Moreover, the word "strongly" may be problematic as it could be doubling the Likert scale, resulting in confusion.

Hence, according to Likert's (1974) recommendation of constructing an attitude scale and Smith and McCarthy's (1995) suggestion on instrument refinement process, I have made the following amendments for the four poorly performing behavioural items. I have only kept the specific desired behaviour that the behavioural items are intended to measure, which are "share knowledge to help", "willing to help", and "work longer hours". I suggest that future research should remove all the unnecessary elements from the item statement and keep it as concise as possible, so that the statement only contains a single element which is a specific behaviour that item intended to measure. For the last behavioural item, I found a specific supportive action from a similar instrument developed by Szabla (2007) who has also drawn from Piderit's (2000) tri-dimensional framework. I adapted the item to the ongoing change context of the current study: "I will suggest ways to implement these ongoing changes".

Openness to Experience

Prior research has demonstrated that there is a dispositional component influencing how individuals respond to change. Personality traits have been investigated as antecedents of employees' attitudes to planned change (e.g., Judge et al., 1999; Oreg, 2003; 2006; Wanberg & Banas, 2000). I incorporated a broad dispositional construct, OE, to understand how the effects of employees' experiences of ongoing change are moderated by this aspect of personality. The instrument used in the study was designed to detect OE as one global personality factor (Saucier, 1994). However, unexpectedly the factor analysis revealed two distinct facets, which I labelled Openness_creativity and Openness_intellect. This led me to amend the original hypotheses in order to treat these two facets as distinct variables (H5ai-ii; H5bi-ii).

This two-factor structure of OE, while surprising, is coherent with the emerging compound conceptualisation of Openness/Intellect, where both openness and intellect are distinct but equally important aspects of the global OE personality factor (DeYoung

et al., 2007; Nusbaum & Silvia, 2011; Johnson 1994). Interestingly, some classic personality scholars raised this concern nearly two decades ago, where the compound label of Openness/Intellect appeared in a few earlier studies, but they didn't investigate further (Johnson, 1994; Saucier, 1992). Fortunately, the two facets of OE were captured in my study; the intellect facet is associated with items reflecting perceived intelligence and intellectual engagement (e.g., "intellectual", "complex", "deep", "philosophical"; Saucier, 1994), which I termed Openness_intellect. In comparison, the Openness facet (DeYoung, 2015), which is equivalent to the facet labelled Openness_creativity in my study, was associated with items reflecting engagement with sensation and perception, fantasy, imagination, and artistic creativity (e.g., "creative", "imaginative"; Saucier, 1994). Capturing both major aspects of OE in my study means that I can compare any potential differential effects.

Prior research found some evidence that OE performed as a weak predictor for job satisfaction and OCBO (e.g., Judge & Mount, 2002, Kumar et al., 2009). However, there are only a few studies that have examined the role of OE in organisational change contexts, which have found significant interactional effects between OE and various situational factors related to change in predicting employees' job satisfaction and OCB (Caldwell & Liu, 2011; Lipponen et al., 2008; Seppälä et al., 2012). Therefore, based on nascent research evidence and the literature on OE, I expected employees' Openness_creativity (H5ai-H5aii) and Openness_intellect (H5bi-H5) would positively predict the relationships between employees' attitudes to ongoing change with job satisfaction and OCBO.

Surprisingly, the regression analyses did not support the hypotheses (H5ai-ii; H5bi-ii), with no moderation effects observed for either facet of OE. These findings indicate that the direct effects of employees' attitudes to ongoing change on their work-related outcomes do not vary according to employees' levels of Openness_creativity

and Openness_intellect. It is not the case that the positive effects of attitudes to ongoing change on work outcomes are stronger for those who are more open to new ideas, experiences, and novel situations. Research suggests that moderation effects can be difficult to detect in non-experimental studies (McClelland & Judd, 1993). However, it was interesting that Openness_creativity demonstrated significant positive relationships with job satisfaction and OCBO. The Openness_intellect facet yielded non-significant associations with both of the work outcomes. This means that employees who score higher on Openness_creativity are more likely to report higher job satisfaction and OCBO, but this was not the case for employees who scored higher on Openness_intellect.

The probable reasons for these findings may be the following: the unexpected direct relationship between Openness_creativity and both job satisfaction and OCBO are not entirely surprising, as prior studies in the planned change contexts have found some evidence that OE was a weak predictor of job satisfaction and OCB (e.g., Judge & Mount, 2002, Kumar et al., 2009). These findings seem to suggest that the employees who are more willing to proactively deal with the ongoing change tend to experience a higher job satisfaction and are more likely to engage in citizenship behaviours towards their organisations (OCBO). This personality component is always present within the individual and explains the individual differences in how people perceive, respond, and behave differently in situations (House et al., 1996).

However, in the context of understanding how employees perceive their daily encounters of ongoing change influence their work-related outcomes, my study suggests the person's personality profile of OE level does not play a significant role in terms of influencing the relationship. Perhaps this is what Davis-Blake and Pfeffer (1989, p. 387) might have referred to as "strong situations in organisational settings", where an individual's personality is likely to have only limited effects on their perceptions and

reactions at work. Indeed, the regression analyses show that affective and cognitive attitudes to change are stronger predictors than Openness_creativity in predicting job satisfaction. Similarly, the cognitive and behavioural attitudes to change are stronger predictors than Openness_creativity in predicting employees' OCBO. These findings imply that attitudes of how employees think, feel, and intend to behave in the face of ongoing change are more important than individuals' OE personality profile when predicting work-related outcomes.

Although the OE measure used in the study is a well-established personality instrument (Mini-Marker Scale; Saucier, 1994), it could be possible that due to the psychometric property of the measurement, the moderation effects of OE were not captured in the study. It is necessary for future research to replicate the study using a more sophisticated OE instrument such as the IPIP-NEO-60 items Personality Inventory (Maples-Keller et al., 2019). Alternatively, it could also be possible that in order to capture the hypothesised moderation effects, niche dispositional measurement such as dispositional resistance to change may be more effective than the broad personality inventory (Oreg, 2003). As House et al (1996) pointed out, the FFM contains five global personality dimensions that subsume multiple subordinate facets, which may not be helpful when explaining specific phenomena. Therefore, it is worthwhile for future research to look into these fruitful avenues to further examine whether employees' personality profile has any moderating effects on the relationships between attitudes to change and workplace outcomes. I will discuss these ideas in detail in the future research directions section (see below).

Given the significant direct effects for only Openness_creativity, and not Openness_intellect, and the lack of support for hypothesised moderation effects, it is valuable to reflect on literature that has investigated the differences between the two facets of OE. Indeed, research shows Openness_creativity and Openness_intellect are

two related but distinct aspects of the global OE personality domain (DeYoung et al., 2007; Nusbaum & Silvia, 2011). Openness_intellect is associated with individuals' cognitive abilities in how information is processed and organised (DeYoung, 2015). On the contrary, Openness_creativity is associated with the motivational aspect of an individual's natural inclination to be interested in novelty, creativity, and imagination (DeYoung, 2015). Moreover, studies show that Openness_intellect significantly predicts fluid intelligence but not creativity, while Openness_creativity significantly predicts creativity but not fluid intelligence (Nusbaum & Silvia, 2011). Relatedly, several studies have found that an individual's creative behaviours and activities are driven by one's motivations, not necessarily one's raw cognitive abilities (Karwowski & Barbot, 2016; Karwowski & Lebuda, 2017; Kaufman et al., 2016).

My findings deepen our understanding of the role of OE as a personality trait for employees experiencing ongoing changes. Specifically, it narrows down to the facet and suggests that only the motivational aspect of OE (Openness_creativity) significantly predicts employees' job satisfaction and OCBO. A probable explanation could be the following: ongoing change at the micro-level requires employees to constantly implement minor improvisations or adjustments to work effectively in their daily tasks, which generally lack explicit instructions on what to do (Maimone & Sinclair, 2014; Orlikowski, 1996). Hence, adapting to ongoing change not only requires learning, unlearning, or relearning, but also the development of new, more appropriate, and possibly counterintuitive ways of doing things on a daily basis (LePine et al., 2000). This requirement places a premium on employees who are willing to put themselves under situations of ambiguity and novelty, who are interested in bringing creativity and proactivity through continuous self-monitoring and self-learning into everyday situations, without explicit instructions and goals.

Therefore, it is possible that someone who scored high on the Openness_creativity is motivated to proactively handle ongoing change in their daily work life in a creative and flexible way (Kaufman, 2013). This explanation is coherent with a few studies. For example, LePine et al (2000) pointed out that researchers need to look beyond intelligence and focus more on motivation when studying individual differences in change adaptability. Similarly, Grant and Parker (2009, p.342) have also suggested that “in uncertain environments, employees are increasingly likely to be and needed to be active participants to engage in proactive behaviours”. Therefore, as people high in Openness_creativity adapt to the ongoing change with such positive energy and proactivity, they are more likely to report higher job satisfaction and engage in more proactive forms of behaviours such as OCBO.

To sum up, my findings for studying the moderation effects of OE suggest two main points. First, the positive effects of employees’ attitudes to ongoing change on their work-related outcomes of job satisfaction and OCBO are not influenced by employees’ level of OE personality. This means that, regardless of employees’ OE level, the nature of how employees’ attitudes to ongoing change links to their job satisfaction and OCBO is the same. Second, a small amount of variance in employees’ work-related outcomes of job satisfaction and OCBO is due to the motivational aspect of OE (Openness_creativity), but not the cognitive aspect (Openness_intellect).

Practical Implications

The current research indicates that employees’ attitudes to ongoing change are significantly associated with workplace outcome. Moreover, employees’ experiences of ongoing change are much more complex than previously assumed. Studying employees’ attitudes to change within the singular planned change scenario in isolation of employees’ day-to-day encounters with change may limit our understanding of employees’ experiences of change at work. Especially, if employees’ attitudes to change

are solely viewed from a dichotomous view of resist or support, reactions such as resistance may be interpreted as an expression of an inability or unwillingness to change. This managerial dichotomous conceptualisation of employees' attitudes to change may not do justice to the individuals' experiences, because research indicates employees are experiencing ongoing change at the micro-level and their reactions to these changes are complex (Piderit, 2000; Tsoukas & Chia, 2011). I will discuss the implications of the study for employees, managers, change consultants, and HR practitioners.

For employees, this is an empowering study, because the present research situates employees as the central focus, offering a tri-dimensional way for employees to think and talk about their experiences and daily challenges with ongoing change at work. The tri-dimensional approach to conceptualising employees' attitudes to change allows employees to have conflicting, ambivalent, or mixed attitudes towards change (Borges & Quintas, 2020; Oreg, 2006; Piderit, 2000). For example, an employee could have positive thoughts and willing to contribute in actions to ongoing change but emotionally feel anxious towards the uncertainties and the constant adjustments in the workplace. The tri-dimensional framework allows employees to be more attentive to their daily encounters of change, and recognises the complexity of how different aspects contribute to their overall experiences of organisational change.

Moreover, in line with several recent calls to treat employees as active agents rather than passive recipients of changes they encounter at work (Ahmad et al., 2020; Crant, 2000), the study purposely shifts the language to be more neutral, from the term "reactions to change" to "attitudes to change", restoring employees' agency to take an active role in their approaches to work. Altogether, this tri-dimensional framework offers an employee-centric way to help employees to understand their daily experiences of ongoing change. This framework of understanding may inspire employees to initiate

discussions among their colleagues and managers about their ongoing experiences of change and daily challenges at work.

For managers, in interpreting employees' attitudes to change, they may benefit from being sensitive to the different dimensions of attitude—affective, cognitive, and behavioural. The tri-dimensional conceptualisation offers managers more information for interpreting employees' experiences of ongoing change as it offers three classes of information that are not possible in uni-dimensional concepts. For example, measuring employees' openness to change gives managers an indication of employees' attitudes on the extent of change acceptance. It is difficult for managers to narrow down to the exact attitude, and hence even more difficult to understand the reason for such attitude under the boundary of uni-dimensional understanding. In contrast, the tri-dimensional conceptualisation captures a broader scope of employees' attitudes that reflect the complexity of how attitudes may manifest in three dimensions of feeling, thinking, and behavioural intends, which therefore provides managers more accurate information to pinpoint possibly a single dimension of concerns. For example, managers can ask their employees how they feel, think, and intend to behave towards all the ongoing changes that are happening in the workplace. An employee may experience mixed attitudes where they do have positive thoughts but also feel unpleasant emotionally. In this case, managers can facilitate tailored support for individuals to adapt better to changes by searching for possible reasons within the affective dimension and offer customised help to individual team members. Possible reasons could be an unpleasant prior history of organisational change paired with negative emotions, such as disappointment and anger (Ajzen, 1987; Breckler, 1984).

Furthermore, managers can learn from the specific relationships uncovered in this study between different attitude components and various types of work-related outcomes. Managers should be aware that people's feelings and thoughts about the

ongoing changes they experience may predict how they will feel about their job reflected by job satisfaction, and what people think and do about the ongoing change may translate into their OCBO. For instance, if managers want to maintain a satisfactory level of job satisfaction for the team during a period of multiple change implementations, they may benefit from monitoring people's feelings and thoughts about the ongoing change. Similarly, if managers want to maintain a good level of citizenship behaviours during a period of extensive changes at work, then managers should take extra care to monitor the aggregate effects of all changes on team members' thoughts and behaviours.

For change consultants, the findings in the present study offers an opportunity to step outside the traditional managerial thinking, and take a fresh perspective, viewing organisational changes from a micro-level, employee-centric perspective. The current study emphasises the added value for change consultants to be more aware and acknowledge that employees are encountering ongoing change at work. From the employees' perspective, constant adaptation is required in the context of ongoing change; how they respond to these daily changes is complicated and may even be ambivalent (e.g., Piderit, 2000; Tsoukas & Chia, 2002).

Change consultants should consider the possibility of educating business leaders and employees regarding the anticipated experience of ongoing change. This could include amending the ways in which change programmes are delivered to highlight the shift in mindsets towards acknowledging ongoing change at the micro-level. For example, contrast the traditional planned process (Porras & Silvers, 1991) of beginning the change process by engaging a small group of managers in identifying the desired change outcome and later aiming to gain broader employee acceptance of the proposal. Instead, change agents could aim to flip the logistics and create change from the bottom-up, starting by generating widespread conversations and facilitating learnings

about micro-level ongoing change. First, these conversations aim to educate employees and managements on the demands arising from continuous adjustments at both the organisational level and individual level. Second, it may serve to legitimatise the likely ambivalence in employees' attitudes to ongoing change. Lastly, to introduce a language toolkit for employees to communicate their challenges. In this way, change consultants may no longer be lured to label employees as disobedient, and strive to suppress resistance, but transform themselves into those who practice change with awareness, empathy, and compassion towards the employees, and help organisations cultivate a supportive and efficient working environment that embraces ongoing change.

For HR practitioners, the findings suggest employees' attitudes to ongoing change are associated with workplace outcomes, meaning there is a need for organisations to pay attention to the cumulative effects of organisational changes on employees' wellbeing and relevant outcomes. Apart from specialised change consultants taking charge of different change implementation processes, this study suggests the need for HR managers to oversee the aggregate effects of all the changes in the organisation on individual employees. In times of ongoing change, where different organisational change projects may target various aspects of work structure (e.g., introducing new IT and HR systems) more or less simultaneously and continuously, adjustment to such changes is no longer a linear process occurring over a limited period (Kiefer, 2005; Weick & Quinn, 1999). From a top-down managerial perspective, organisational changes may be viewed as distinct change projects overseen by different change consultants. However, changes cannot be considered as mutually exclusive at the micro-level. Employees are experiencing all the changes that are happening in the organisation at any point in time, and these changes can happen concurrently, and with the possibility of complementary or competing goals (Brazzale et al., 2020; Kiefer, 2005).

The present study demonstrates preliminary support for the need for HR managers to concern change constructs such as employees' attitudes to ongoing change in relation to the broader workplace outcomes. This study captures significant relationships between employees' attitudes to change and work-related outcomes of job satisfaction and OCBO. This suggests that it is important to monitor the overall effects of ongoing change on employees' work-related outcomes. With further research support, the employees' tri-dimensional attitudes to ongoing change could be used as an indicator to reflect employees' experiences of the current ongoing change at work. As past research suggested, a moderate amount of stress produces optimum levels of productivity for employees' performance (Wilke et al., 1985), but too many changes may overload the employees that may lead to detrimental effects (Bruch & Menges, 2010). HR managers should regularly monitor employees' experiences of ongoing change to limit change to an amount that employees can manage, perhaps even enjoy, and which does not impinge on employee wellbeing, but rather stimulates a productive and positive work environment for employees.

In sum, this study suggests the added value of studying change concept in relation to the broader OB research interest, where employees' tri-dimensional attitudes to ongoing change are associated with workplace outcomes. The findings have implications for employees, managers, change consultants, and HR practitioners to offer a compassionate understanding for employees' experiences of ongoing change being part of the contemporary work life. At times of ongoing change, studying employees' experiences of change in a single planned change scenario does not do justice to employees' ongoing encounters of changes at work. Instead, studying employees' attitudes to ongoing change as a legitimate expression of an individual's aggregate experience of all the changes they encounter at work brings relevant and useful insights to practitioners. Moreover, the tri-dimensional framework enables practitioners to

obtain a richer understanding of the complexity of how employees may feel, think, and intend to behave in the face of ongoing change at work. Therefore, recognising the challenges of ongoing change that may not have been seen before from a macro-perspective may help practitioners to facilitate supportive working environments that encourage employees to develop continuously.

Limitations and Future Research Directions

I hope it is apparent to the reader that adopting a tri-dimensional framework to study employees' experiences to ongoing changes from the micro-level is a rich area embedded in possibilities for prospective scholarship, especially under the current turbulent work environments. This study is the first stepping-stone towards advancing our knowledge of employees' experiences of ongoing change and testing relevant consequences. There is still a long way to go as we are in the infant stage of trying to better conceptualise employees' attitudes to ongoing change. Even though this study offered some valuable insights, it is not without limitations. In this section, I will address the limitations of the present study and provide possible pathways for future research.

First, the use of self-report data may be viewed as inferior to methods that supplement this with other techniques, such as multitrait-multimethod approaches (Podsakoff et al., 2003). Self-report data pose a threat to the validity of the results as it increases the risk of common method variance (CMV), which may inflate observed correlations (Podsakoff et al., 2012). Nevertheless, the use of proxy-reports, that is, data from other sources, while generally viewed as more objective, are not necessarily more accurate (Schwarz & Oyserman, 2001). For example, the objective of this research was to investigate employees' attitudes to ongoing change and relevant outcomes. As such, direct measures were deemed the most appropriate way to fulfil these aims, as

individual's attitudes are difficult to validate with proxy-reports (Podsakoff & Organ, 1986; Spector, 2006).

Nonetheless, following Podsakoff et al. (2012), steps were taken (see Chapter III) to reduce the potential impact of CMV. These included applying different response scales (i.e., frequency and agreeableness scales) to minimise the scale properties; placing dependent variables early in the survey to prevent respondents from anticipating the studied relationships; the use of reversed items when appropriate; and placing measures that require less cognitive effort (i.e., are personality measure) near the end of the survey to limit any effects from respondent fatigue. Furthermore, anonymity and confidentiality were assured, reducing the potential impact of social desirability (Podsakoff et al., 2012).

According to Spector et al.'s (2019) list of perceptual marker variables, the study selected a correlational marker variable, information processing of job requirement, as a means of conducting further statistical analysis to assess the effect of CMV (Lindell & Whitney, 2001; Morgeson & Humphrey, 2006). This marker variable was expected to be theoretically unrelated to the study variables, yet appropriate as answering information processing items should elicit similar cognitive processes as the study variables (Spector et al., 2019). However, it was found that the marker variable was significantly correlated with six out of seven study variables. The correlation matrix is shown in Appendix E. This means that the information processing items of job requirement might be theoretically unrelated, but it is empirically-related to study variables. Therefore, the subsequent partial correlation analysis using the Correlated Marker Technique would not generate meaningful results, and hence was not carried out (Lindell & Whitney, 2001).

Future research should look into alternative marker variables such as work method, consisting three items assessing employees' perceptions on their work method

(e.g. “The job allows me to make decisions about what methods I use to complete my work”; Morgeson & Humphrey, 2006). This marker variable fulfils both criterion recommended by Simmering et al. (2015), where it is theoretically unrelated to the study variables and it is a perceptual construct that shares the same source of method variance with most of the focal variables (Spector et al., 2019).

Second potential issue that is worth noting is that the survey participation was entirely voluntary, which could pose risks from the sample being a product of self-selection. Past research suggests that respondents are more likely to take part in organisational research when they already exhibit positive attitudes towards their work (Rogelberg et al., 2006). Indeed, three of the seven variables in the study had moderate negative skew (i.e., cognitive attitudes, job satisfaction, and creativity component of openness), indicating generally more positive responses, while the rest of the variables followed a more symmetrical distribution. It is not uncommon in organisational research to observe skewed data (Bishara & Hittner, 2012). Also as stated in Chapter III, this minor violation of the normality assumption can be compensated by the large sample size and the use of a robust method of bootstrapping in the present study (Field, 2018). Notably, this study successfully replicates the anticipated relationships between some previously studied constructs under a new context, implying that skewness did not bias the findings, but nonetheless replication is still recommended.

The third potential limitation is issues with the measurement instruments that were used, which may limit the adequacy of my findings. The original instrument of the CRRE, developed by Tsaousis and Vakola (2018), was designed to measure employees’ tri-dimensional attitudes to a planned change. The shifted ongoing change paradigm prompted us to amend the wording of the scales emphasising “these ongoing changes” instead of “the change”. However, the results obtained from the CFA indicated that cross-loadings occurred between the cognitive and behavioural dimensions resulting in

the removal of seven overlapping items from the original instrument in order to ensure construct dimensionality. Although I believe the CRRE scale is, to date, the most appropriate instrument available that captures employees' tri-dimensional attitudes to change, yet this is a recently developed instrument with minimal empirical evidence of scale validation. Hence, future research may further refine and develop this instrument to investigate the psychometric properties of this measure to see how well it performs to capture employees' experiences of ongoing change. Some suggestions were given in the previous psychometric contribution section for amending the items that proved problematic in this study. The findings of this study present a good first step in offering some preliminary insights into the usefulness of the tri-dimensional conceptualisations of employees' attitudes to ongoing change and relevant consequences. Nonetheless replication of the study with further psychometric refinement is recommended to increase confidence in the psychometric properties of the CRRE instrument, and therefore its utility for future research.

Furthermore, it is important to note that in the CRRE instrument (Tsaousis & Vakola, 2018), both cognitive and behavioural dimensions consist positive items that measure positive thoughts and behavioural intent towards change. However, the affective dimension consists items measuring the negative emotions towards change. It is worth pointing out that research suggests that the conceptualisation of affect is complex, where the absence of negative emotions does not necessarily indicate the presence of positive emotions (Warr et al., 2014, Oreg et al., 2018). This raises an interesting point to reflect on the current CRRE instrument, as it captures the presence or absence of employees' positive thoughts and behavioural intent towards change, in addition to the presence or absence of employees' negative emotions to change. The CRRE instrument items were not designed to capture positive emotions, negative thoughts, and behavioural intent to change. Therefore, it would be worthwhile for future

research to further develop the CRRE instrument by including a mixture of positive and negative items across all three dimensions of attitudes, to capture both spectrum of employees' positive and negative emotions, thoughts, and intended behaviours to change. For example, future research could include a mixture of both positive and negative affective attitudes to change such as "enthusiastic", "interested", "distressed", or "irritable" (PANAS scale; Watson et al., 1988). This is a possible avenue for future research to examine employees' tri-dimensional attitudes to change in a richer way, as it allows employees to have mixed views about change. This echoes the ambivalence of tri-dimensional attitudes to change pointed out by Piderit (2000), that employees' emotions, thoughts, and intended behaviours towards change may not coincide. Although, there could be a potential issue with the internal consistency of mixed positively-worded and negatively-worded items argued in Barnette (2000), I still believe future research should look into the possibilities of further developing the CRRE instrument to capture both spectrums of positive and negative tri-dimensional attitudes to change.

The fourth limitation may be due to the choice of our personality instrument. Due to the scope of this master's thesis, I selected OE as the only Big-Five factor that is relevant to the investigation of this study (see Chapter II for a detailed explanation of this choice). Hence, the scale I used to detect respondents' personality profile is based on the OE items from Saucier's (1994) 40-items Mini-Marker abbreviated inventory developed from Goldberg's (1992) robust set of IPIP Big-Five factor markers. The study contains eight items, expressed as adjectives, that measure respondents' OE profile. The original items were intended to detect one global OE factor, however, perhaps due to the absence of the rest of the Big-Five factors, the CFA produced two distinct facets (i.e., Openness_intellect and Openness_creativity). These two facets are consistent with the recent Openness/Intellect model of OE (DeYoung et al., 2015),

providing some support for their validity. The anticipated moderation effects of OE on the relationship between attitudes to ongoing change and work-related outcomes were not observed in the present study.

Nevertheless, it is not precluded that a more robust personality inventory might produce different findings, including the possibility of finding the proposed moderation. Hence, future studies that are not restricted by the length of the questionnaire could use a more sophisticated instrument, such as IPIP-NEO-60 items Personality Inventory (Maples-Keller et al., 2019), and perhaps explore all the factors of the Big Five personality. A more detailed measure could offer more confidence when measuring respondents' personality profile. Moreover, replicating the present study using an alternative personality instrument to investigate whether the non-significant moderation effects are related to the brief personality instrument used, so that the inferences from the study can be made with more precision. Future research could also investigate whether using a change-oriented personality measure such as dispositional resistance to change (e.g., Oreg, 2003) would capture the moderation effect of personality. It is possible that the hypothesised moderating effect of personality is very specific to change that is better captured with niche dispositional inventory rather than global personality factor. Future research is necessary to investigate into how personality plays a part in employees' attitudes to change and workplace outcome.

The fifth limitation taps into the ontological stance of change that was taken for the study which subsequently impacted how I selected the appropriate bandwidth of framework to conceptualise the phenomenon of interest. Referring back to the planned versus ongoing change paradigm argument that I laid out in Chapter I, studying changes in organisational settings is a complex phenomenon embedded with inherent paradoxes. In my opinion, it is crucial for change scholars to be more aware of the assumptions imprinted with each change paradigm and consciously select the appropriate bandwidth

of variables that captures the phenomenon of interest while acknowledging the limitations of the knowledge obtained. It could also be helpful for change scholars to start having open discussions about how planned and ongoing change paradigms contribute differently, but complementary, towards the overall understandings of changes in the workplace.

The present study aligns with the emerging ongoing change paradigm; it is interested in understanding employees' experiences of ongoing change. Therefore, I have taken a wide angle view to understand employees' aggregate experiences of ongoing change. The hypotheses of the study were built from existing literature on attitudes to planned change, but tested in the ongoing change context. This zoomed-out approach matches with my interest in employees' overall experiences of ongoing change at work to obtain the bigger picture. Nevertheless, the study faces the dilemma of bandwidth-fidelity (Cronbach & Gleser, 1965). According to Tsaousis and Vakola (2018), this is typical in organisational change research, with a constant trade-off where scholars and practitioners are often faced with this dilemma when deciding whether to use narrow versus broad scales in the description of human behaviour. I am aware of the limitation that emerged from this dilemma and conscious of the scope of inferences drawn by this study. In particular, this study adopted a broad framework to study the overall effects of ongoing change on employees' work-related outcomes, thus, it has limitations to offer pragmatic inferences that are context-specific or change-specific.

The current study indicates that the tri-dimensional framework of attitudes to change is a fruitful model, which is worth investigating further under the ongoing change context. It entails new thoughts and perspectives for the work in this area, such as considering the possibilities of complex attitude responses, as well as the ongoing and pervasive nature of change from the employees' perspective. However, my research is at the infant stage of trying to better conceptualise employee's experiences of ongoing

change. The tri-dimensional conceptualisation is a starting point to further define the conceptual boundaries of attitudes to ongoing change, to draw clear distinctions with the existing attitudes to planned change concepts. Nonetheless, much more empirical and theoretical works are required to better understand this phenomenon of interest. Next, I will provide some possible empirical and theoretical routes for future studies.

Although this study demonstrated preliminary evidence on the tri-dimensional attitudinal effects of ongoing changes on employees' work-related outcomes. The current research does not consider possible antecedent variables such as amount of change, intensity of change, or mix of positive and negative change experiences all of which may offer further understandings. In the past two decades, we have seen enough significant changes in the way many organisations are constantly adapting in response to the highly volatile and competitive business environments (Corbett, 2015). Brazzale and colleagues (2020) have also shed light on the striking statistics that changes are highly prevalent in today's workplaces, and 40% of them are experiencing moderate to massive amount of change. For instance, future studies can take the present study to the next level by testing amount of change as an antecedent to attitudes to ongoing change and examine whether attitudes to ongoing change act as mediators that explain the relationships between amount of change and work-related outcomes. I anticipate that people experiencing a substantial amount of change may have a relatively negative attitude to ongoing change across the three attitude dimensions, which may associate with negative work-related outcomes. Similarly, future studies could also explore whether amount of change acts as a moderator that dampens the positive effect of attitudes to change on work-related outcomes.

While I did account for the impact of employees' attitudes to ongoing change on their work-related outcomes, I did not consider the possibility that employees' attitude will alter over time. The survey data were collected at a single point in time. Thus, the

use of cross-sectional data provides no information with regards to the influence of time on the studied variables and, therefore, no claims can be made regarding causality in the relationships found between the study's variables. However, the goal of the study is to explore a framework to capture employees' experiences of ongoing change, and evaluate whether the effects of attitudes to change on work-related outcomes are still observable under the ongoing change context. We are at the nascent stage of testing the hypotheses under the shifted ongoing change paradigm. According to Spector (2019), studies with an explorative nature are typically best done first in a cross-sectional design that allows the efficient collection of many variables from large samples where scholars can search for meaningful patterns.

At this stage, a cross-sectional study is appropriate and cost-efficient, but future longitudinal studies would advance our knowledge of ongoing change because such design is coherent with the ongoing change paradigm. In particular, longitudinal studies not only validate the nature of change as fluid but also investigate employees' attitudes to change as a dynamic state of mind. For example, to investigate how employees' attitudes fluctuate according to amount of change they experience; to develop a taxonomy of categorising the state of mind that the employee is in at one point in time, which may relate to a unique combination of the three attitudes to change components. It offers more meaningful practical implications as one could refer to a single state of mind that represents a specific combination of the three attitude components, and longitudinal studies could examine how specific categories of attitudes evolve over time. Overall, future studies would benefit from the use of the longitudinal design to further validate findings of the relationships among employees' attitudes to ongoing change over time and based on relevant work-related outcomes.

Although Piderit (2000) mentioned that the tri-dimensional framework was drawn from the tripartite model of attitude (Ajzen, 1984), the theoretical basis of the

work is not explained further. While the tri-dimensional framework can be traced back to an ancient trichotomy of thinking, feeling, and doing (McGuire, 1969) and has an attitudinal foundation (Ajzen, 1987), yet it still lacks a robust theoretical ground. Several reviews commented on the lack of conceptual works as a significant challenge for research into employees' attitudes to change (Bouckennooghe, 2010; Oreg et al., 2011). Similarly, Evans (2020) has also criticised the current organisational change research as being heavily reliant upon case studies of specific change contexts and again lacking theoretical grounding.

There remains a real need for theory-building contributions focused on employees' experiences of ongoing change. For example, future conceptual works could make possible connections with the existing attitude theories (theory of planned behaviour; Ajzen, 1987; affective events theory; Weiss & Cropanzano, 1996), or going back to Lewin's earlier works on the field theory (Burnes, 2020; Lewin, 1939; Schein & Schein, 2019). According to Burnes (2020), Lewin's famous three-step linear model of change has been taken out of the context (i.e., the field theory) where the essence of the model is three iterative continuous process and that has been lost in the conventional linear representation. It would be interesting and maybe surprising for change scholars to revisit Lewin's field theory and make possible connections with Lewin's earlier works and employees' experiences of ongoing change at work.

Concluding Remarks

Over the past decades, employees' experience of organisational change has been predominantly studied within a specific planned change context, using a number of niche constructs such as resistance to change. However, the fast-evolving world, characterised by VUCA, highlights the dynamic nature of contemporary work environments. The traditional planned change approach aims at successfully implementing a single change but does not aim to understand what employees are going

through with the multiple changes they encounter simultaneously at work. I have argued that studying one change at a time does not approximate the reality of how employees experience changes at the micro-level.

Therefore, to address these deficits, and with the overarching goal of obtaining a better understanding of employees' experience of ongoing change at the micro-level, this thesis established the suitability of the tri-dimensional conceptualisation of employees' attitudes to ongoing change. As part of a small research movement (e.g., Borges & Quintas, 2020; Oreg, 2006; Tsaousis & Vakola, 2018) responding to Piderit's (2000) call to consider the tri-dimensional conceptualisation of employees' attitudes to change, avoiding the limitation of taking a dichotomous view of resistance versus acceptance. The usefulness of the tri-dimensional framework avoids prejudicially attributing biased reasons to employees' negative reactions to change, such as that they are disobedient, incapable, and short-sighted (Piderit, 2000; Thomas & Hardy, 2011). The framework also enriches our understanding of the phenomenon by gathering more information about employees' experiences from how they think, feel, and intend to behave, thus, capturing the three main aspects of any human experience.

Through this ongoing change paradigm and tri-dimensional conceptualisation, this study revealed unique relationships between different components of attitudes and work-related outcomes, showing that all three components are important and worthwhile to be included for studying employees' experiences of ongoing change. The study highlights employees' attitudes to ongoing change are significantly associated with broader workplace outcomes. In particular, the findings show employees' emotions and thoughts about the ongoing changes positively predict their job satisfaction. Employees' thoughts and behavioural intentions to ongoing change positively predict their discretionary behaviour of OCBO. The results reflect ongoing change being a significant aspect of employees' daily work, contributing towards employees' overall

attitudes about their job and behaviours towards the organisation. Lastly, the study explored the role of OE at the facet level in terms of understanding employees' experiences of ongoing change. The results revealed that individuals who are willing to be creative and proactively engage in continuous learning and improvisation are more likely to report higher job satisfaction and OCBO. Taken together, these findings provide a more nuanced view of employees' attitudes to ongoing change, such that job satisfaction and OCBO are predicted by only certain aspects of the attitudes and only the motivational aspect of OE.

In sum, these results emphasise the aggregate effects of employees' experiences of ongoing change on employees' attitudes and behaviours towards their jobs and organisations. This study offers valuable insights to practitioners that may improve their awareness of the differences in perspective, acknowledging employees' attitudes to ongoing change is a valuable construct to consider in relation to workplace outcomes especially under today's turbulent working environments. This study is situated at the intersection of two groundswell views: employees' perspective of ongoing change and the tri-dimensional view to conceptualise employees' attitudes to change. The study aligns with a small number of ongoing change scholars and advocates the importance of studying employees' experiences of organisational change from the micro-level to acknowledge that change is pervasive, ongoing, and a normal part of employees' work life (e.g., Brazzale et al., 2020; Kiefer, 2005; Orlikowsk, 1996; Tsoukas & Chia, 2002). Also, the study sheds light on the effective tri-dimensional framework that captures the cumulative effects of ongoing change on employees at a broader, more comprehensive level (e.g., Borges & Quintas, 2020; Bouckennooghe, 2010; Oreg et al., 2011; Piderit, 2000).

Compared to what we already know for planned change contexts aimed at successfully implementing a change programme, there is still a long way to go for us to

understand ongoing change in contemporary working environments. Given the fast-evolving world we are living in, I hope this study triggers future research that continues to explore ongoing change at a micro-level and creates appropriate language to construct our understanding about ongoing change. Future research efforts can start answering questions such as: What do these ongoing changes mean for employees? How does their attitudes to ongoing change develop? What are the relationships between attitudes to ongoing change and other workplace outcomes? How can we integrate the knowledge obtained from both planned and ongoing change contexts? What are the resources that might help organisations and their people to continue to grow in a sustainable and steady pace under today's and tomorrow's dynamic environment? Answers to these questions will continue to improve employees' experiences of change at work, to the benefit of employees and their employing organisations.

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APPENDIX A**Participant Information Sheet****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 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 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 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 AUTEK, 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 AUTEK - Reference number; 18/401 Employee responses to change at work.

APPENDIX B

Full Survey

Employee Responses to Change

Please note that in this appendix, we provide only the section of the survey specifically relevant to the present study. Section headings are provided here for clarity of the presentation but were not in the original survey. Recall that the current study was embedded within a large doctoral study but with some separate variables, different hypotheses, and a different dataset.

Informed Consent Form

My name is Paulette Brazzale, and I am a PhD candidate, working with Professor Helena Cooper-Thomas at the Auckland University of Technology. We are interested in finding out about how employees respond to change at work, along with their experiences and perspectives on change. This survey has been designed to gather relevant information on the types of change you have experienced at work, how this is affecting you, how you are responding to this change as well as some background information, so we know the types of people who answered this survey. 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. Please be assured that your responses will be kept completely confidential. Questions cannot be left blank, but you can stop responding and quit at any point.

The study should take you around 16-22 minutes to complete, and you will receive \$1.80 for your participation in the full survey. It is also important for our research that you are currently employed for at least 20 hours per week. For our research to be useful it is important you answer as accurately as possible. We will be checking for careless answering, so please read all instructions carefully or we may need to reject your survey if it appears to be answered carelessly. Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason. If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail paulette.brazzale@aut.ac.nz. Thank you for providing us with your views and experiences.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are at least 18 years of age, working at least 20 hours per week, and that you are aware you may choose to terminate your participation in the study at any time and for any reason.

- ☐ I consent, begin the study (1)
- ☐ I do not consent, I do not wish to participate (2)

As you do not wish to participate in this study, please return your submission on Prolific by selecting the 'Stop without completing' button.

Before you start the study please switch off emails, messaging, and music so you can focus on the study.

Thank you !

Please enter your Prolific ID here:

Block 1: Demographics

D1_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
- ☐ 20 hours
- ☐ 21 hours
- ☐ 22 hours
- ☐ ...
- ☐ 80 hours or more

D2_Tenure

How long have you been with your current employer?

- ☐ Less than 6 months
- ☐ 6 months up to 1 year
- ☐ 1 year
- ☐ 2 years
- ☐ 3 years
- ☐ ...
- ☐ 20 years
- ☐ More than 20 years

D3_Industry

What industry do you work in?

- ☐ Government
 - ☐ Education
 - ☐ Farming, fishing and forestry
 - ☐ Financial services
 - ☐ Hospitality and tourism
 - ☐ Manufacturing and construction
 - ☐ Medical and health care
 - ☐ Retail and customer service
 - ☐ Science, communications and technology
 - ☐ Transportation and logistics
 - ☐ Other, please describe:
-

D10_Gender

Please indicate your gender

- ☐ Male
- ☐ Female
- ☐ Gender diverse

D4_Sector

What sector are you employed in?

- ☐ PRIVATE-FOR-PROFIT company, business or individual, for wages, salary or commissions
- ☐ PRIVATE-NOT-FOR-PROFIT, tax-exempt, or charitable organization
- ☐ Local GOVERNMENT (city, county, etc.)
- ☐ State GOVERNMENT
- ☐ Federal Government
- ☐ SELF-EMPLOYED in own business, professional practice, or farm
- ☐ Working WITHOUT PAY in family business or farm

D5_Firmsize

How many employees work in your organization?

- ☐ 1-4
- ☐ 5-9
- ☐ 10-19
- ☐ 20-49
- ☐ 50-99
- ☐ 100-249
- ☐ 250-499
- ☐ 500-999
- ☐ 1000 or more

D6_Age

What year were you born?

- ☐ 2001
- ☐ 2000
- ☐ 1999
- ☐ ...
- ☐ 1920

D7_Income

Would you please estimate your income in the past 12 months before taxes?

- ☐ Less than \$10,000
- ☐ \$10,000 to \$29,999
- ☐ \$30,000 to \$49,999
- ☐ \$50,000 to \$69,999
- ☐ \$70,000 to \$89,999
- ☐ \$90,000 to \$109,999
- ☐ \$110,000 to \$129,999
- ☐ \$130,000 to \$149,999
- ☐ \$150,000 or more
- ☐ Prefer not to answer

D8_Seniority

At what level of seniority is your job?

- ☐ Entry Level/Team Member
- ☐ Team Leader/Supervisor
- ☐ Middle Manager
- ☐ Senior/Executive Manager

D9_Education

- ☐ Less than high school degree
- ☐ High school graduate (high school diploma or equivalent including GED)
- ☐ Some college/university but no degree
- ☐ Associate degree/diploma in college/university (2-year)
- ☐ Bachelor's degree in college (4-year)
- ☐ Master's degree
- ☐ Doctor degree
- ☐ Professional degree (e.g. JD, MD, CPA)

What is the highest level of school you have completed or the highest degree you have received?

Block 2: Dependent Variables

In this block of questions, we ask about your current behaviors at work, feelings about your job, and future intentions.

DV1_OCBO (Organisation directed Organisational Citizenship Behavior)

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 (OCB4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Defend the organization when other employees criticize it (OCB3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Offer ideas to improve the functioning of the organization (OCB5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Express loyalty toward the organization (OCB6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep up with developments in the organization (OCB2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attend functions that are not required but that help the organizational image (OCB1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take action to protect the organization from potential problems (OCB7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate concern about the image of the organization (OCB8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

DV2_JS (Job Satisfaction)

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 (JS1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Each day at work seems like it will never end (JS2r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel fairly satisfied with my present job (JS3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider my job rather unpleasant (JS4r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find real enjoyment in my work (JS5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Block 3: Independent Variables

IV_CRRE (Change Recipients' Reactions to 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 think, act, and feel about these **current ongoing changes**? Please indicate how much you agree or disagree with the following statements.

	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)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe the ongoing changes will benefit this organization (CRRE_cog1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These ongoing changes are unpleasant for me (CRRE_em1r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These ongoing changes will <i>not</i> help the development of this organization (CRRE_cog6r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share whatever knowledge or information I have to help the ongoing changes be successful (CRRE_be1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe the ongoing changes are appropriate for this organization (CRRE_cog4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will work longer hours to implement the ongoing changes successfully (CRRE_be3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am skeptical about the outcomes of these ongoing changes (CRRE_cog7r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Due to these ongoing changes, I am <i>not</i> satisfied with my job anymore (CRRE_em6r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am trying to encourage my colleagues to adopt these ongoing changes (CRRE_be6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These ongoing changes are giving me a headache (CRRE_em3r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I strongly support the implementation of these ongoing changes (CRRE_be7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy with the ongoing changes (CRRE_em7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe the ongoing changes will meet their aims (CRRE_cog3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am trying to convince others about the benefits of these ongoing changes (CRRE_be4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These ongoing changes make me emotionally tired (CRRE_em4r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to help these ongoing changes be successful (CRRE_be2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These ongoing changes will have a positive impact on the organization (CRRE_cog5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am fighting for the success of the ongoing changes (CRRE_be5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe the ongoing changes will be very effective for this organization (CRRE_cog2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do <i>not</i> like these ongoing changes (CRRE_em5r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Block 4: Personality

PM_Openness to Experience

This is the final block of questions, great work you are nearly there!

Please use this list of adjectives describing common human characteristics to describe yourself as accurately as possible at present, not as you wish to be in the future.

Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly the same age.

	Extremely inaccurate (1)	Slightly inaccurate (2)	Neither accurate nor inaccurate (3)	Slightly accurate (4)	Extremely accurate (5)
Complex (O5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creative (O1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deep (O6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Imaginative (O2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intellectual (O4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Philosophical (O3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncreative (O7r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unintellectual (O8r)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovative (O9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Marker Variable: Information Processing

What is your opinion of these statements, as they relate to your current job?

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
My job requires me to monitor a great deal of information (Mkr 1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires that I engage in a large amount of thinking (Mkr 2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires me to keep track of more than one thing at a time (Mkr 3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires me to analyse a lot of information (Mkr 4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Careless Responding Instructed Item

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
If you are paying attention, please respond “strongly agree” to this question. (CarelessResponding)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX C: Inspection of Regression Analyses with the 13 Outliers ($N = 847$)

Table C1. *Inspection Results of Regression Analyses with Outliers Predicting Employees' Job Satisfaction*

		Job Satisfaction				
		B (BCCI 95%)	SE	β	t	p
Model 1	Constant	3.586 (3.537, 3.634)	.025		143.939	.000***
	Affective	.241 (.175, .308)	.034	.275	7.154	.000***
	Cognitive	.276 (.210, .343)	.034	.314	8.158	.000***
	Openness_creativity	.109 (.055, .163)	.028	.124	3.938	.000***
	Openness_intellect	.007 (-.047, .061)	.028	.008	.257	.797
Model 2	Constant	3.581 (3.532, 3.631)	.025		142.206	.000***
	Affective	.242 (.175, .310)	.034	.275	7.044	.000***
	Cognitive	.275 (.207, .344)	.035	.313	7.921	.000***
	Openness_creativity	.113 (.059, .168)	.028	.129	4.100	.000***
	Openness_intellect	.009 (-.046, .063)	.028	.010	.321	.748
	Affective x Openness_creativity	-.031 (-.098, .035)	.034	-.036	-.931	.352
	Cognitive x Openness_creativity	.000 (-.065, .064)	.033	.000	-.013	.990
	Affective x Openness_intellect	.038 (-.036, .113)	.038	.046	1.013	.311
	Cognitive x Openness_intellect	.042 (-.028, .112)	.036	.052	1.184	.237

Note. $N = 847$. B = unstandardised coefficient, SE = standard error, β = standardised coefficient beta, t = t-value. * $p < .05$, ** $p < .01$, *** $p < .001$. BCCI 95% (bias-corrected bootstrap confidence interval) is the robust bootstrapped confidence interval. Bootstrapping results are based on 1,000 bootstrap samples. Models predicting employees' job satisfaction. Model 1: $R^2 = .320$; $F(4,842) = 100.439$, $p < .001$. Model 2: $R^2 = .323$; $F(8,838) = 51.545$, $p < .001$.

Table C2. *Inspection Results of Regression Analyses with Outliers Predicting Employees' OCBO*

		Organisational Citizenship Behaviour directed to the Organisation (OCBO)				
		<i>B</i> (BCCI 95%)	<i>SE</i>	β	<i>t</i>	<i>p</i>
Model 1	Constant	3.421 (3.374, 3.468)	.024		142.441	.000***
	Cognitive	.124 (.064, .184)	.031	.149	4.054	.000***
	Behavioural	.342 (.282, .402)	.031	.410	11.166	.000***
	Openness_creativity	.071 (.018, .123)	.027	.085	2.649	.008**
	Openness_intellect	.054 (.002, .106)	.027	.065	2.033	.042*
Model 2	Constant	3.424 (3.376, 3.472)	.024		140.225	.000***
	Cognitive	.125 (.064, .185)	.031	.150	4.060	.000***
	Behavioural	.343 (.282, .403)	.031	.411	11.097	.000***
	Openness_creativity	.068 (.014, .121)	.027	.081	2.489	.013*
	Openness_intellect	.053 (.000, .105)	.027	.063	1.963	.050
	Cognitive x Openness_creativity	.017 (-.046, .080)	.032	.020	.533	.594
	Behavioural x Openness_creativity	-.020 (-.082, .042)	.032	-.023	-.621	.535
	Cognitive x Openness_intellect	-.032 (-.099, .034)	.034	-.042	-.951	.342
	Behavioural x Openness_intellect	.029 (-.038, .095)	.034	.036	.849	.396

Note. *N* = 847. *B* = unstandardised coefficient, *SE* = standard error, β = standardised coefficient beta, *t* = *t*-value. * $p < .05$, ** $p < .01$, *** $p < .001$. BCCI 95% (bias-corrected bootstrap confidence interval) is the robust bootstrapped confidence interval. Bootstrapping results are based on 1,000 bootstrap samples. Models predicting employees' OCBO. Model 1: $R^2 = .298$; $F(4,842) = 90.641$, $p < .001$. Model 2: $R^2 = .295$; $F(8,838) = 45.301$, $p < .001$.

APPENDIX D: Table D1 Summary of Principal Axis Factor Analysis for the Proposed Model.

Items	Factor loadings						
	Affective	Cognitive	Behavioural	JobSat	OCBO	Open_creativity	Open_intellect
Em1_These ongoing changes are unpleasant for me ^r	.740						
Em2_I feel uncomfortable with the ongoing changes that they are trying to implement ^r	.582						
Em3_These ongoing changes are giving me a headache ^r	.811						
Em4_These ongoing changes make me emotionally tired ^r	.829						
Em6_Due to these ongoing changes, I am not satisfied with my job anymore ^r	.558						
Cog1_I believe the ongoing changes will benefit this organization		.867					
Cog2_I believe the ongoing changes will be very effective for this organization		.824					
Cog3_I believe the ongoing changes will meet their aims		.684					
Cog4_I believe the ongoing changes are appropriate for this organization		.666					
Cog5_These ongoing changes will have a positive impact on the organization		.909					
Cog6_These ongoing changes will not help the development of this organization ^r		.641					
Be4_I am trying to convince others about the benefits of these ongoing changes			.693				
Be5_I am fighting for the success of the ongoing changes			.427				
Be6_I am trying to encourage my colleagues to adopt these ongoing changes			.556				
JS1_Most days I am enthusiastic about my work				-.799			
JS2_Each day at work seems like it will never end				-.651			
JS3_I feel fairly satisfied with my present job				-.790			
JS4_I consider my job rather unpleasant				-.700			
JS5_I find real enjoyment in my job				-.760			
OCB1_Attend functions that are not required but that help the organizational image					.677		
OCB2_Keep up with developments in the organization					.652		
OCB3_Defend the organization when other employees criticize it					.692		
OCB4_Show pride when representing the organization in public					.618		
OCB5_Offer ideas to improve the functioning of the organization					.628		
OCB6_Express loyalty toward the organization					.691		
OCB7_Take action to protect the organization from potential problems					.793		
OCB8_Demonstrate concern about the image of the organization					.801		
Open_Creat1_Creative						-.877	
Open_Creat2_Imaginative						-.712	
Open_Creat3_Uncreative ^r						-.753	
Open_Intellect1_Philosophical							.572
Open_Intellect2_Intellectual							.555
Open_Intellect3_Complex							.566
Open_Intellect4_Deep							.771
Open_Intellect5_Unintellectual ^r							.339

Note. Only absolute values greater than .3 are shown in the above table. All the relevant items illustrated in superscript were reverse-scored so that each item is scored in the same direction (e.g. higher score indicating higher-level of the construct). JobSat: job satisfaction, OCBO: organisational citizenship behaviour directed to the organisation, Open: Openness.

Table D2

The Revised Change Recipients' Reaction (CRRE) Scale Under the Ongoing Change Context

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?

①	②	③	④	⑤
Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

1	I feel uncomfortable with the ongoing changes that they are trying to implement	①	②	③	④	⑤
2	I believe the ongoing changes will benefit this organization.	①	②	③	④	⑤
3	These ongoing changes are unpleasant for me.	①	②	③	④	⑤
4	These ongoing changes will not help the development of this organization.	①	②	③	④	⑤
5	I believe the ongoing changes are appropriate for this organization.	①	②	③	④	⑤
6	<i>I share whatever knowledge or information I have to help the ongoing changes be successful.</i>	①	②	③	④	⑤
7	<i>I am willing to help these ongoing changes be successful.</i>	①	②	③	④	⑤
8	I believe the ongoing changes will be very effective for this organization.	①	②	③	④	⑤
9	<i>I am skeptical about the outcomes of these ongoing changes.</i>	①	②	③	④	⑤
10	Due to these ongoing changes, I am not satisfied with my job anymore.	①	②	③	④	⑤
11	I am trying to encourage my colleagues to adopt these ongoing changes.	①	②	③	④	⑤
12	These changes are giving me a headache	①	②	③	④	⑤
13	<i>I will strongly support the implementation of these ongoing changes.</i>	①	②	③	④	⑤
14	<i>I am happy with the ongoing changes.</i>	①	②	③	④	⑤
15	I believe the ongoing changes will meet their aims.	①	②	③	④	⑤
16	I am trying to convince others about the benefits of these ongoing changes.	①	②	③	④	⑤
17	These ongoing changes make me emotionally tired.	①	②	③	④	⑤
18	<i>I will work longer hours to implement the ongoing changes successfully.</i>	①	②	③	④	⑤
19	These ongoing changes will have a positive impact on this organization.	①	②	③	④	⑤
20	I am fighting for the success of the ongoing changes.	①	②	③	④	⑤
21	<i>I do not like these ongoing changes.</i>	①	②	③	④	⑤

Note. CFA results suggested the removal of the italicised items increase the validity of the instrument.

APPENDIX E

Table E1

Correlation Matrix for the Study Variables and the Marker Variable

Variable	Mean	SD	1	2	3	4	5	6	7
1 Affective	3.680	.839	(.838)						
2 Cognitive	3.434	.969	.678**	(.934)					
3 Behavioural	3.199	.876	.391**	.625**	(.810)				
4 Openness_creativity	4.090	.791	.110**	.125**	.123**	(.817)			
5 Openness_intellect	3.958	.615	.082*	.150**	.114**	.439**	(.706)		
6 Job Satisfaction	3.594	.864	.512**	.526**	.403**	.179**	.130**	(.895)	
7 OCBO	3.421	.832	.235**	.423**	.528**	.185**	.160**	.568**	(.900)
8 Job Requirements	4.160	.774	.052	.231**	.254**	.153**	.236**	.232**	.353** (.848)

Note. $N = 834$. * $p < .05$, ** $p < .01$, *** $p < .001$. Scale reliabilities (Cronbach's α) are on the diagonal. OCBO = Organisational citizenship behaviours directed to the organisation.

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APPENDIX F

Ethics Approval Letter

31 October 2018

Helena Cooper-Thomas
Faculty of Business Economics and Law

Dear Helena

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

I wish to formally advise you that a subcommittee of the Auckland University of Technology Ethics Committee (AUTEC) has **approved** your ethics application.

This approval is for three years, expiring 31 October 2021.

Standard Conditions of Approval

1. 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>.
2. 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>.
3. 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>.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. 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. You are reminded that 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.

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

Yours sincerely,



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