The London School of Economics and Political Science

A multi-study investigation of the role of psychological needs in understanding behavioural reactions to psychological contract breach

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Declaration

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Abstract

A significant body of empirical work attests to the negative consequences of psychological contract breach for employees and organizations. Two dominant explanations draw on social exchange theory and affective-events theory arguing that breach influences employees' felt reciprocity and feelings of violation respectively, which in turn influences their contributions at work. However, breach has been found to produce stronger effect on attitudes versus behaviours (Conway & Briner, 2009), suggesting that there is insufficient knowledge about employees' motivation after the experience of psychological contract breach. Herein lies the starting point of this thesis, which adopts a thwarted psychological need perspective to examine the motivational mechanism between psychological contract breach and employees' behaviour. The focus on thwarted needs offers an alternative explanatory reason for why psychological contract breach matters, and extends the impact of breach from cognitions and emotions to psychological needs.

With three empirical studies, this thesis aims to explore the role of thwarted need to control in understanding how employees' respond to psychological contract breach. Study 1, a scenario-based experiment, supports the idea that breach can thwart employees' state of need to control, which can in turn influence their intentions to engage in citizenship behaviours. Study 2 consists of a time-lagged survey with multi-source data of 163 Taiwanese employees in the service industry. The study findings reveal that thwarted need to control mediates the effect of breach on employees' citizenship behaviours, and that employees' implicit theories of employee-organization relationship moderates this mediating process. Study 3 consists of a three time-point survey of 124 EMBA Taiwanese employees over a six-month period. Study 3 replicates and extends the findings of study 2 by demonstrating that thwarted need to control provides a unique explanation (beyond established mechanisms such as felt obligation and feelings of violation) to explaining why employees withdraw their citizenship behaviour towards individuals, demonstrating its uniqueness in the aftermath of employees' breach experience. This thesis expands existing knowledge of why psychological contract breach matters, and discusses the implications and directions for future research.

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Chapter 1:

Introduction

"An understanding of the psychological contract is inadequate if it is not grounded in the theory of psychological needs … much of the current research and commentary on psychological contracts either misconstrues, underemphasizes, or ignores the core psychological needs relevant to the psychological contract."

<div style="text-align: right">Meckler, Drake, and Levinson (2003, p. 218)</div>

The exploration of psychological contracts began in the 1960s, but it was the seminal work of Rousseau (1989) that revitalized interest in employees' perceptions of their exchanges with organizations. As Rousseau (1989, p. 123) defined it, a *psychological contract* captures "an individual's beliefs regarding the terms and conditions of a reciprocal exchange agreement between the focal person and another party"; these beliefs "serve to bind together individuals and organizations and regulate their behaviour, making possible the achievement of organizational goals" (Robinson, Kraatz, & Rousseau 1994, p. 137). Psychological contracts have been recognized as an important construct in understanding and managing employee-organization relationships (EORs). For example, psychological contracts can shape interactions between individuals and their organizations or organizational representatives (e.g. supervisors; Rousseau, 1995) and can impact employees' work attitudes and behaviours (e.g. Zhao, Wayne, Glibkowski, & Bravo, 2007), the interpersonal relationships between employees and supervisors (e.g. Kiewitz, Restubog, Zagenczyk, & Hochwarter, 2009), and organizational effectiveness (e.g., Conway & Coyle-Shapiro, 2012).

Extraordinary progress has been made since the 1990s in psychological contract research. Significant research has been conducted on the content of psychological contracts (i.e. transactional, relational, or ideological currency; Rousseau, 1995; Thompson & Bunderson, 2003), contract development (De Vos, Buyens, & Schalk, 2003), and the consequences that psychological contract breach or fulfilment have on employee and organizational outcomes (Conway & Briner, 2009; Zhao et al., 2007). In the latest review on psychological contract research, Conway and Briner (2009) provided a comprehensive introduction to the history of psychological contract research as well as reviews of the two main strands of research: such contracts' content and the breach of such contracts. Conway and Briner concluded that the content of psychological contracts has an inconsistent impact but that perceived breach have stronger impacts; they amassed an array of evidence related to work cognitions, work behaviours, and employee well-being (e.g. Bal, De Lange, Jansen, & Van Der Velde, 2008; Robbins, Ford, & Tetrick, 2012; Zhao et al., 2007), confirming that psychological contracts matter to employees. As Conway and Briner stated, "breach provides the most compelling idea for linking the psychological contract to outcomes" (p. 94).

A significant body of empirical work attests to the negative consequences that psychological contract breach has for employees and organizations. Three meta-analyses (e.g. Bal et al., 2008; Robbins et al., 2012; Zhao et al., 2007), which, in sum, included more than 100 empirical studies on breach and work outcomes, have suggested that psychological contract breach has important implications for employees' thoughts, behaviours, and well-being. The explanations of psychological contract breach's impact

rely on either social exchange theory (Blau, 1964) or affective-events theory (Weiss & Cropanzano, 1996). In brief, social exchange theory suggests that psychological contract breach reduces employees' felt obligation, which in turn, decreases their willingness to contribute at work. Affective-events theory places emotional responses at the centre: breach trigger feelings of violation, which then lead to negative attitudes and behaviours towards the organization. Both dominant theories seem to offer insufficient knowledge about how employees behaviourally respond to psychological contract breach, given that breach affects employee behaviours less than employee attitudes (Conway & Briner, 2009). Therefore, this thesis aims to provide an alternative motivational underpinning—a thwarted-psychological-need perspective—to complement the current explanations regarding psychological contract breach and employees' behavioural reactions.

By proposing a thwarted-need perspective of psychological contract breach, I advance the knowledge of psychological contracts and address the research gaps described at the start of this chapter regarding the desire to determine psychological needs' role in psychological contract research. Meckler et al. (2003) also suggested that a discussion of psychological needs is the key to determining how psychological contracts motivate employees' behaviours in the workplace. To explore how thwarted needs and psychological contract breach interact, this thesis offers an alternative explanation for why breach matters to employee behaviours, thus extending the psychology of breach impacts beyond the established areas such as rational calculation and affective feelings.

The overall research purpose of this thesis is to offer a thwarted-need perspective to explain how psychological contract breach impacts employee behaviours. The general structure of this thesis is outlined below.

Chapter 2 presents the literature review. I first review the psychological contract literature and then the literature on psychological needs. Subsequently, I integrate psychological needs with psychological contract breach specifically focusing on the role of thwarted needs in understanding employees' responses to psychological contract breach. The key research questions that drive the following empirical studies are also presented.

Chapter 3 This chapter presents the research design and methodologies for the three studies in this thesis. The rationale behind each study is provided, including the research methods, the participants, and the analytical strategies. Although this chapter offers an overview of the rationale for the research, more details are presented in each of the empirical chapters.

Chapter 4, 5, and 6 present the empirical studies of this thesis. **Chapter 4** comprises a scenario-based experiment aimed at exploring the role that psychological needs play in explaining how employees interpret and respond to psychological contract breach. Data are presented from two samples: the alumni of a Taiwanese university, and online participants from Amazon Mechanical Turk (MTurk). A discussion of the findings is presented, as are the study's limitations and the directions for future research.

Chapter 5 presents the second study. This chapter adopts a thwarted-need lens to explore the role of individual differences in the relationship between psychological contract breach and employee behaviours. Data are presented from supervisor-subordinate dyads in the Taiwanese service industry. A discussion of the study's contributions is presented, as are its limitations and future avenues for research.

Chapter 6 presents the final empirical chapter. This chapter aims to address whether thwarted control provides a unique contribution to understand how employees react to psychological contract breach. This study is based on three-wave data from a sample of executive master of business administration (EMBA) graduates collected in Taiwan. A discussion of the study's findings is presented, as are its limitations and the directions for future research.

Chapter 7 presents a discussion of this thesis that synthesizes the findings from the three empirical chapters. The theoretical contributions and practical implications are discussed, followed by the overall limitations in this thesis and the future avenues of research.

Chapter 2:
Literature Review: Psychological Contracts and the Need to Control

2.1 Chapter overview

As discussed in Chapter 1, a psychological contract is an employee's belief concerning the agreed-upon terms and conditions within the EOR (Rousseau, 1989). Breach of psychological contracts affect employee outcomes (Conway & Briner, 2009). Levinson, Price, Munden, Mandl, and Solley (1962) indicated that psychological needs are the foundation of psychological contracts, which capture the interaction between how the organization fulfils its employees' needs and how the employees fulfil the organization's needs (Levinson et al., 1962). Although the role of psychological needs was prominent in early conceptualizations, surprisingly little work has been conducted on the connection between psychological contracts and psychological needs. Herein lies the starting point of this thesis, which asks an important question regarding the psychological contracts literature: How does the psychological need lens help expand current understanding about psychological contract breach? What are the implications for employees' psychological needs if their psychological contracts are breached? Do perceptions of contract breach thwart employees' psychological needs? How do employees react when their psychological needs are thwarted by breach? Figure 2.1 presents the overarching research questions that guide this thesis.

Figure 2.1. Overarching Research Questions.
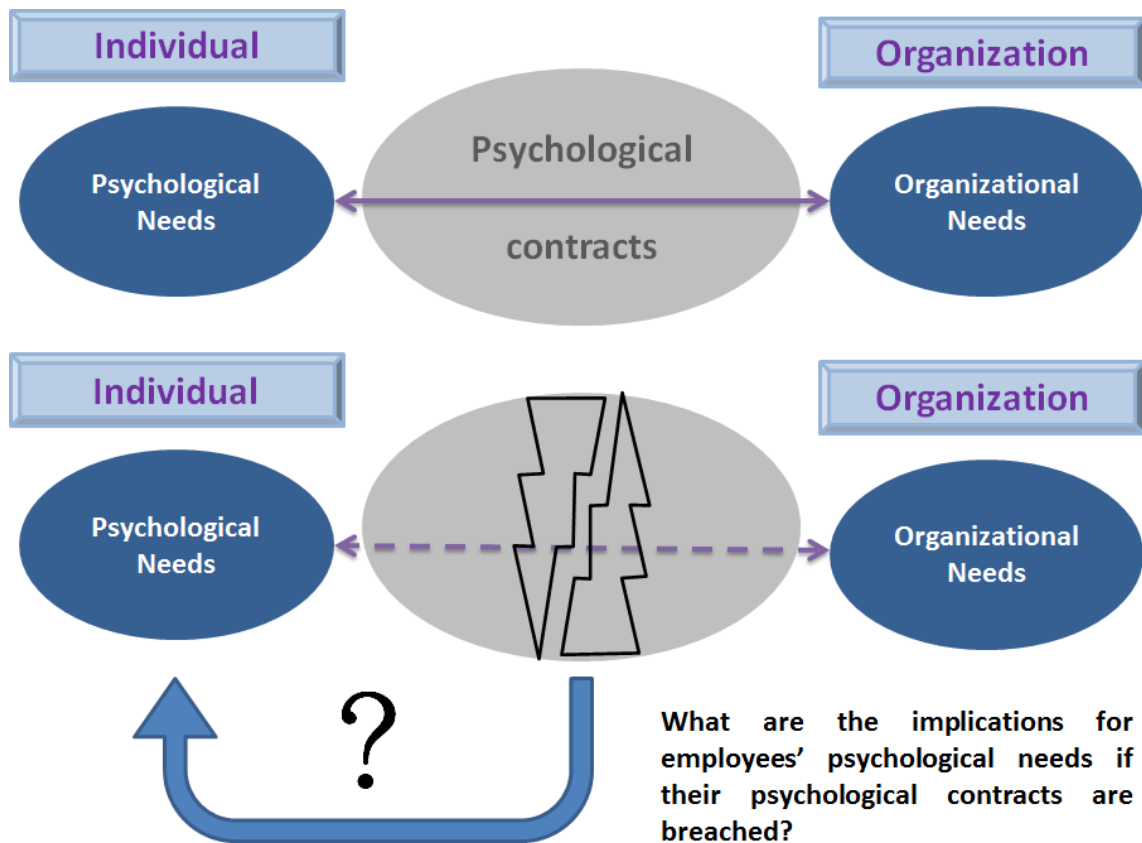
As noted by Shore and Tetrick (1994), psychological contracts provide the expected

contingency by specifying the "order and continuity in a complex employment

relationship, allowing for predictability and control" (p. 95). That is, one of the crucial

functions of employees' psychological contracts is offering them a sense of control in

their relationships with their employers; the experience of psychological contract breach

may thwart employees' psychological need to control. Therefore, to address the

overarching research questions (Figure 2.1), this thesis focuses on the role that a thwarted

need to control plays in psychological contract breach. As shown in Figure 2.2, this

chapter introduces two streams of literature that underpin this thesis. First, in Section 2.2,

I present an overview of the psychological contract research. Next, in Section 2.3, I focus

specifically on psychological contract breach. Then, in Section 2.4, I introduce the concept of psychological needs, especially the need to control, and present arguments regarding this need's potential role in employees' experience of psychological contract breach. Finally, in Section 2.5, I outline the research aims of this thesis.

Figure 2.2. Overview of The Literature Review.

```
┌─────────────────────┐              ┌─────────────────────┐
│   Psychological     │              │ Psychological Needs │
│     Contracts       │              │                     │
└─────────────────────┘              └─────────────────────┘
         │                                      │
  ┌──────────────────┐              ┌──────────────────┐
  │  Psychological   │              │ Thwarted Need to │
  │ Contract Breach  │              │     Control      │
  └──────────────────┘              └──────────────────┘
              │                          │
        ┌───────────────────────────────────┐
        │   A Perspective of Thwarted       │
        │      Need to Control for          │
        │   Psychological Contract          │
        │           Breach                  │
        └───────────────────────────────────┘
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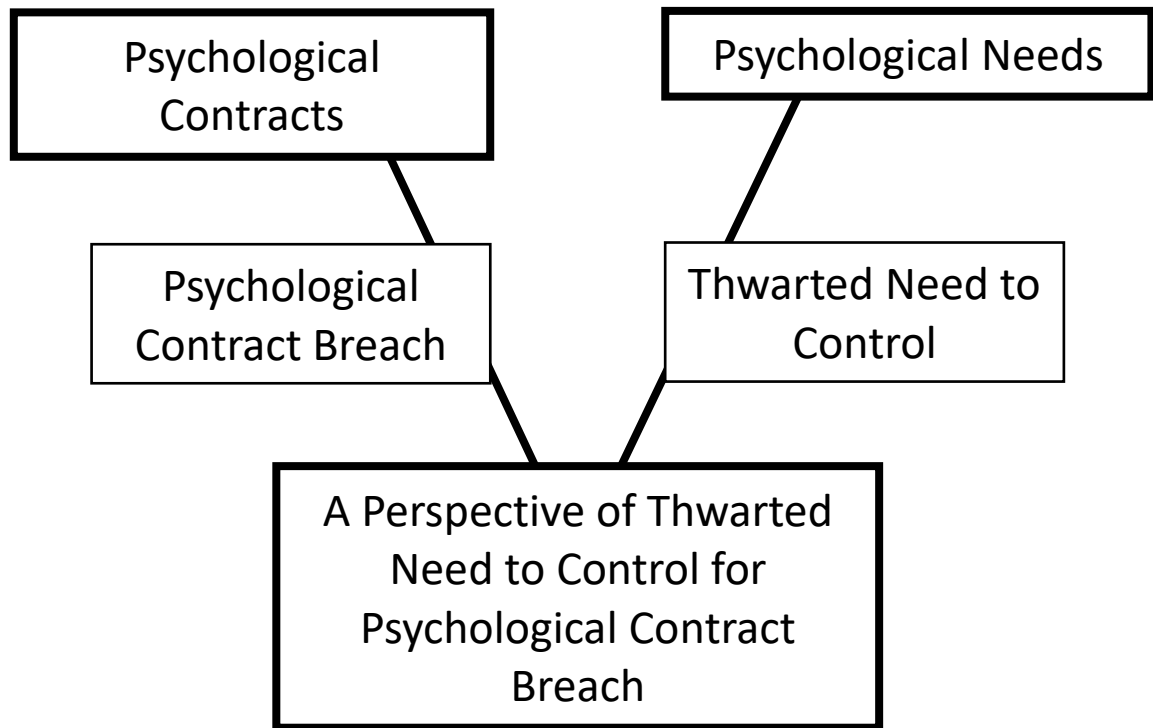
2.2 Psychological contracts

Scholars have mainly addressed three research questions:

- What are the contents of psychological contracts?

- How are psychological contracts developed?

- What are the consequences of psychological contract breach?

Furthermore, in each of these topics, researchers have demonstrated how either individual or organizational factors can shape the impact on employees. Figure 2.3 depicts the major grounds of the psychological contract research.

Figure 2.3. Major Focuses of The Prior Research.
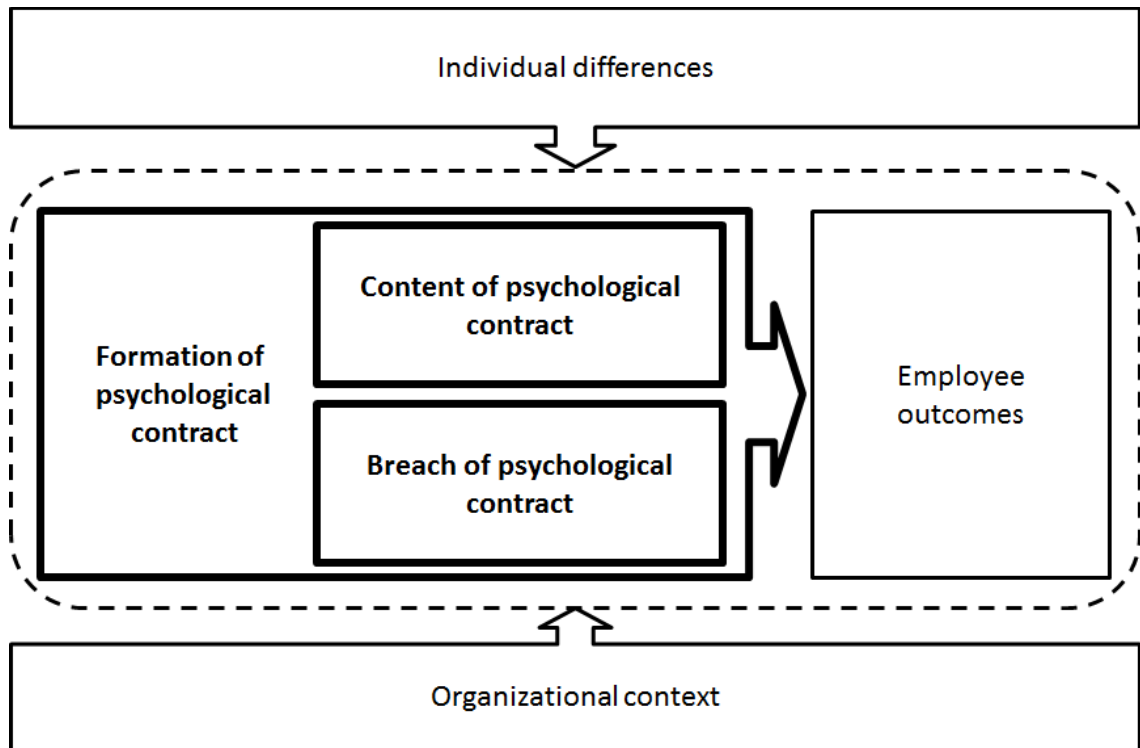
In this literature review on psychological contracts, I begin with the content of psychological contracts in Section 2.2.1. Then, I focus on the formation of psychological contracts (Section 2.2.2) and on breach of psychological contracts (Section 2.3.3). Figure 2.4 summarizes the empirical findings that are reviewed in the following sections.

Figure 2.4. Overview of The Empirical Research on Psychological Contracts.

Individual Factors
- Age
- Gender
- Conscientiousness
- Extraversion
- Neuroticism
- Agreeableness
- Openness
- Individualism
- Equity sensitivity
- Locus of control
- Careerism
- Work values
- Work centrality

Contextual Factors
- POS
- Perceived investment
- Reward system
- Training
- Job enrichment
- Organizational corporate citizenship

Formation of psychological contract

Content of psychological contract
- Transactional
- Relational
- Balanced
- Ideological

Individual Factors
- Employee performance
- Age
- Gender
- Conscientiousness
- Agreeableness
- Self-control
- Traditionality
- Time perspective
- Careerism
- Machiavellianism
- Hostile attribution style
- Breach attribution
- Empathetic concern
- Emotional regulation strategy

Contextual Factors
- Organizational performance
- Organizational change
- Organizational policy
- POS
- LMX
- Trust
- Power distance
- Workplace familism
- Job embeddedness

Breach of psychological contract

Work-related cognitions
- Job satisfaction
- Job engagement
- Organizational commitment
- Organizational identification
- Organizational trust
- Organizational loyalty
- Organizational cynicism
- Felt obligation
- Perceived organizational support
- Turnover intention
- Revenge cognition
- Fairness perception

Work-related behaviours
- Organizational citizenship behaviours
- Counterproductive workplace behaviours
- Proactive behaviours
- Innovative behaviours
- Decision-making behaviours
- Job performance

Employee well-beings
- Burnout
- Negative affection
- Sick leave
- Mental health

2.2.1 Contents of psychological contracts

Rousseau's (1989) definition of psychological contracts highlighted the three main attributes of these contracts: They are subjective, conditional, and reciprocal. First, psychological contracts are subjective because they are based on individuals' beliefs or perceptions regarding exchange agreements. Organizations' or employees' promises can be implicitly defined and inferred from the other parties' actions or reactions (Montes & Zweig, 2009). Second, psychological contracts are conditional, as they are based on

exchanges in which "the fulfilment of promissory obligations by one party is contingent upon the fulfilment of obligations by the other" (Coyle-Shapiro & Parzefall, 2008, p. 20). Third, psychological contracts are reciprocal because they involve beliefs regarding the mutual obligations that both parties have in the relationship. Each party's beliefs shape its contributions to the other party, and the subsequent contributions of each party can either reinforce or erode the parties' beliefs regarding the reciprocal exchange (Conway & Coyle-Shapiro, 2012).

Scholars who have focused on content have differentiated psychological contracts into three types: transactional, relational, and balanced (Rousseau, 1995; Rousseau & Wade-Benzoni, 1994). Transactional psychological contracts are characterized by an economic focus; they lead to short-term employment relationships in which performance requirements and mutual obligations are clearly specified. Relational psychological contracts lead to long-term employment relationships in which mutual obligations are less specified and in which exchanges are based on socio-emotional resources. Balanced psychological contracts lead to long-term employment relationships in which performance requirements and mutual obligations are clearly specified: "an open-ended relational emphasis with the transactional feature of well specified performance-reward contingencies" (Hui, Lee, & Rousseau, 2004, p. 312).

Transactional and relational psychological contracts have received far more attention in the literature than have balanced contracts; this has been facilitated by the ease with which these two types map onto economic and social exchange, respectively (Blau, 1964).

Overall, based on empirical evidence, scholars have suggested that relational and transactional psychological contracts have differential effects on attitudinal outcomes (Bal & Kooij, 2011; Hamilton & von Treuer, 2012; Hornung & Glaser, 2010) but that their effects on behavioural outcomes are mixed (Chambel & Alcover, 2011; Hui et al., 2004; Zagenczyk, Restubog, Kiewitz, Kiazad, & Tang, 2014). Thus, the content of an individual's psychological contract may or may not be a key driver of that person's employee behaviour.

In addition to transactional, relational, and balanced psychological contracts, a fourth content dimension is emerging: ideological. Thompson and Bunderson (2003) argued that psychological contracts include ideological rewards, which Blau (1964) viewed as effective inducements that employees see as intrinsically rewarding. Thompson and Bunderson (2003) defined *ideological currency* as "credible commitments to pursue a valued cause or principle (not limited to self-interest) that are implicitly exchanged at the nexus of the individual-organization relationship" (p. 574).

Empirically, ideological psychological contracts are different from other types in terms of employees' vulnerability and the consequences when they are breached. Ideological psychological contracts are more resistant to minor breach (Vantilborgh et al., 2012), and breach of ideological psychological contracts require more (rather than less) work effort to protect employees' values and self-concepts (O'Donohue & Nelson, 2007; Vantilborgh et al., 2014). Overall, the emerging empirical evidence supports the distinctiveness of ideological currency with regard to the other three types of psychological contracts.

In sum, transactional, relational, balanced, and ideological psychological contracts are distinct types. Their effects on employee contributions have been explored, but the evidence has been mixed. Based on this brief look at the types of psychological contracts, some important questions arise from the literature: Where do the contents of psychological contracts come from? What factors determine the formation of psychological contracts? In the next section, I introduce psychological contract formation.

2.2.2 Formation of psychological contracts

Rousseau (2001) drew on cognitive schema to understand the contract-formation process. Psychological contracts are schema consisting of promises, obligations, relationships, and ideologies regarding the exchange between employees and their organizations. There are four phases in the formation of a psychological contract (Rousseau, 2001): pre-employment, recruitment, socialization, and revision. Employees form psychological contracts from beliefs about their occupations (based on social norms) before commencing employment. During socialization, new information from a variety of sources in the organization helps employees to develop fully formed psychological contracts.

Sherman and Morley (2015) elaborated on Rousseau's (2001) work by proposing a schema-based framework to delineate the carryover effect that employees' prior psychological contracts have on their formation of new psychological contracts. Kim and Choi (2010) used empirical evidence to show that the employees whose expectations

regarding their former employers were unmet held fewer beliefs about their new employers' obligations; this relationship was mediated by these employees' lower trust in their new organizations.

Psychological Contract Formation: Individual factors

Prior to 2003 (Bocchino, Hartman, & Foley, 2003), the formation of psychological contracts had not received much research attention; since then, however, progress has been made in understanding the individual and organizational factors that shape psychological contract types. Individual factors influence perceptions and interpretations of employee and organizational obligations; they also play an important role because of the subjectivity of psychological contracts. Here, I review the roles that demographics, dispositions, and values play in the development of psychological contract types.

Demographically, the weight of the evidence supports the idea that age and gender affect the formation of various types of psychological contracts. When employees get older, they develop more realistic and accurate psychological contracts with their organizations (Carstensen, Isaacowitz, & Charles, 1999), so older employees have greater acceptance of unbalanced relationships (Coyle-Shapiro, 2002) and fewer perceptions of employer obligations (Payne, Culbertson, Boswell, & Barger, 2008) compared to younger employees. The empirical evidence generally supports this idea, suggesting that older employees have fewer transactional and relational psychological contracts than younger employees do (Bal & Kooij, 2011; Clinton & Guest, 2014; Ravlin, Liao, Morrell, Au, & Thomas, 2012).

Gender appears to influence the formation of psychological contracts; this is potentially as a result of the differences between men's and women's work values and work rewards (Mottazl, 1986); these differences may lead to different expectations regarding their relationships with their organizations. For instance, before starting employment, women typically develop stronger employer obligations than men in terms of career development, job content, social atmosphere, and work-life balance (De Vos, De Stobbeleir, & Meganck, 2009). After commencing employment, women typically report higher levels of employer obligations than men with regard to good pay, growth opportunities, job support, job security, and personal-needs support (Tallman & Bruning, 2008).

Scholars, through empirical studies, have examined how personality affects psychological contracts. In four studies, researchers have investigated the associations between the Big-Five personality traits and transactional or relational psychological contracts (Raja et al., 2004; Tallman & Bruning, 2008; Vantilborgh et al., 2013; Zhao & Chen, 2008). However, the findings of these studies are inconsistent. For example, Tallman and Bruning (2008) and Raja et al. (2004) argued that extroverted employees prefer to form relational contracts because they need long-term relationships to satisfy their enthusiasm at work. Only Tallman and Bruning (2008) found support for this argument, however; Raja et al. (2004) found a positive relationship between extroversion and transactional psychological contracts. Similarly, Zhao and Chen (2008) postulated that conscientiousness is positively associated with relational contracts because conscientious employees are more willing to delay gratification. Zhao and Chen's findings in a Chinese sample supported this view,

but Vantilborgh et al. (2013) reported a null association between conscientiousness and relational contracts in a Belgium sample.

Employee values also shape the content of psychological contracts, as values determine individuals' perceptions of their relationships with their organizations. For instance, highly careerist employees tend to view their relationships with organizations as stepping stones to their next jobs, which leads them to develop transactional (not relational) psychological contracts with their organizations (Braekken & Tunheim, 2013; De Vos et al. 2009). In addition, individuals with higher work centrality are more willing to invest resources such as time and energy in their work and thus are more likely to develop relational psychological contracts (Bal & Kooij, 2011). De Vos et al. (2009) found that graduates who possess higher work centrality are less likely to expect promises relating to work-family balance because they already prioritize work in their lives.

Psychological Contract Formation: Contextual factors

Psychological contract formation is influenced not only by the employees but also by the organization. Suazo, Martínez, and Sandoval (2009) proposed that contextual factors send signals that have profound effects on the formation of psychological contracts. Suazo et al. (2009) suggested that signals are transmitted in a variety of human resource practices. Empirical evidence supports this idea, as human resource practices that include training, education, and job enrichment are positively related to the development of relational and balanced currency—and negatively related to the development of transactional currency (Bal, Kooij, & De Jong, 2013; Chien & Lin, 2013).

Reward systems also shape the formation of psychological contracts. If organizations tie rewards exclusively to the completion of job responsibilities, employees are likely to focus on outcomes and to thus develop transactional psychological contracts. In contrast, if organizations provide personal care and individualized support to employees regardless of their performance, the employees are likely to develop organizational commitment, leading to relational psychological contracts. This is as a result of organizations valuing their employees' feelings. Lee, Liu, Rousseau, Hui, and Chen (2011) empirically demonstrated that employees tend to develop transactional psychological contracts when they receive more job rewards and to develop relational psychological contracts when they receive more organizational support.

In addition to examining how psychological contracts are formed and how individual and contextual factors shape them, another emerging question regarding psychological contract formation is this: When do psychological contracts reform, and what forces drive such revisions of psychological contracts? As Parks and Kidder (1994) suggested, environmental change is a direct force that facilitates the reformation of psychological contracts. Chaudhry, Wayne, and Schalk (2009) argued that changes in the environment act as triggers, shifting individuals from automatic processing to conscious attention of their contexts; this evokes a sense-making process that revises the psychological contracts. Following this sense-making idea, Chaudhry, Coyle-Shapiro, and Wayne (2011) proposed that organizational change induces revisions in employees' relational psychological contracts through their cognitive attributions regarding the responsibility for

organizational change. Chaudhry et al.'s findings showed that foreseeability (the extent to which the pending organizational change was anticipated) was a significant factor in facilitating upward revisions of employees' relational contracts but that intentionality (the extent to which the change was attributed to the organization) was associated with downward revisions of relational contracts.

In brief, the accumulated evidence includes the various contents of psychological contracts and the antecedents that shape each type of content. This strand of research offers knowledge regarding psychological contracts; however, the implications that psychological contracts have for employees and organizations have not yet been explicitly articulated. In the latest review on psychological contract research, Conway and Briner (2009) concluded that the research on psychological contract breach demonstrates the impact of psychological contracts. Compared to other focuses in the research on psychological contracts, breach perception has been relatively well-researched, and scholars in this area have amassed an array of consequences, confirming that psychological contracts make a difference to employees. As suggested, psychological contract breach demonstrate the significance of psychological contracts' influence on employee outcomes (Conway & Briner, 2009). Now, I focus on introducing the research on psychological contract breach.

2.3 Psychological contract breach

2.3.1 Overview and definition

Psychological contract breach has garnered significant research attention. This construct was first introduced in Rousseau's (1989) seminal work. Rousseau stated that psychological contracts impact employees' work cognitions and behaviours when organizations fail to "respond to an employee's contribution in ways the individual believes they are obligated to do so" (Rousseau, 1989, p. 128). Morrison and Robinson (1997) engaged in a detailed conceptual discussion of psychological contract breach in which they defined it as "the cognition that one's organization has failed to meet one or more obligations within one's psychological contract in a manner commensurate with one's contributions" (Morrison & Robinson, 1997, p. 230). This definition has two major implications for the conceptualization of breach. First, psychological contract breach is a perceptual product of cognitive appraisal, so it is distinct from emotional and affective feeling. Second, psychological contract breach is derived from a reciprocal comparison between the contributions of the organization and the employee. As Morrison and Robinson (1997) explained, "an employee first considers the ratio of what he or she has received relative to what the organization promised and then compares this ratio to the ratio of what the employee has provided the organization relative to what he or she promised to provide" (p. 240). Therefore, a broken promise from an organization does not always lead to a perception of breach.

Psychological contract breach is distinct from psychological contract fulfilment. Psychological contract fulfilment relates to how well an organization fulfils its employees'

psychological contracts and it is defined as "the extent to which one party to the contract deems the other has met its obligations" (Lee et al., 2011, p. 204). Although it may seem that fulfilment and breach are simply opposite ways of describing employees' evaluations of their psychological contracts, these terms actually reflect different natures of reciprocation. This distinction can be drawn theoretically and empirically. Theoretically, greater fulfilment does not lead to fewer breach, or vice versa, as it is possible for organizations to fulfil certain elements of employees' psychological contracts but breach other elements. In other words, it is possible for an employee to experience breach and fulfilment concurrently, and it is also feasible that a contract breach could trigger the organization to engage in fulfilment as a compensatory measure. Fulfilment and breach can trigger different relational changes such that fulfilment shapes the relationship positively and breach disrupts the relationship and induces negative change (Shore, Coyle-Shapiro, & Chang, 2018). Conway, Guest and Trenberth (2011) provided empirical support for this distinction and stated that a change between breach and fulfilment can have varied effects on employee outcomes related to affective well-being, job satisfaction, work satisfaction, and organizational commitment. Conway et al. found that an increase in breach consistently predicted all employee outcomes but that an increase in fulfilment only predicted organizational commitment and work satisfaction; this supports the idea that breach and fulfilment have different meanings and consequences.

Furthermore, psychological contract breach is distinct from psychological contract violation. Psychological contract violation captures employees' emotional and affective reactions as they arise from experiences of psychological contract breach (Morrison &

Robinson, 1997); this violation is defined as "an intense reaction of outrage, shock, resentment, and anger" (Rousseau, 1989, p. 129). Robinson and Morrison (2000) proposed that psychological contract breach and psychological contract violation are distinct, offering empirical support for this differentiation despite the concepts' high correlation (correlation of 0.72 in Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008; correlation of 0.68 in Robinson & Morrison, 2000). First, in Robinson and Morrison's (2000) factor analysis, breach and violation had high loadings on different factors. Second, Robinson and Morrison's regression analysis of the antecedents of breach and violation revealed different patterns. Furthermore, a moderation analysis showed that violation is amplified when a breach is attributed to an organization's intention or when an employee believes the treatment to be unfair (Robinson and Morrison, 2000). In sum, psychological contract breach and psychological contract violation are highly associated but distinct, with violation being an emotional reaction following the perception of a breach.

To determine why psychological contracts are significant to employees and organizations, In the following section, I consider the consequences of psychological contract breach.

2.3.2 What are the consequences of psychological contract breach?

Some scholars have argued that psychological contract breach shape employees' thoughts, behaviours, and well-being, and at least three meta-analyses (Bal et al., 2008; Robbins et al., 2012; Zhao et al., 2007) on breach and employee consequences have provided strong empirical evidence to support this assertion. Table 2.1 presents the empirical evidence for each type of consequence.

Table 2.1. Consequences of Psychological Contract Breach

Type of consequence	Target construct	Empirical evidence
Work cognition at the job level	Job satisfaction	▪ Rayton & Yalabik (2014) ▪ Conway et al. (2011) ▪ Rigotti (2009) ▪ Rosen, Chang, Johnson, & Levy (2009) ▪ Topa, Francisco Morales, & Moriano (2009) ▪ Suazo (2009) ▪ Orvis, Dudley, & Cortina (2008) ▪ Kickul, Lester, & Belgio (2004) ▪ Gakovic & Tetrick (2003) ▪ Tekleab & Taylor (2003)
	Job engagement	▪ Rayton & Yalabik (2014) ▪ Chambel & Oliveira-Cruz (2010)
Work cognition at the organizational level	Organizational commitment	▪ Li, Wong, & Kim (2016) ▪ Agarwal & Bhargava (2014) ▪ Conway, Kiefer, Hartley, & Briner (2014) ▪ Lapointe, Vandenberghe, & Boudrias (2013) ▪ Cassar & Briner (2011) ▪ Conway et al. (2011) ▪ Lapalme, Simard, & Tremblay (2011) ▪ Ng, Feldman, & Lam (2010) ▪ Rigotti (2009)

		▪ Rosen et al. (2009)
		▪ Suazo (2009)
		▪ Dulac et al. (2008)
		▪ Chen, Tsui, & Zhong (2008)
		▪ Kickul et al. (2004)
		▪ Lester, Turnley, Bloodgood, & Bolino (2002)
		▪ Coyle-Shapiro & Kessler (2000)
		▪ Turnley & Feldman (1999)
	Organizational identification	▪ Li et al. (2016)
		▪ Epitropaki (2013)
		▪ Zagenczyk et al. (2013)
		▪ Zagenczyk, Gibney, Few, & Scott (2011)
		▪ Restubog, Hornsey, Bordia, & Esposo (2008)
	Organizational trust	▪ Agarwal & Bhargava (2014)
		▪ Lapalme et al. (2011)
		▪ Rigotti (2009)
		▪ Dulac et al. (2008)
		▪ Restubog et al. (2008)
		▪ Deery, Iverson, & Walsh (2006)
	Organizational loyalty	▪ Orvis et al. (2008)
	Organizational cynicism	▪ Bashir & Nasir (2013)
		▪ Johnson & O'Leary-Kelly (2003)
	Felt obligation	▪ Robinson et al. (1994)
		▪ Coyle-Shapiro & Kessler (2002)
	Perceived organizational support	▪ Zagenczyk et al. (2011)
		▪ Kiewitz et al. (2009)

		▪ Suazo (2009)
		▪ Zagenczyk, Gibney, Kiewitz, & Restubog (2009)
	Turnover intention	▪ Chin & Hung (2013)
		▪ Rigotti (2009)
		▪ Suazo (2009)
		▪ Dulac et al. (2008)
		▪ Orvis et al. (2008)
		▪ Suazo, Turnley, & Mai (2005)
		▪ Kickul et al. (2004)
		▪ Lo & Aryee (2003)
	Revenge cognition	▪ Restubog, Zagenczyk, Bordia, Bordia, & Chapman (2015)
		▪ Bordia, Restubog, & Tang (2008)
	Fairness perception	▪ Eckerd, Hill, Boyer, Donohue, & Ward (2013)
Work behaviours	Organizational citizenship behaviours	▪ Conway et al. (2014)
		▪ Shih & Chuang (2013)
		▪ Topa et al. (2009)
		▪ Rosen et al. (2009)
		▪ Suazo (2009)
		▪ Restubog et al. (2008)
		▪ Chen et al. (2008)
		▪ Restubog, Bordia, & Tang (2006)
		▪ Hui et al. (2004)
		▪ Lo & Aryee (2003)
		▪ Coyle-Shapiro (2002)
		▪ Coyle-Shapiro & Kessler (2000)
		▪ Turnley & Feldman (2000)

		• Robinson (1996)
		• Robinson & Morrison (1995)
	Counterproductive workplace behaviours	• Peng, Jien, & Lin (2016)
		• Restubog, Zagenczyk, Bordia, & Tang (2013)
		• Chao, Cheung, & Wu (2011)
		• Jensen, Opland, & Ryan (2010)
		• Chiu & Peng (2008)
		• Bordia et al. (2008)
	Proactive behaviours	• Bal, Chiaburu, & Diaz (2011)
	Innovative behaviours	• Agarwal & Bhargava (2014)
		• Ng et al. (2010)
		• Bal, Chiaburu, & Jansen (2010)
	Decision-making behaviours	• Eckerd et al. (2013)
	Job performance	• Bal et al. (2010)
		• Orvis et al. (2008)
		• Chen et al. (2008)
		• Restubog et al. (2006)
		• Suazo et al., (2005)
		• Kickul et al. (2004)
		• Lester et al. (2002)
		• Robinson (1996)
		• Turnley & Feldman (1999)
Employee well-being	Burnout	• Cantisano, Domínguez, & García (2007)
	Emotional exhaustion	• Gakovic & Tetrick (2003)
	Negative affection	• Cassar & Buttigieg (2015)
		• Bal & Smit (2012)

		▪ Conway et al. (2011) ▪ Bordia, Hobman, Restubog, & Bordia (2010) ▪ Conway & Briner (2002)
	Sick leave	▪ Deery et al. (2006)
	Mental health	▪ Reimann (2016)

Cognitive consequences

Empirical evidence demonstrates that psychological contract breach affect employees'
thoughts at the job and organizational levels. First, at the job level, perceived breach
can diminish employees' evaluations of their jobs, producing reactions such as
reduced job satisfaction (Conway et al., 2011; Orvis et al., 2008; Tekleab & Taylor,
2003) and reduced job engagement (Chambel & Oliveira-Cruz, 2010). Second, at the
organizational level, perceived breach lead to negative thoughts about the organization,
including decreased organizational commitment (Ng et al., 2010; Turnley & Feldman,
1999), decreased organizational identification (Li et al., 2016; Zagenczyk et al., 2011),
decreased organizational trust (Agarwal & Bhargava, 2014; Restubog et al., 2008),
and increased organizational cynicism (Bashir & Nasir, 2013; Johnson & O'Leary-
Kelly, 2003). Multiple scholars have also demonstrated that employees have higher
turnover intentions after perceived breach (Chin & Hung, 2013; Suazo, 2009; Dulac
et al., 2008; Orvis et al., 2008). Furthermore, psychological contract breach also causes
employees to reinterpret their interactions with their organizations. After experiencing
breach, employees tend to have fewer felt obligation (Coyle-Shapiro & Kessler, 2002),
more thoughts of revenge (Restubog et al., 2015), and less perceived organization
support (Suazo, 2009).

Behavioural consequences

When employees perceive that their organizations have failed to provide promised
inducements, how do they react in terms of their work behaviours? The current
literature suggests that the idiom of "an eye for an eye" holds true for employees'
behavioural responses after contract breach, as employees are likely to decrease
positive behaviours and increase negative behaviours. Four sets of behavioural

responses can be triggered after a perceived breach. First, a breach can induce an employee to engage in more counterproductive behaviours (Chiu & Peng, 2008; Jensen et al., 2010). Second, a breach can demotivate an employee, reducing engagement in organizational citizenship behaviours (Chen et al., 2008; Robinson, 1996; Robinson & Morrison, 1995). Third, after experiencing a breach, an employee may engage in fewer proactive behaviours (Bal et al., 2011), specifically innovative behaviours (Agarwal & Bhargava, 2014; Ng et al., 2010). Finally, psychological contract breach also influence employees' effectiveness, as breach have been shown to negatively predict employees' work performance (Bal et al., 2010; Chen et al., 2008; Turnley & Feldman, 1999).

Well-being consequences

Comparatively few researchers have empirically examined how breach impact employees' well-being. To the best of my knowledge, there have been around 15 empirical studies on the association between breach and well-being, starting with Guest and Conway (2002), who included employee well-being as one item in their employee-outcomes measure. Guest and Conway found psychological contract breach to be negatively associated with employee well-being, as measured via a global single-item assessment.

Subsequently, the scope of employee well-being has expanded to include negative affective states, sick leave, burnout, and mental health (Chambel & Oliveira-Cruz, 2010; Conway & Briner, 2002; Deery et al., 2006; Reimann, 2016). In addition to feelings of violation, which are characterized by anger and frustration, the negative emotions that have been linked with psychological contract breach are anxiety, worry,

and depression (Conway & Briner, 2002; Pugh, Skarlicki, & Passell, 2003; Cassar & Buttigieg, 2015). In addition, breach of psychological contracts have been demonstrated to be significantly related to burnout, which is a mental state that involves emotional exhaustion, organizational cynicism, and lack of efficacy (Cantisano et al., 2007; Gakovic & Tetrick, 2003; Johnson & O'Leary-Kelly, 2003). Moreover, psychological contract breach have been found to mediate the effect of organizational justice on negative emotional states (e.g. depression and anxiety; Cassar & Buttigieg, 2015). Last but not least, in a meta-analysis of organizational unfairness and employee health, Robbins et al. (2012) found that psychological contract breach explain more of the variance in burnout and negative emotional states than organizational justice does.

A review of the literature on the consequences of psychological contract breach indicates two important gaps in the discussion of breach-outcome relationships. First, the scope of consequences has been restricted to one level at a time (individual, job, or organizational), with the consequences at the interpersonal level being downplayed. Research has demonstrated that breach have negative impacts on employees' well-being and on their reactions to their jobs (e.g. job satisfaction and job engagement) and to their organizations (e.g. organizational commitment and organizational identification), but little empirical investigation has been conducted on how employees respond to others at work. Researchers have widely discussed how employees treat their organizations when those organizations treat the employees badly (i.e. after breach); however, researchers have seemed to ignore the following question: "If my organization treats me badly, how should I interact with my colleagues?" As an illustration, psychological contract breach were shown to be

consistently and negatively related with citizenship behaviour towards the organization (OCBO; Coyle-Shapiro, Diehl & Chang, 2016), but the evidence linking breach to citizenship behaviour towards individuals (OCBI) was not clear. This suggests that employees may or may not displace their reciprocation, directing their responses away from the sources of harm (i.e the organizations); this highlights the need to investigate when and why breach influence interactions with others within the organization.

Second, given the tremendous support for the conclusion that psychological contract breach negatively affect behavioural consequences, relatively few researchers have explored the behaviour-regulation process that breach may trigger. To the best of my knowledge, the one exception is the conceptual work on the post-violation model that Tomprou, Rousseau, and Hansen (2015) developed. In this post-violation model, Tomprou et al. delineated the aftermath of psychological contract violation from the employees' perspective and provided a potential view of the regulation process that occurs after contract violations. Tomprou et al. suggested that coping choices in response to violations are contingent upon the perceived likelihood of violation resolution, such that a higher likelihood of resolution is associated with problem-focused coping but a lower likelihood is associated with emotion-focused coping, mental disengagement, and behavioural disengagement. This work sheds light on the importance of asking this question: What motivates employees' behaviours after breach? How do employees regulate their behaviours after breach?

In the following section, I introduce, similar to the research on psychological contract formation, an examination of how individual and contextual factors shape breach-outcome relationships.

Psychological Contract Breach: Individual factors

A psychological contract breach is an idiosyncratic perception of a relationship with an organization, and the effects of a breach are contingent on various individual factors. Recently, researchers have suggested that individual factors such as demographics, personality, value, and attribution style can accentuate or attenuate how an employee responds to an experience of contract breach.

The first individual factor that scholars have studied with regard to shaping breach consequences is an employee's age. Psychological contract breach has a stronger negative impact on trust and organizational commitment among younger employees than among older employees (Bal et al., 2008), in part because older employees are more likely to regard their current EORs as the final ones of their careers and thus will hold more positive views towards their organizations (Carstensen et al., 1999) and be more tolerant of psychological contract breach (Hedge, Borman, & Lammlein, 2006).

Second, many scholars have supported the idea that employees whose personalities or values facilitate higher tolerance levels for undesirable events will react less aversely to psychological contract breach; such values include conscientiousness, a constrained-time perspective, a prevention focus, and Machiavellianism. Conscientiousness attenuates the negative relationship between breach and employee cognition (e.g. organizational loyalty, job satisfaction, and turnover intention; Orvis et

al., 2008) because conscientious employees' superior impulse control and effective problem-solving strategies prevent them from reacting more strongly to breach. The constrained-time perspective (i.e. the evaluation that one has few opportunities or time left in one's future; Bal et al., 2013) attenuates the negative effect of breach on work motivation because, when employees possesses such a perspective, they deem their current EOR to be their final ones and thus have higher tolerance for breach. In addition, employees with strong prevention focus (i.e. motivation to minimize losses) also have high tolerance for breach and thus react less negatively in order to avoid ending their current EOR (Bal et al., 2013; De Lange, Bal, Van der Heijden, De Jong, & Schaufeli, 2011). Employees who are high in Machiavellianism—those who believe that the ends justify the means—are very pragmatic and emotionally distant (Christie & Geis, 1970), so they are less likely to reduce their organizational identification when they experience breach (Zagenczyk et al., 2013).

Finally, employees' cognitive attributions regarding breach also play a role in shaping their reactions. Employees with more hostile attribution styles are more likely to engage in counterproductive work behaviours in response to psychological contract breach because those individuals believe that the breach is due to the organization's malice; hence, their motivation to rebalance is strong (Chiu & Peng, 2008). In addition, when employees believe that psychological contract breach result from something beyond the organization's control (i.e. disruption attribution; Morrison & Robinson, 1997), the positive relationship between the breach and the employees' counterproductive work behaviour is attenuated (Chao et al., 2011) because the employees believe that the organization is not fully responsible for the breach. Bal et al. (2011) found that, regarding emotional-regulation strategies such as

cognitive change, "reappraising or reinterpreting situations so as to modify their subjective meaning" (Diefendorff et al., 2008, p. 499) can help employees explain away the negativity of breach and thus mitigate the negative associations between breach and proactive behaviours (e.g. taking charge or knowledge sharing).

Psychological Contract Breach: Contextual factors

Researchers have suggested that contextual factors such as organizational policy, organizational culture, and quality of EOR can shape how employees respond to contract breach. First, employees' awareness of organizational policy regarding employee accountability, employee monitoring, and preventative theft policies can moderate the relationship between psychological contract breach and counterproductive workplace behaviours. For example, high awareness of preventative theft policies reduces the likelihood that employees will engage in production deviance in response to contract breach (Jensen et al., 2010). Likewise, employees who endorse high power-distance are less likely to engage in counterproductive workplace behaviours in response to psychological contract breach (Chao et al., 2011), which supports the importance of cultural values (albeit at the individual level).

Furthermore, indicators of EOR quality, such as perceived organizational support and leader-member exchange, can shape an employee's OCB after experiencing a breach. The negative relationship between psychological contract breach and OCB is more intense for employees who have higher leader-member exchange (Katrinli, Atabay, Gunay, & Cangarli, 2011; Restubog et al., 2010) or higher perceived organizational support (Suazo & Stone-Romero, 2011). The explanation provided is that breach

triggers an inconsistency with a high quality EOR which prompts to more negative reactions compare to breach in a low quality relationship where there is consistency (Bal et al., 2010; Robinson & Rousseau, 1994).

Summary

To sum up, investigating psychological contract breach is valuable because they are associated with a wide range of employee outcomes. The breach experience seems to make employees think and act negatively in an organizational context, and it can even be detrimental to employees' well-being. In addition, researchers have also demonstrated that individual and contextual factors can come into play (as summarized in Figure 2.4). Finally, I present two additional questions for further examination in this part of review. First, when and why does breach influence interactions with others in the organization? Second, how do employees regulate their behaviours after a breach?

If a perceived breach carries negative consequences for employees, why does such an effect occur?

2.3.3 Why does psychological contract breach matter?

Social exchange theory (Blau, 1964) and affective-events theory (Weiss & Cropanzano, 1996) have served as the two dominant theoretical foundations for examinations of the breach-outcome relationship. Proponents of social exchange theory and affective-events theory have argued that breach influence employees' felt obligation and of violation, respectively, which in turn influence their contributions at work. Based on the literature, I examine how employees' felt obligation and

psychological contract violation influence the relationship between breach and employee outcomes.

Felt obligation

According social exchange theory, reciprocity is a major element in the interaction between employees and organizations. In the early conceptualization of social exchange, scholars focused on the exchange of economic goods and symbols (Homans, 1958); Blau (1964) was the first to distinguish social exchange from economic exchange, thus providing a solid foundation to explain human social behaviour. Social exchange is a reciprocal process. Both parties in the social exchange bestow benefits upon each other based on the mutual obligation that each will benefit from the other. A psychological contract is an employee's belief concerning the reciprocal obligation within the EOR (Rousseau, 1989); based on the idea of reciprocity, a broken promise from an organization can lead an employee to have fewer felt obligations to the organization (Rousseau, 1989), such that the employee contributes less to the organization by decreasing positive work cognitions and behaviours.

In extant empirical studies, the rebalancing of felt obligation has been widely viewed as the primary explanation for how psychological contract breach influence employees' thoughts and behaviours. For example, Chen et al. (2008) mentioned that employees seek fair and balanced relationships with their organizations, which can explain why the occurrence of breach affects employees' work-related thoughts. Following perceived breach, employees are likely to believe that their organizations are displaying a lack of caring and concern, so the employees will rebalance by exhibiting less concern and less loyalty to their organization, perhaps in the form of reduced

organizational commitment. These empirical findings demonstrate the negative relationship between breach and organizational commitment (Chen et al., 2008). In terms of behavioural consequences, Restubog et al. (2007) suggested that, when they are treated well, employees feel obligated to perform positive behaviours towards their organizations and towards others at work. Thus, when employees perceive a breach, they perform only the minimum job requirements and do not engage in additional positive behaviours. Empirical evidence is supportive as breach is negatively associated with OCB (Coyle-Shapiro, 2002; Hui et al., 2004; Restubog et al., 2006).

Interestingly, although researchers have widely argued that lower felt obligation towards an organization is the linchpin of the relationship between breach and outcomes (Conway & Briner, 2009), this explanatory mechanism has rarely been empirically captured (i.e. Chen et al., 2008; Restubog et al., 2007). A reduction in felt obligation has been articulated as an explanation; however, most scholars have not empirically captured employees' felt obligation. Therefore, the role of felt obligation is assumed rather than empirically tested.

Psychological contract violation

The other explanation of the breach-outcome relationship is psychological contract violation. Proponents of affective-event theory have suggested that work events cause affective reactions, which in turn influence employees' job attitudes and performance (Weiss & Cropanzano, 1996). Psychological contract breach is conceptualized as a negative work event that leads to negative emotional reactions (as captured in the idea of psychological contract violation), leading to negative attitudinal and behavioural outcomes.

Zhao et al. (2007), in a meta-analysis, found that psychological contract breach initially provokes affective reactions, leading to cognitive reactions (i.e. job satisfaction, turnover intentions, and organizational commitment) and behavioural consequences (OCB and in-role performance). Zhao et al.'s meta-analysis showed that breach strongly predicts cognitive responses, and this relationship is mediated by affective responses (such as psychological contract violation). Subsequently, Restubog et al. (2013) applied affective-event theory to argue that psychological contract breach leads to counterproductive workplace behaviours. Restubog et al. postulated that feelings of violation following a breach can translate into negative behaviour so as to "even the score", and their study of supervisor-employee dyads supports this.

It is clear from the above that felt obligation and a feeling of violation are widely accepted explanations for how perceptions of breach shape employees' thoughts and behaviours. However, three issues regarding how and why breach matters have been somewhat overlooked. First, the interplay between the two dominant mechanisms is unknown. Researchers in empirical studies have tended to focus on single mechanisms (e.g., either felt obligation or feelings of violation) and have not included both mechanisms so that the relationship between the two can be examined. For instance, if felt obligation is the basis for the influence of breach on employees' OCBs, can feelings of violation offer a unique explanation in this relationship? In addition, is it possible for either mechanism to trigger the other mechanism, such that feelings of violation can actually trigger reduced felt obligation?

Second, little research has been done to uncover potential explanatory mechanisms for the influence of breach on employee well-being. Cantisano et al. (2007) argued that the way employees engage in social comparisons after a breach experience can influence their well-being, such that selecting a downward comparison brings a positive perception of the self (relative to peers) and an increased subjective well-being. On the other hand, Reimann (2016) drew on effort-reward imbalance theory (Siegrist, 1996) to suggest that breach is a perceived imbalance in the organizational relationship and that it serves as a psychosocial stressor that leads to stress reactions and deterioration in the employees' mental health.

Third, there is insufficient knowledge about employees' behavioural motivations after experiencing psychological contract breach. Breach produces stronger effects on work-related thoughts than on work-related behaviours (Conway & Briner, 2009), which highlights the importance of exploring alternative mechanisms for employee behaviours after breach. Motivational psychologists have suggested that there are three components of human motives: thoughts, emotions, and needs (Reeve, 2009). After a perceived breach, employees' behaviours are motivated by felt obligation and violation; they give little consideration to psychological needs. In other words, the extant research can only provide inferences into how employees think (e.g. *I want revenge*) and feel (e.g. *I feel angry*) and not into what they need after breach experiences. Therefore, people often fail to delineate the holistic motivational profile of employees' breach experiences.

A motivational psychology perspective highlights the role that psychological needs play in employee behaviour, an issue that is underdeveloped in the psychological contract research (see Figure 2.5 for a conceptual demonstration). Reciprocation is "the process of fulfilling a contractual relationship in which both parties seek continuously to meet their respective needs" (Levinson et al., 1962, p. 38). Conway and Briner (2009) mentioned that psychological needs are motivators for reciprocation. However, the role that needs play has been surprisingly downplayed in the psychological-contract literature (Meckler et al., 2003). Herein lies the starting point of this thesis, which adopts a thwarted-psychological-need perspective to examine the motivational mechanism in the relationship between psychological contract breach and employee behaviours. The focus on thwarted needs offers an alternative explanation for the importance of psychological contract breach; it also extends the impact of breach from thoughts and emotions to psychological needs.

Figure 2.5. A Conceptual Demonstration of The Role That Needs Play in Employee Behaviours after A Breach.
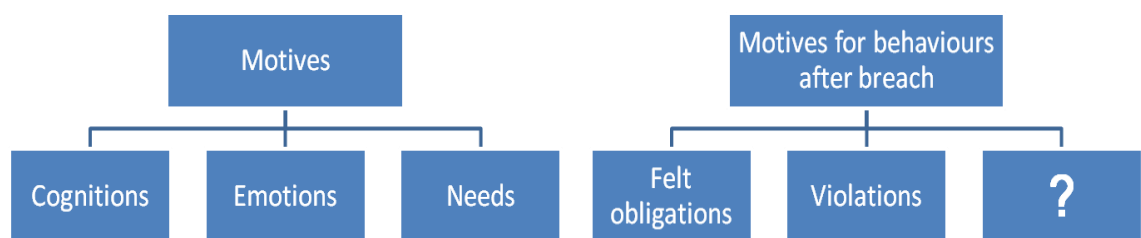
To achieve this aim, in the following section, I briefly introduce the background literature on psychological needs. Specifically, I focus on the psychological need to

control, which Shore and Tetrick (1994) proposed was the core psychological need in psychological contracts. To facilitate the discussion of how psychological needs can be integrated with psychological contracts, I will review how need to control has been used in various research domains.

2.4 Psychological needs and the thwarted need to control

2.4.1 Psychological needs

The conceptualization of psychological needs dates back to Murray's (1938) personality theory. In his personality theory, Murray (1951) argued that the exploration of superordinate directionalities in psychic, linguistic, and physiological activities helps explain human behaviours. In other words, Murray valued individuals' motivational processes, which represent how people seek, pursue, desire, and hope to do something. With this thought, Murray believed that individuals should have a vast psychological system with sufficient constructs to reflect the complexity of human motivation. Therefore, Murray proposed a conceptualization of needs and a classification of needs using empirical definitions (Hall, Lindzey, & Campbell, 1998).

According to Murray (1938), needs are the drivers that offer directionalities that encompassing perceptions, subjective interpretations, intentions, and behaviours in unsatisfactory situations. Internal physiology can trigger needs, but the usual trigger is external, effective press, which is defined as the subjective or objective features of everything in the external environment that can facilitate or impede individuals' existing directionalities (Hall et al., 1998). Therefore, needs cause individuals to seek or avoid press and to react when they encounter it, such as by generating incorrect and delusional perceptions. Needs are accompanied by corresponding emotions, and needs

can be weak or strong, temporary or enduring. Individuals experience tension when their needs are aroused, and this tension is usually maintained until explicit behaviours are performed to change the initial environment and create the end state (a state of satisfaction or tension relief; Murray, 1938). Murray described five ways of inferring a person's needs: (a) observe the person's typical end-state of behaviours; (b) observe that person's pattern of behaviours; (c) avoid effective press or select it for subsequent processing; (d) express emotions and feelings; and, finally, (e) express the influence of effective press (Murray, 1938). Murray further articulated 20 human needs, such as those for exhibition, affiliation, understanding, and defendance (see Table 2.2 for detailed definitions), as well as 24 presses, including those of aggression, deference, nurturing, and rejection (Murray, 1938; Hall et al., 1998).

Table 2.2. Needs in Murray's and Maslow's Needs Theories

Theorist	Needs	Contents
Murray (1938)	Need for exhibition	To purposefully cultivate an impression; to be seen or heard; to excite, entertain, shock, or attract others
	Need for affiliation	To establish friendly relationships; to participate in groups or organizations; to feel a strong attachment to or affection for another person
	Need for understanding	To ask or answer questions; to be inclined towards theory and logic; to enjoy analysis and inference
	Need for defendance	To defend oneself against attacks or blame; to conceal or correct a misconduct or failure
Maslow (1954)	Physiological needs	To seek food, water, warmth, sex, etc.
	Safety needs	To seek personal safety, stability of resources, security of employment, etc.
	Social needs	To seek friendship; group, family, or intimate relationships; etc.
	Esteem needs	To seek self-esteem, mastery, prestige, achievement, status, etc.
	Self-actualization needs	To seek personal growth, fulfilment of personal potential, spontaneity, etc.

Unlike Murray's (1938) attempt to comprehensively explore the vast needs system of individual and effective press in the environment, Maslow (1954), in his needs theory, proposed that human needs can converge in five parts. According to Maslow, the five needs that human beings instinctively pursue are physiological, safety-based, social, esteem-based, and self-actualization-based needs (as listed in Table 2.2 above). Maslow (1970) suggested that these needs are humans' innate drives to live and grow.

When needs are generated, motivations are generated accordingly, and thoughts and behaviours follow. Satisfied needs lead to integrated and healthy human development, and threatened or thwarted needs induce affective or personality malfunctions. For instance, thwarted social needs can cause paranoid thoughts regarding social interactions, and thwarted esteem needs can lead to internalized negative self-concepts.

In Murray's (1938) aforementioned needs theory, each psychological need differed in terms of magnitude depending on the focal person and on the presented effective press. Murray did not specify an order among psychological needs, but Maslow (1954) strongly emphasized a hierarchy, stating that these needs are dynamic and complex, with physiological needs at the bottom and self-actualization at the top. Only after the needs at the lower levels are satisfied will individuals seek to satisfy the needs at the higher levels. As an illustration, social needs become important only after physiological and safety needs are met. However, subsequent researchers have found the hierarchy that Maslow (1954) proposed questionable. Conceptual critiques and empirical longitudinal evidence have both indicated that individuals do not exclusively pursue needs in the proposed order (Neher, 1991; Wahba & Bridwell, 1976). Humans sometimes seek to fulfil social or esteem needs even when their physiological or safety needs have not been properly satisfied.

The early needs theories from Murray (1938) and Maslow (1954) have provided an important basis for contemporary psychological need theories. First, psychological needs can generate human motivations. Second, psychological needs can influence human thoughts and emotions. Third, when psychological needs are satisfied, humans experience growth and health. On the contrary, when psychological needs are thwarted,

humans exhibit maladaptive functions. Based on these key points, contemporary psychological need researchers have expanded the range of psychological needs to include the need to control (Burger & Cooper, 1979), the need for self-esteem (Greenberg, Pyszczynski, & Solomon, 1986), the need to belong (Baumeister, & Leary, 1995), and the need for cognition (Cacioppo, Petty, Feinstein, & Jarvis, 1996), thus demonstrating that psychological needs have a wide range of influences on individuals. To illustrate, the need to control motivates individuals to manage the events in their lives and to influence the people around them (Burger & Cooper, 1979), and researchers have empirically found that it is associated with academic performance (Burger, 1992), health behaviours (Woodward & Wallston, 1987), work behaviours (Ashford & Black, 1996), and criminal behaviours (Craig & Piquero, 2016). The need for self-esteem is the desire to maintain a positive self-evaluation (Greenberg et al., 1986), and its satisfaction facilitates individuals' positive affect and effective coping (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). The need to belong is a human motivation to form and maintain close interpersonal bonds that include affective concern (Baumeister, 1995), and a thwarted need to belong increases aggressiveness in subsequent interpersonal behaviours (Twenge, Baumeister, Tice, & Strucke, 2001). The need for cognition refers to the psychological need to "engage in and enjoy effortful cognitive endeavours" (Cacioppo et al., 1996), and it is the primary motivator behind learning behaviours during schooling (Luong et al., 2017) and behind employees' innovative behaviours (Wu, Parker, & De Jong, 2014).

To reiterate, the aim of this thesis is to fill the gaps in the research on behavioural motives related to psychological contract breach by exploring the role that psychological needs play. The brief review of the psychological need research above

indicates the importance of psychological needs in individuals' behaviours, but it is not clear how important they are in psychological contract breach. This thesis sets out to address this gap and to pose an important question: Which psychological needs are threatened when psychological contracts are breached? As Shore and Tetrick (1994) noted, psychological contracts provide the expected contingency by specifying the "order and continuity in a complex employment relationship, allowing for predictability and control" (p. 95). Specifically, there are three core functions of psychological contracts (Shore & Tetrick, 1994): reducing the uncertainty of employment; developing employees' beliefs that their actions influence their future rewards, thus increasing their behavioural self-monitoring; and making the employees aware their influence in the employment. Therefore, one of the crucial functions of psychological contracts is to offer employees a sense of control in their relationships with their employers. In this way, employees can gain feelings of control as soon as their psychological contracts are formed because they know the contingencies of the employment relationship, the potential consequences of their behaviours, and the influence they may have on the organization. As such, when psychological contracts are breached, employees are very likely to experience a thwarted need to control in their EOR. In the following sections, I review the literature on the psychological need to control, including the basic conceptualization of this need (Section 2.4.2), the general implications of thwarting this need (Section 2.4.3), and the ways in which the thwarting of this need has been studied in the organizational behaviour research in Section 2.4.4.

2.4.2 Need to control

I will briefly explain the definition of the need to control, the difference between the need to control and the need for autonomy, and why the need to control is important. Well-documented research has shown that the need to control is a fundamental psychological need of human beings (Skinner, 1996). The need to control is the need to feel one could have influence over a situation, and it is "the expectation of having the power to participate in making decisions in order to obtain desirable consequences" (Rodin, 1990, p. 4). The need to control can be understood as the need to perceive contingencies between one's action and outcomes (Glass & Carver, 1980). Individuals need to be in control because they "innately desire to engage in effective interactions with the environment … and experience themselves as producing desired effects and preventing undesired effects" (Skinner, 1996, p. 557). The experience of need to control is subjective rather than objective. Given exactly the same condition that offers the same degree of objective control, the subjective perception of control can vary across people. One pivotal consensus in the research on objective control and subjective control is that objective loss or gain of control only matters for the person if he or she recognizes it (Langer, 1979). Therefore, a person does not necessarily experience a thwarted need to control in situations in which an objective threat to control is present, unless he or she subjectively believes that his or her need to control is being thwarted.

The need to control can be differentiated from the need for autonomy. Self-determination theory (Deci & Ryan, 1985) is a widely discussed psychological needs theory arguing that humans have a need for autonomy, to act in harmony with one's free will. Skinner (1996) suggested that control is distinct from autonomy because the

former refers to whether one can influence the outcomes effectively, and the latter emphasizes whether the origin of one's behaviours is one's own true self. As Deci & Ryan (1985) stated, "control refers to there being a contingency between one's behaviour and the outcomes one receive, whereas self-determination refers to the experience of freedom in initiating one's behaviour" (p. 31). Therefore, these two needs are not interchangeable as they refer to distinct concerns.

Is it important to investigate individuals' need to control? The satisfaction of need to control produces joy and interest, maintains adaptive psychological functioning, and supports the general well-being (Leotti, Iyengar, & Ochsner, 2010; Skinner, 1996). On the contrary, when the need to control is threatened (i.e. thwarted), the individual is vulnerable to the feeling of helplessness, the breakdown of the motivational regulation and the deterioration of physiological and psychological well-being (Skinner, 2016). The importance of the need to control and the thwarted need to control has not only implications for the individual but also a powerful effect on behaviours in the context of relationships (Burger, 1990; Follingstad et al., 2002; Skinner, 1996; Warburton, Williams, & Cairns, 2006). The detailed implications of the thwarted need to control will be discussed in next section.

The thwarted need to control is a subjective experience about the potential inability to fulfil the need to produce effective interactions with the environment based on perceived contingency. Having offered a brief overview about the nature of need to control, in the next section, I introduce what the impacts are when individual experience thwarted need to control.

2.4.3 Consequences of thwarted need to control

Does it matter when one's need to control is thwarted? The extant research from cognitive and social psychology demonstrated that thwarted need to control has important implications for individuals. Skinner (2016) summarized that the state of thwarted need to control is influential for individuals in at least four ways: motivational effects, affective effects, cognitive effects and neurophysiological effects. I will discuss each in turn.

First, individuals suffering from thwarted need to control are prone to withdraw or escape from the situation. If the individual stays in the same situation, thwarted need to control would shape their subsequent motivational tendency into a more passive and disengaging mode (Skinner, 2016). As an illustration, Sherrod and Downs (1974) examined the relationship between thwarted need to control and altruistic motivation. They used an experimental design to manipulate the state of thwarted need to control by giving participants the chance to turn off auditory noise while performing a proofreading task. After completing the task, the participants were given an opportunity to offer help to the experimenter with another experiment. The results showed that participants experiencing thwarted need to control were less motivated to engage in altruistic behaviours such that they spent less time on the additional experiment, as thwarted need to control leads to the development of feelings of helplessness with regard to influencing others.

Second, under the state of thwarted need to control, individuals experience negative affect, including disappointment, helplessness, fear, embarrassment, frustration and sadness (Skinner, 2016). Ric and Scharnitzky (2003) conducted an experiment and

found that participants in the thwarted-control group (manipulated via non-contingent feedback to a time-limited cognitive task) reported significantly higher negative emotion, including anxiety, sadness, fatigue and depression. In clinical psychology, thwarted need to control has also been argued as the psychological etiologic factor for affective disorders, such as major depression disorders (Seligman, 1975), anxiety disorders (Chorpita, Brown, & Barlow, 1998) and post-traumatic stress disorders (Foa, Zinbarg, & Rothbaum, 1992) because thwarted need to control can lead to negative cognitive styles, such as attributing negative events in life to internal, stable and global causes, which, in turn, trigger negative effects.

Third, in terms of thinking, thwarted need to control has been argued to shape individuals' information processing, such as contingency detection and hypothesis generation (Skinner, 2016). Specifically, thwarted need to control has been empirically demonstrated to influence the illusory pattern perception (Whitson & Galinsky, 2008), attribution process (Pittman & Pittman, 1980), information construal (Pittman & D'Agostino, 1989) and analytical thinking (Zhao, He, Yang, Lao, & Baumeister, 2012). In brief, the research concerning thwarted need to control and human cognitive function generally suggests that individuals would engage in cognitive activities that can provide a sense of control following the state of thwarted need to control, such that they tend to pay attention to details more and identify associations among information easily (even when there was no association). For instance, in Whitson and Galinsky's (2008) experiment, they presented pictures with ambiguous patterns to the participants and ask them to identify whether there was any image or not and, if yes, what it is. A series experiments offer strong support that when individuals experience thwarted need to control, they increase pattern perception by

reporting that they identify an object out of the ambiguous pictures, because "pattern perception is a compensatory mechanism designed to restore feelings of control" (Whitson & Galinsky, 2008, p. 115).

Finally, the need to control has long been regarded as a key to physical and psychological well-being (Cohen, Evans, Krantz, & Stokols, 1986). Scholars have proposed that the state of thwarted need to control triggers a neurophysiological reaction in areas such as the hypothalamic-pituitary-adrenal axis, and that this reaction, in turn, influences a person's stress hormones, blood pressure, immune system, and glycaemic status (Macrodimitris, & Endler, 2001; Skinner, 2016; Wrosch, Schulz, Miller, Lupien, & Dunne, 2007). For instance, focusing on patients with type 2 diabetes, Gonzalez, Shreck, Psaros and Safren (2015) demonstrated that patients' perceived control over the disease is associated with their glycaemic control (indicated by haemoglobin A1c, one type of haemoglobin that bonds with glucose, also referred to as glycosylated haemoglobin).

In sum, the need to control is one prominent psychological need of human beings. When the need to control is threatened, it triggers various reactions in terms of the motivation, affection, cognition and well-being. That is, a person encountering thwarted need to control becomes passive, feels helplessness, looks for associated information and experiences a neurophysiological stress reaction. With the review above, the importance of thwarted need to control is evident. Before I discuss how thwarted need to control can be integrated with psychological contract breach, I will discuss the research on thwarted need to control in the organizational context to

introduce ways in which thwarted need to control can specifically be relevant to employees.

2.4.4 Thwarted need to control in organizational context

To review the role of the thwarted need to control in the organizational context, I first present how need to control is integrated in the theory of organizational justice, and then, I introduce the accumulated empirical work between workplace ostracism and the thwarted need to control. The review in this section will help to gauge how need to control and the thwarted need to control may be relevant in employees' psychological contract breach.

Organizational justice

The role of the need to control in the organizational justice literature focuses on how it can explain why we need to care about justice perceptions. The need to control refers to a person's desire to influence and predict the interaction with the environment, and Tyler (1987) suggested that it is this innate tendency to seek control explains why justice is valued. The more justice a system has, the more people can accurately expect and manage how the rewards and punishments will be allocated.

Based on Williams' thwarted-need model (1997), Cropanzano, Byrne, Bobocel, and Rupp (2001) developed a multiple-needs model of justice and posit that employees' need to control can explain why injustice matters. In their view, organizational justice facilitates the foreseeable pattern at work, which enables employees to pursue satisfaction of the need to control. When the organization is perceived to be unjust, employees can neither predict the course of resources allocation nor control what they

should or should not do in the organization. Injustice imposes a direct threat to the employees' innate psychological need, leading to the state of thwarted need to control for employees (Cropanzano, Byrne, Bobocel, & Rupp, 2001).

The theoretical work of organizational justice and the need to control offers an exemplary platform to link psychological contract breach with the need to control. The need to control may explain why psychological contracts are valued and why breach is unfavourable. The less breach occurs in the psychological contract, the more employees can accurately expect and manage how the relationship with the organization develops. Moreover, psychological contracts enable employees to pursue the satisfaction of need to control. When psychological contracts are perceived to be breached, employees can neither predict the course of interaction with the organization nor control what they should or should not do in the organization. Breach imposes a direct threat to the employees' innate psychological need, leading to the state of thwarted need to control for employees.

Workplace ostracism

Workplace ostracism, or being "invisible at work" (Robinson, O'Reilly, & Wang, 2013), has become an emerging research topic in organizations. Ferris, Brown, Berry and Lian (2008) defined ostracism as the perception of being excluded or ignored by others. Williams (1997) proposed that the experience of ostracism imposes a threat to an individual's fundamental psychological needs, and the need to control is one of the psychological needs threatened. As researchers in this area have elaborated, ostracism refers to the lack of responsiveness from people around even when we try to seek attention and inclusion (Jamieson, Harkins, & Williams, 2010), so it "takes away any

sense of control that we think we have in our social interaction with the others" (Beest & Williams, 2006, p. 918). Meta-analysis also revealed that ostracism has statistically large and negative effects on an individual's state of the need to control (Gerber & Wheeler, 2009).

Many ostracism studies have utilizing the Cyberball experiment (Williams, Cheung, & Choi, 2000), a triadic online ball toss game, to demonstrate the impact of ostracism on the thwarted need to control. In the computerized Cyberball experiment, participants were told that they were playing the ball game with two other real persons who were also online in another place. Ostracism was manipulated by how frequently the participant could catch and throw the ball in the triadic game. In total of 20 throws, participants in the inclusion condition receives one third of the throws, but participants in the ostracized condition will receive only one throw from each of the two players in the beginning. Using the Cyberball paradigm, Jamieson et al. (2010) found that ostracized participants experienced a significantly higher thwarted need to control compared with the included participants.

Other studies have revealed that the thwarted need to control is a quite robust reaction to ostracism. Gonsalkorale and Williams (2007) tackled the question whether there will be differential effect due to the target identity of the ostraciser, that is, do we feel differently when we are ostracized by in-group members or out-group individuals? In their study in Australia, in addition to the ostracism and inclusion conditions, they also manipulate the identity the two other players into three conditions: in-group, rival out-group and despised out-group, based on the participants' preferences in terms of Australian political parties. Their results showed that, in terms of thwarted need to

control, no difference among the identity conditions existed. That is, ostracism is aversive for us, no matter who we feel ignored or excluded by. In Zadro, Williams and Richardson's (2004) Cyberball experiment, they further manipulated the source of the two other players. Half of the participants were informed that their two partners were two real players, and the other half were informed that their partners were computerized programs. Their results showed no difference between the real-partner condition and the computerized-partner condition in terms of thwarted need to control, suggesting that the perception of being ostracized induces a deleterious effect related to the need to control regardless of whether the source of the perception is a human. Finally, Beest and Williams (2006) investigated whether the aversive response due to ostracism can somehow be eliminated with an economic reward. They created experimental conditions where ostracism leads to monetary gain and inclusion induces a loss of money, demonstrating that ostracism still threatens individuals' psychological needs even when it is economically rewarding.

If the thwarted need to control is such a robust reaction following workplace ostracism, what subsequent consequences follow? Robinson et al. (2013) proposed a conceptual model for explaining that employees will behave differently after ostracism has thwarted their psychological needs. Specifically, they believe that the thwarted need to control may lead to deviant or antisocial behavioural reactions at work, as employees can restore their sense of control when engaging in aggressive behaviours, at least in the short term. Warburton, Williams and Cairns's (2006) study echoed the potential role of thwarted need to control as a pathway from ostracism to aggression. They designed a two-stage experiment, where ostracism or inclusion condition was manipulated at the first stage, and then, the diminished or restored control condition

was manipulated by giving participants control over the unpleasant sounds played in their ear phones. The aggressiveness was later assessed by the amount of hot sauce the participants assigned to a stranger who dislikes spicy taste. The results demonstrated that after ostracized experiences, if participants have their control restored, their aggressiveness is comparable to those participants who were included in the first stage (both with and without control in second stage), whereas those who experienced diminished control after ostracism showed significantly higher aggressiveness.

Empirical evidence of workplace ostracism demonstrates that the thwarted need to control is a robust reaction in negative interpersonal events. Moreover, thwarted need to control also has the potential to explain how a negative interpersonal relationship triggers negative behavioural reactions. Although the accumulated workplace ostracism studies mainly rely on the Cyberball experiment paradigm instead of real field examination, they hint that the thwarted need to control may be the immediate consequence of negative events such as psychological contract breach, or even act as a reason for their negative behavioural reactions later on.

2.4.5 Summary of psychological needs and the thwarted need to control

The thwarted need to control is the perceived situational inability to fulfil the need to sustain effective contingency with the environment, and it has diverse impacts on individuals in terms of motivation, affection, cognition and well-being. In current organizational behaviour literature, thwarted need to control is the fundamental reason for why injustice is an aversive organizational condition. The research of workplace ostracism demonstrates that thwarted need to control is a robust reaction following negative events in relationships, and it serves as an explanation for negative

behavioural consequences. This research hints at the potential association between breach and need to control, such that the need to control is a theoretical reason for explaining why breach is aversive, and it can conceptually be viewed as the reaction of breach and an explanation for responses to breach.

Two limitations emerged in the literature of the thwarted need to control. First, the potential influence of individual differences in thwarted need to control is underplayed. Researchers have explored the aftermath of thwarted need to control but have ignored whether the influence varies across individuals. Is thwarted need to control equally important to individuals with different dispositions? Taking workplace ostracism as an illustration, do all employees have same reactions after they experience thwarted need to control due to ostracism? Robinson et al.'s (2013) conceptual model highlighted that thwarted psychological needs may be attenuated or strengthened after an experience of ostracism. However, this idea is under-examined in the literature.

Second, the impact of thwarted need to control for employees in the organizational context is clearly restricted. The way employees regulate their sense of control is under developed because the lack of exploration of thwarted need to control in management research. To the best of my knowledge, the aforementioned experiment from Warburton et al. (2006) may be the only empirical examination on how thwarted need to control matters for employee behaviours. They demonstrated that the restored sense of control can mitigate the impact of ostracism on aggressive behaviours. However, their experimental design did not answer the question of employee reactions in the real field. More research on employees' experience of thwarted need to control and how

the thwarted need to control shapes their behaviour in organization should be conducted to address this question.

Having reviewed the literature of psychological contract breach as well as the thwarted need to control, I shall now present why and how these two topics should be integrated.

2.5 Towards the thwarted-control perspective of psychological contract breach

In the present thesis, it is argued that by integrating psychological contract breach and employees' thwarted need to control, additional insights into the experience of breach can be uncovered. The core function of psychological contract is to offer a sense of control in their relationships with their employer (Shore & Tetrick, 1994). When a psychological contract is breached, employees are more likely to experience a thwarted need to control in the organization. Therefore, the main research focus in this thesis is to examine whether psychological contract breach triggers employees' thwarted need to control, which, in turn, serves as an alternative mechanism for understanding the influence of psychological contract breach. In addition, as aforementioned, individual differences have been overlooked in the thwarted-control literature. Thus, the aim of this thesis is also to reveal how individual dispositions may shape the need mechanism between breach and employee behaviours. Figure 2.6 presents the overarching research model of this thesis.

Figure 2.6. The Overarching Research Model of This Thesis
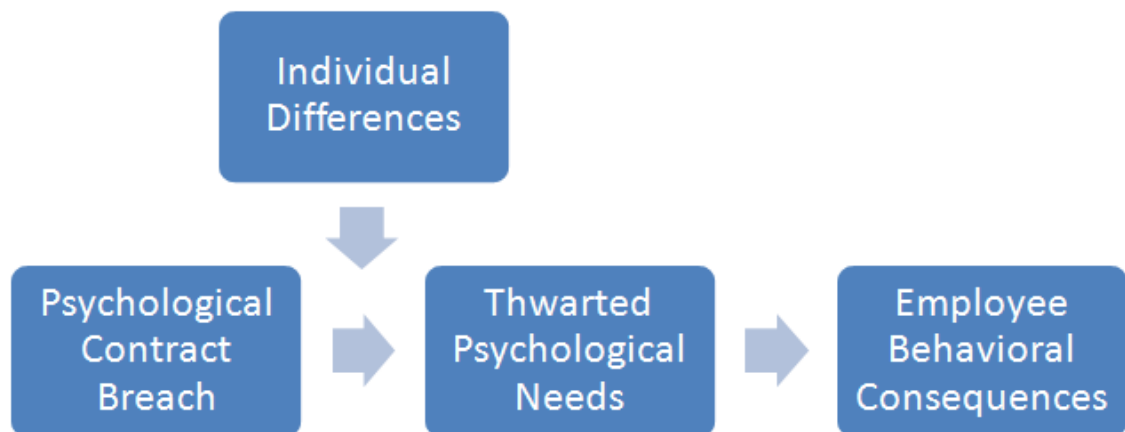
With the research aim being to link psychological contract breach with thwarted need to control, this thesis will advance psychological contract research in the following ways. First, through adopting a thwarted-control perspective, this thesis offers a psychological needs perspective for explaining why breach matters, and it thus addresses calls for the expansion of alternative mechanisms underpinning breach other than a social exchange explanation (Conway & Briner, 2009) or an affective pathway. With its focus on thwarted need to control, this thesis can extend the impact of psychological contract breach from the lack of inducement or the trigger of emotion to the threat to regulatory functioning. This may help to further explain why breach from the organization would influence the interaction between employees and parties not responsible for the breach (i.e. other individuals in the organization). Breach imposes a crisis of the employee's interpersonal interaction because the employee is actually undergoing regulatory impairment.

Going beyond this, this thesis expands a novel area in the study of the thwarted need to control. It integrates the thwarted need to control into the domain of psychological contract and demonstrates the importance of employees' sense of control in EOR.

Furthermore, given that the exploration of individual difference has been vigorous in the breach-outcome relationship, it offers a wonderful foundation for examining whether the thwarted-control mechanism is robust across individuals or not. To my knowledge, this is the first study to empirically apply the thwarted need to control to the context of psychological contract breach, as well as to tackle whether thwarted need to control can be an effective linchpin between breach and employee behaviours.

Consequently, to address the overarching aim in this thesis, I present three major research questions that guide this thesis:

Question 1: What is the role of need to control after employees perceive psychological contract breach?

- How does the need to control come into play after psychological contract breach?
- Does the state of thwarted need to control operate as a mechanism for explaining why psychological contract breach influences employee behaviours?

Question 2: What is the role of individual differences in the process from psychological contract breach to employee behaviours via the thwarted-control mechanism?

Question 3: Is the thwarted-control mechanism linking breach and employee behaviours unique compared with the established theoretical underpinnings (e.g. social exchange and affective-event theories)?

- Does the thwarted-control mechanism provide a unique explanation for the effect of psychological contract breach on employee behaviours?

- Can the thwarted-control mechanism explain why psychological contract breach reduces felt obligation and triggers feelings of violation for employees?

2.6 Conclusion

The present chapter provides two main theoretical lenses for this thesis: psychological contract breach and the thwarted need to control. Existing literature of psychological contract breach has limited its focus to social exchange and affective pathways in understanding its consequences. The perspective of the thwarted need to control can expand the underpinning mechanism of breach to spotlight the role of employee needs. In moving towards an empirical examination of proposed research questions, the next chapter will introduce the methodological plan of this thesis.

Chapter 3:

Research Design & Methodology

3.1 Chapter overview

This thesis adopts a mixed method design to explore the role of thwarted need to control in psychological contracts using three diverse samples. This chapter will describe the research design and methodologies used in the three studies in this thesis. The rationale behind each study will be provided, including the choice of research method, sources of participants and analytical strategies. Having said that, it should be noted that whilst this chapter intended to offer an overarching overview and rationale for the research conducted, more in-depth details can be found later in each of the empirical chapters.

3.2 Overview of research design

The research questions in this thesis has set out to examine whether the proposed theory-driven models consisting of a number of hypotheses receive empirical support, so quantitative methods are deemed appropriate. With quantitative studies, this thesis will involve testing the proposed theoretical models and hypotheses, examine the generalizability of the findings and provide empirical results for comparisons or replications with studies based on a similar methodology. Therefore, the philosophical stance this thesis follows a positivism approach, which connects the assumptions of ontology, epistemology and methodology adopted throughout. Specifically, this thesis regards knowledge as the true objects that can be observed in the world (Symon, Cassell, & Dickson, 2000), and its aim is to study "the nature of relationships among the elements constituting that structure" (Smircich, 1980, p. 493). Consequently, this thesis involves constructing knowledge by building and testing theoretical models and hypotheses with quantitative measures, examining whether the statistical associations reported in the real world can fit the hypothetical relationship in research model

(Brewerton & Millward, 2001). In the positivist approach, the viewpoint of human nature is that the human is a respondent to the external stimuli in the environment, and human behaviours are predictable in a lawful manner (Smircich, 1980). This viewpoint of human nature corresponds well to the questions in this thesis, such that the major research aim was to explore whether the "lawful manner" of thwarted control triggered by psychological contract breach can explain employee behaviours. Through the adoption of a positivism stance, three studies were designed to examine the empirical relationships between proposed variables and to infer the potential causal directions based on quantitative procedures (Bryman, 1984), such as experiments and surveys.

Standing on a positivist approach, overall, this thesis adopted a mixed-method design, combining one experimental study (Study 1) and two survey studies (Studies 2 and 3) to examine the proposed model of thwarted need to control in psychological contracts. Grimes and Rood (1995) suggested that the selection of methodology is always a trade-off question, as no ultimately best paradigm exists in a given research question. The use of multiple paradigms can contribute to a research question with complementary findings, compromising the limitation of single paradigms. Therefore, this thesis used a mix-methods design (i.e. experimental study versus survey study) because of their complementarity in addressing the research questions. For instance, the experimental design could overcome the flaws associated with survey methods, such as inaccurate memory and the confounding issue (Shrout & Bolger, 2002), examining whether breach can lead to thwarted need to control. On the other hand, the survey method captures the interested phenomenon in real world, which is missing in the experimental design (Miller, Cardinal, & Glick, 1997), so as to offer

generalizability of the proposed theoretical model. Based on a mixed-method examination, this thesis examines the role of thwarted need to control in psychological contracts; it features both minimal confounding bias and generalizability, a combination that cannot be achieved with a single research paradigm.

The three main studies in this thesis were conducted over a 2-year period. The three studies were conducted in sequence to facilitate a step-by-step approach in which the latter studies expand upon the knowledge derived from the previous studies. Figure 3.1 shows a timeline for each study.

Figure 3.1. A Timeline of The Data Collection Progress for Each Study
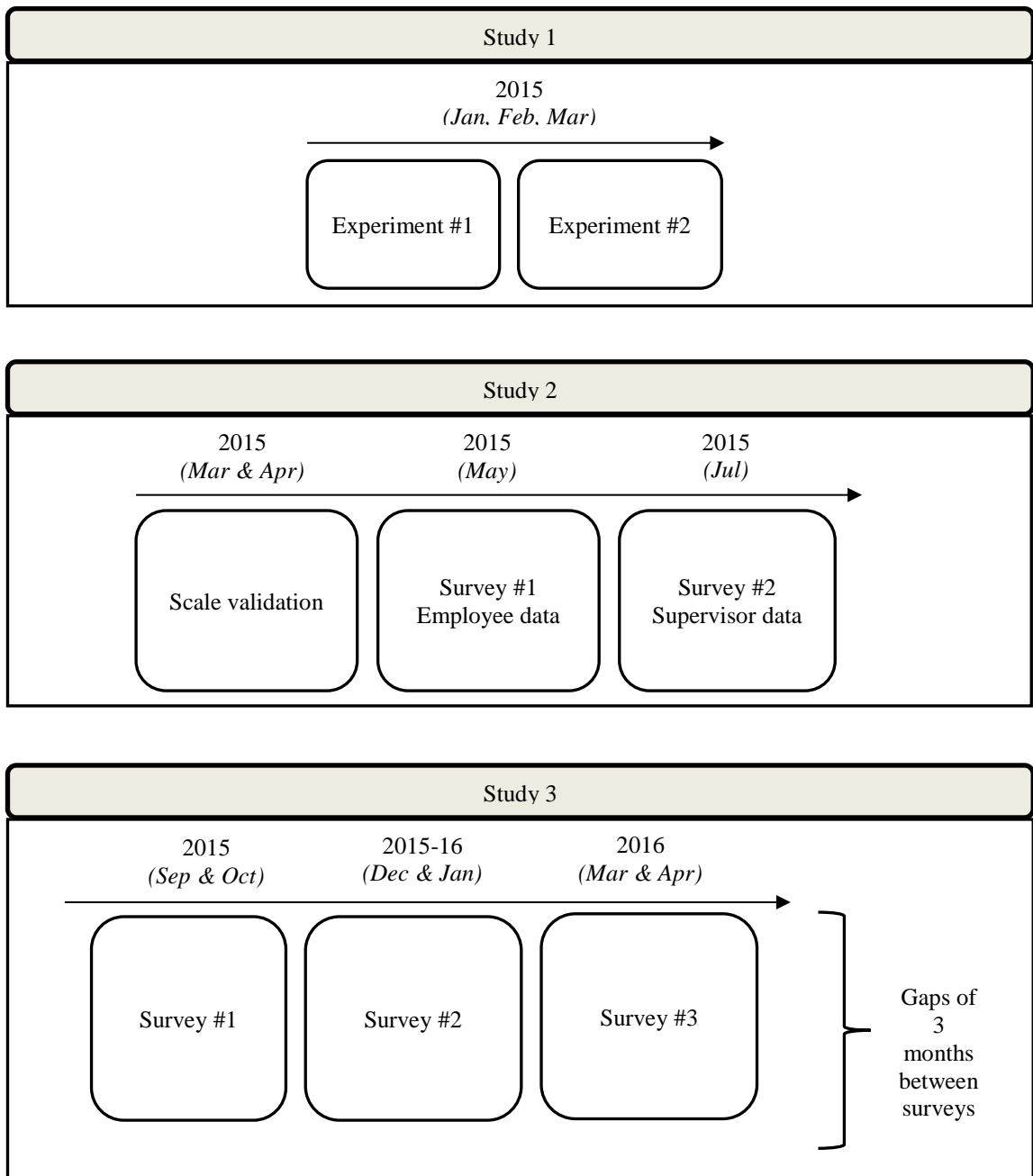
The three empirical studies consisted of five independent samples: two samples in Study 1, two samples for Study 2 and one sample for Study 3. Table 3.1 summarizes the purpose of each sample, the data collection methodology, the data sources and the specific analytic techniques used. The various methods for the selection of participants, the data collection procedures and the analytical strategies were chosen to fit the different purpose of each study. In the sections below, I will first discuss the rationale for the data collection method used in each of the studies (Sections 3.3.1 to 3.3.3), followed by the samples used and the data collection procedures in Sections 3.4.1 to 3.4.3. Then, the analytical strategies in each study (Sections 3.5.1 to 3.5.3) will be presented. Finally, in Section 3.6, the ethical considerations will be discussed followed by the conclusion of this chapter.

Table 3.2. Overview of The Research Purposes, Data Collection Methodology, Sample Sources and Analytical Strategies of The Three Studies in This Thesis

Study	Purpose	Methodology	Sample	Analytical technique(s)	Chapter
Study 1	▪ To investigate whether the need to control is thwarted after psychological contract breach	▪ Surveys and scenario-based experiments with two time points (2-week gap)	▪ Alumni from a university in Taiwan ($N = 62$)	▪ Hierarchical regression	▪ Chapter 4
	▪ To investigate the role of thwarted need to control in the interaction between psychological contract breach and willingness to engage in OCBs	▪ Scenario-based experiments	▪ Employees recruited from MTurk ($N = 62$)	▪ Hierarchical regression	▪ Chapter 4
Study 2	▪ Validation of implicit theories of EOR measure	▪ Cross-sectional surveys	▪ Full-time employees recruited from MTurk ($N = 150$)	▪ Exploratory factor analysis ▪ Confirmatory factor analysis ▪ Correlation analysis	▪ Chapter 5

	▪ To investigate the role that implicit theories of EOR have in explaining the effects of psychological contract breach on employee OCB via the thwarted-control mechanism	▪ Surveys with two time points (2-month gap)	▪ Employee-supervisor dyad data from companies in the service industry in Taiwan ($N = 164$)	▪ Multilevel regression with random intercept ▪ Moderated-mediation analysis	▪ Chapter 5
Study 3	▪ To demonstrate the uniqueness of thwarted need to control's effects after psychological contract breach	▪ Surveys across three time points (each 3 months apart)	▪ Employees studying in EMBA programs in Taiwan ($N = 124$)	▪ Hierarchical regression ▪ Moderated-mediation analysis	▪ Chapter 6

3.3 Rationale for data-collection methods

3.3.1 Study 1: Scenario-based experiment

The overall purpose of Study 1 was to gather data to examine whether the thwarted need to control occurs after psychological contract breach. Specifically, the goal of this study was to address the following two questions:

- Does psychological contract breach lead to thwarted need to control?
- Does the desire for control influence the relationship between psychological contract breach and thwarted control?

To respond to the questions above, a scenario-based experiment was chosen as the study design for the following reasons. First, in arguing that breach perceptions trigger thwarted need to control, a research design that allows for a better interpretation of causal relationships was needed. The experimental design was thus preferred because it establishes the direction of causality, and it is proposed to be the best methodology for research on the psychological pathways for human behaviours (Shrout & Bolger, 2002).

Second, experimental design has been used to examine a variety of employee perceptions, such as fairness perceptions (Messer & White, 2006), employee mental models (Marks, Zaccaro, & Mathieu, 2000), perceptions of leader position (Menon, Sim, Fu, Chiu, & Hong, 2010) and workplace ostracism (Zadro, Williams, & Richardson, 2004). However, experimental design is surprisingly underused in psychological contract research yet could advance the understanding of psychological contracts for the following two reasons.

First, experimental design helps in the accuracy of data (Shrout & Bolger, 2002). Survey methods are common in psychological contract research and one limitation is that the data on perceived contract breach are retrospective. Research relying only on retrospective reporting is problematic due to some inevitable issues, such as inappropriate rationalizations, oversimplifications, error in post hoc attributions and memory bias (Miller, Cardinal, & Glick, 1997). It is almost impossible for researchers to always capture the breach perception right after the perception is formed. Secondly, experimental design reduces the impact of confounding variables. Recall from Chapter 2 that various individual and contextual factors may influence employee reactions to psychological contract breach. When conducting the survey method in a real setting, controlling all of the potential confounding variables is very challenging. In an experimental design, the experienced stimuli will be exactly the same across participants, which minimizes the impact of confounding variables on the study results.

In brief, to explore whether psychological contract breach triggers the state of the thwarted need to control, as well as whether the state of thwarted need to control can explain why breach has impact on employee behavioural intentions, the utilization of experimental design can help to gather data with higher accuracy and reduced confounding impact. For these reasons, an experimental design was chosen for Study 1.

3.3.2 Study 2: Field study with employee-supervisor dyads

I used a field study with survey methodology to establish further support of the role of thwarted need to control after employees' experience of psychological contract breach.

As previously mentioned, an experimental design can be strong in answering whether breach influence employee behaviours via the state of thwarted need to control. However, a prominent limitation of experimental design is ecological validity, which refers to whether the observed effect can be demonstrated in the world where it should be (Brewer & Crano, 2015). The deployment of experimental design offers less knowledge for the phenomenon in real field, and it has to face the trade-offs of "low generalizability and low realism of context" (Scandura & Williams, 2000, p. 1250). Thus, even if I can demonstrate that the perception of breach under experimental conditions triggers participants' thwarted need to control, it does not offer much evidence to support the argument that psychological contract breach in an organization triggers employees' thwarted need to control in the organization. When the effect of thwarted need to control is found from the typical targets and conditions (i.e. employees and organizational setting), ecological validity will be demonstrated. Therefore, to examine the thwarted-control mechanism in the field setting is the imperative next step. Study 2 adopted a field survey to examine whether the evidence in the experiment could be generalized to the field setting.

The overall purpose of Study 2 was to examine whether the effect of thwarted control triggered by psychological contract breach in a scenario condition would replicate in a real world setting. Study 2 was a survey study of employee-supervisor dyads, with two months separating the measurement time points. The key questions driving this study were as follows:

- Does psychological contract breach trigger the mechanism of thwarted need to control in a real setting?

- What role do individual differences play in the relationship between psychological contract breach and employee behaviours via the thwarted-control mechanism?

A survey would then become an appropriate methodology to explore such research aims, allowing the employees' experience in real world to be demonstrated. I take into account two common method bias that are prevalent in survey studies: same-time effects and common rater effects (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). First, although historically a dominant methodological approach to empirical research in psychological contract is a cross-sectional design, more recently, a greater diversity in methods is visible, such as the use of lagged or longitudinal designs (e.g. Lapointe et al., 2013; Ng, Feldman, & Butts, (2014), which reduce same-time bias. In keeping with recent methodological developments, I adopted a lagged design, in which the assessment of the outcome variable (i.e. employees' OCB) is separated from the independent variable (i.e. psychological contract breach). Second, when all variables are self-reported, the results may be biased due to the artifactual covariance of the same respondent. Therefore, the study also involved gathering data from the supervisors of each employee. By definition, it would not be appropriate to have other reported perceptions of breach and or the state of thwarted need to control due to the subjective nature of the two variables. Therefore, the supervisors reported the outcome variable (i.e. employees' OCB), to reduce the common rater bias in this study.

3.3.3 Study 3: Field study with three-time surveys

The overall purpose of Study 3 was to further demonstrate whether thwarted need to control provides a unique explanation for the relationship between breach and employee behaviours compared with well-established theoretical reasons (e.g. social exchange and affective-event theory). The specific key questions that Study 3 posed were as follows:

- Does the thwarted-control mechanism provide a unique explanation for the effect that psychological contract breach has on employee behaviours?
- Can the thwarted-control mechanism explain why psychological contract breach reduce felt obligation and trigger feelings of violation for employees?

The questions above involved the empirical comparisons among psychological mechanisms triggered after psychological contract breach. Similar to the logic of Study 2, I used survey methodology to explore the potential relationships among these mechanisms.

Study 3 advances the design of Study 2 in three ways. First, separating the measurement of the predictor, mechanism and outcome variables across different time points eliminates same time bias (Podsakoff et al., 2003). Second, the baseline of the outcome was also measured so as to exclude the error variance due to the within factors of employees (Spector, 2006), showing whether a change of employee behaviours following psychological contract breach can be found.

Third, as Conway and Briner (2009) stated, "psychological contract theory gives no clear

guidelines as to…, or the appropriate time lag between breach and its effects on outcomes”, the design time frame for empirical study of psychological contract is not clear in the literature (p. 104). Limited empirical research examined the time frame issue regarding when the employee behaviour would be influenced after a perception of breach. Conway et al. (2014) suggested six months could be a sensitive time period to observe employee behavioural reactions after a workplace event. In Ng et al.'s (2010) study of psychological contract breach and employee behaviours, they also design a six-month gap between breach and outcome, with their proposed explanatory underpinning measure at the midpoint of the gap. Therefore, in Study 3, I adopted a six-month time lag overall and three-month gaps between time points to explore the employee behaviour following psychological contract breach via its impact on psychological needs.

3.4 Participants and data collection procedures

3.4.1 Study 1: Scenario-based experiment

The samples with larger variance in terms of demographical background were preferred to better respond to the research questions regarding why breach matters fundamentally. With the help of personal connections and MTurk, I used the proposed experiment methodology with two diverse samples: alumni from a university in Taiwan, and online participants in the study pool of MTurk. Compared with a sample from one particular organization, the sample of alumni from one university has greater variance in terms of job type and social status. On the other hand, MTurk has been suggested to be an online platform with considerably diverse participants (Maniaci & Rogge, 2014). The scenario-based experiment was conducted online, and it took around 10 minutes to complete.

To recruit the alumni sample, the recruiting advertisement was posted in an alumni website of a university, and whoever was willing to participate received the research link for scenario experiment by email. The alumni sample was used to explore the very first research question in this thesis: is the need to control relevant to psychological contract breach? Specifically, what are the roles for the desire for control and thwarted need to control after perceptions of breach? There were two phases for data collection: survey of the desire for control, and the scenario study of breach. In the first phase, participants were asked to fill out a short questionnaire that included the desire for control; two weeks after the first phase was done, the participant received the link to the scenario experiment, including either the breach or the control scenario with random assignment, and questions measuring thwarted need to control. Separating the two phases was adopted for the purpose of avoiding any priming effects and common-method bias that might occur regarding the measurement of thwarted need to control and the desire for control (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), especially when empirical evidence has suggested that the desire for control can temporarily fluctuate due to the influence of recent personal-control experiences (Ramsey & Etcheverry, 2013). Therefore, it is necessary to separate the assessment of the desire for control and thwarted need to control.

On the other hand, MTurk was used to collect the data to further examine whether thwarted need to control operates as a mechanism for explaining why psychological contract breach influences employee behaviours. The selection criteria for the respondents was set for people who had at least one year of work experience, as they would find it

easier to understand and answer questions about their employee experience. Participants were randomly assigned to a psychological contract breach or control condition. To prevent participants from knowing the experimental conditions, the online system released two versions of the survey at different times. User identification numbers were used to confirm that no participant had been recruited in both conditions. Having read the scenario, participants were then directed to the questionnaire, where they were asked to respond to the questions in the following sequence: manipulation check, their willingness to engage in OCBs and thwarted need to control. The participants received $1.5 as compensation if they accurately completed the validation question (i.e. "Please select strongly disagree for this question and continue").

3.4.2 Study 2: Field study with employee-supervisor dyad surveys

Study 2 was conducted with a sample of employee-supervisor dyad data in the service industry. In addition, as Study 2 required the validation of a measure of implicit theories of EOR, I used a MTurk sample for this.

First, to validate the measure of implicit theories of EOR, participants were asked questions regarding their current interaction with their organization. To ensure that all the participants from the MTurk platform were full-time employees, a qualification procedure was adopted for the participant recruitment. MTurk first released 1,000 short studies that included two questions: age and employment status (full-time, part-time, unemployed, student, homemaker and retired). Participants received an explanation that this was an independent survey so that the participants would answer honestly about their

employment statuses. After this short survey was completed, all of the eligible participants (who were employed full time) each received an email stating they qualified for a study with the link to the validation study. The link directed to the introduction page of the validation study, where respondents could see what the study was about, as well as the payment offered. Based on the MTurk guideline of an hourly rate, respondents would receive $1.5 per survey, which was expected to take roughly 10 minutes to complete.

Second, to test the proposed model in the field, employees as well as their immediate supervisors from 25 stores from different companies in the service industry in Tainan city, Taiwan, were invited to participant in Study 2. For those supervisors who agreed to help with this study, they were asked to randomly select two of their immediate subordinates. At Time 1, two copies of subordinate surveys were sent to each supervisor. To increase confidentiality, only identifying codes were present on all of the questionnaires. These codes were used to match employee data with supervisor data in the analysis stage. Examples of codes include: TY-31 and WN-12. The first two letters were the code for a certain organization, the first number was the code for a certain supervisor and the second number corresponded to a particular employee. This unique code was pasted at the top of each survey. Moreover, the subordinates returned their completed surveys by themselves directly to me by post. At time 2, two months after the subordinate surveys were collected, a survey was sent out to the supervisor. Participants were remunerated for participating. Employees who completed the Time 1 survey were offered NT$100 (£2.50) cash, and supervisors who completed at least one survey were provided with a gift of a box of tea.

3.4.3 Study 3: Field study with three-time surveys

To investigate the uniqueness of the thwarted-control mechanism for employees, the study design involved employee data with three measurement points across six months, which created a challenge in terms of the dropout rate. The sample in Study 3 was from employees enrolled in a part-time EMBA programme in Taiwan, which mitigated the degree of challenge because the enrolment of the programme manifested commitment for at least one year. The diverse types of employees from this sample, again, helped to answer the proposed questions without the restriction of a certain organization or industry.

The course leaders were approached and agreed to distribute surveys to participants at three points during a six-month period. To avoid the potential vacation time (January, February, July and August) for the students in Taiwan, I arrange the three data collection at December, March and June. I sent the printed surveys as well as envelopes to the course leaders one week prior to every scheduled administration time-point. The course leaders distributed the surveys in classes, and participants completed, sealed, and returned the surveys in envelopes provided to increase confidentiality. Participation was completely voluntary for the student, and time was given in class for those who agreed to complete the survey.

3.5 Analytical strategies

3.5.1 Study 1: Scenario-based experiment

I tested the proposed research hypotheses with the commonly-used SPSS Statistical Software version 22.0 (IBM Corp, 2013). Study 1 was a scenario-based experiment with

newly developed scenario texts, so the very first step was to examine whether the manipulations between the experimental and control groups were effective. An independent-sample *t* test compares and determines whether a significant difference of the means between two unrelated groups exists on the same dependent variable, which is suitable for examining the manipulation effect and the effect of breach on thwarted need to control. To test moderation effects, I used hierarchical multiple regression analysis to examine the interaction between breach and the desire for control. Finally, for the mediation hypothesis, I tested it following Hayes's (2013) recommendation using a bootstrapping approach with the PROCESS macro procedure in SPSS. PROCESS uses ordinary least squares or a regression-based path analytic structure to estimate direct and indirect effects in mediation models, with bootstrapping and Monte Carlo confidence intervals as ways of making inferences about indirect effects. To examine the significance of the indirect effect, I estimated the indirect effects with unstandardized coefficients from the full model (i.e. the second step in the regression model) and used bootstrapping technique to place 95% confidence intervals (CIs) around the estimates of the indirect effects (Preacher & Hayes, 2008). In line with prior studies (i.e. Ferris, Brown, & Heller, 2009), I chose 1,000 times of resampling for the procedure.

3.5.2 Study 2: Field study with employee-supervisor dyad surveys

As Study 2 required the testing of the reliability and construct validity of a newly adapted measure, the analytical techniques employed were different to testing the proposed model with the multilevel study design using a field sample.

Regarding the validation, as no measure of implicit theories of EOR exist, I adapted the three-item measure of implicit theories of intelligence that Dweck and Henderson (1988) developed, to measure the implicit theories of EOR. The purpose of this validation was to establish the reliability as well as the construct validity, including the discriminant validity, convergent validity and criterion-related validity, of the measure of implicit theories of EOR. The reliability was demonstrated with the widely used index of Cronbach's α (Price & Mueller, 1986), which examines the degree to which items assess a single construct (Kerlinger, 1986). Below, I start to introduce the procedures for how I test each type of validity.

Discriminant validity refers to the extent to which the measure differentiates from relevant measures (Hinkin, 1998). One of the recommended strategies to evaluate discriminant validity is the multi-trait multi-method matrix (MTMM) (Campbell & Fiske, 1959). Nevertheless, as there were no developed measures for implicit theories of EOR, MTMM was not an appropriate analytical strategy for this validation. Therefore, following the procedures that Mitchell, Vogel and Folger (2014) used, I used the exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) functions in the Mplus statistical package (Muthen & Muthen, 2012) to examine factor analysis of the adapted implicit theories measure and other relevant measures.

Twofold considerations for selecting appropriate measures and analytical strategies for the discriminant validity of the adapted measure of implicit theories of EOR. First, people

can hold different implicit theories in different domains, and the responses to certain domains are independent of any latent response set of implicit theories (Hong, Chiu, Dweck, Lin, & Wan, 1999). Therefore, the EFA will help to examine whether the adapted measure is specific for the domain of EOR instead of for other domains. The pattern of factor loading will be observed, such that whether the items from implicit theories of EOR are loaded highly on its own factor and lowly on all other factors, or vice versa, the items from all of the other domains will not possess high loading on the factor of items from implicit theories of EOR.

On the other hand, the adapted measure of implicit theories of EOR should also be differentiated from theoretically irrelevant variables, such as dispositional tendency, general esteem evaluation or presentational concerns (Dweck, Chiu, & Hong, 1995). Therefore, CFA was used to examine if the adapted measure was distinct, by using the fit indices (Hooper, Coughlan, & Mullen, 2008) below:

1. χ^2: the degree of discrepancy between the baseline and fitted model. The ratio with the degrees of freedom is suggested to be below or equal to 3 (Hu & Bentler, 1999; Kline, 2005).

2. Standard root mean square residual (SRMR): the discrepancy between the predicted and observed correlations. The value of this residual will be favourable if it is below 0.10 (Kline, 2005)

3. Comparative fit index (CFI): the incremental fit from null model to the hypothesized model. The value of CFI should not be less than 0.90 to claim a good model fit (Hu & Bentler, 1999)

4. Tucker-Lewis index (TLI): TLI compared the chi-squared value of null model and hypothesized model. The suggested preferable value is also no less than 0.90 (Kline, 2005)

5. Root mean square error of approximation (RMSEA): RMSEA refers to the degree of fit between the population covariance matrix and hypothesized model. A value of 0.08 or less is favourable (Browne & Cudeck, 1993).

Next, convergent validity can be demonstrated by the extent to which the measure relates to other measures of similar constructs (Hinkin, 1998), and criterion-related validity is the degree of how much a construct can be associated with other constructs according to theory (Ferris, Brown, Berry, & Lian, 2008). Following the procedure that Christoforou and Ashforth (2015) proposed, in the correlation analysis, there should be significantly correlations among implicit theories of EOR and all the proposed variables for convergent and criterion-related validity.

On the other hand, for the examination of the proposed moderated-mediation model, except for gender, which is a dummy variable, I had all predictors in the model grand-mean centred to avoid issues of multicollinearity (Aiken & West, 1991). Because the focal outcome variables in this study were nested in supervisors, the data were non-independent, thus violating the assumption of traditional multiple regression techniques. The standard

errors of regression coefficients had to be adjusted for non-independent data so that the statistical significance would not be overestimated (Filed, 2009). Therefore, appropriate multilevel analysis that considered adjustment needed to be performed. A series of random intercept models were used to test the hypotheses, and I performed these moderated regression models with mixed modelling in SPSS statistical software version 22.0 (IBM Corp, 2013).

To estimate the interaction pattern, simple slope analysis was to facilitate the interpretation. I used one and two standard deviations above or below the mean (Aiken & West, 1991) of implicit theories of EOR to indicate entity theorists or incremental theorists. Furthermore, following Tofighi and MacKinnon's (2011) guideline, I estimated conditional mediation effects by computing the confidence interval (CI) for entity and incremental theorists respectively. I tested the moderated mediation hypotheses at two standard deviations above and below the mean to demonstrate the moderated-mediation effect.

3.5.3 Study 3: Field study with three-time surveys

Unlike Study 2, which involved a multilevel data structure, the three waves of data in Study 3 were employee self-reported, so the hierarchical regression used in Study 1 was a valid analytical strategy for Study 3. Similarly to in Study 1, I tested the hypothesis with the commonly used SPSS statistical software version 22.0 (IBM Corp, 2013). All predictors in the model were grand-mean centred (excluding gender because it is a dummy variable, where 0 for female and 1 for male) to avoid issues of multicollinearity (Aiken &

West, 1991). Hierarchical regressions were conducted for the examination of the mediation, moderation and moderated-mediation models and did not involve multiple mediators. With the benefits of repeat data collection from the same employee, I was able to include the dependent variable at an earlier time as a control variable to control for the error variance due to the within factors of employees (Spector, 2006).

One of the major purposes in Study 3 was to demonstrate the uniqueness of the thwarted-control mechanism, which required simultaneous examination of multiple mediators in the model. Therefore, the path analytic approach (Edwards & Lambert, 2007; Hayes, 2013) and the PROCESS procedure that Hayes (2013; Model 7) developed were used to examine the proposed multiple mediator model, as this procedure adjusts every paths for the potential variance of covariates not treated as mediators in the model (Preacher & Hayes, 2008). Similarly to in Study 1, I estimated the indirect effects with unstandardized coefficients and used the bootstrapping technique to place 95% confidence intervals (CIs) around the estimates of the indirect effects (Preacher & Hayes, 2008), with 1,000 times of resampling for the procedure.

For the interpretation of moderation effects, in addition to the result of multiple regressions, similar to Study 2, I also performed simple slope analysis with a diagram produced to facilitate the interpretation (Dawson, 2014). Furthermore, the index of moderated mediation generated via the PROCESS procedure (Hayes, 2013; Model 7) was also used to examine the significance of the indirect effect of breach on the dependent variables via thwarted need to control.

3.6 Ethical considerations

Regarding the research ethics, I followed the guidelines that the LSE Research Ethics Committee (2015) and the British Psychological Society (2009) introduced. Participants were provided with informed consent as well as my contact information before they started with the research task. Confidentiality was stated such that no one other than me would have direct access to the data, and only the aggregate data from the overall sample were available for further analysis.

3.7 Chapter summary

This chapter has hitherto outlined the multi-study and multi-method approach to data collection conducted in this thesis, describing the overall rationale for the methods, recruitment of participants and data analytic techniques used in the three empirical studies. Further and more detailed information regarding the methodology is provided in the following respective results chapters. Having articulated the overall methodology, in the following chapters, I present the empirical studies of this thesis: Chapter 4 presents a scenario-based experiment of psychological contract breach and the need to control (Study 1), Chapter 5 explores the relationships among psychological contract breach (Study 2), thwarted need to control and implicit theories of EOR, and Chapter 6 rounds off the result chapters by discussing the uniqueness of thwarted need to control as an explanation for the consequences of psychological contract breach (Study 3).

Chapter 4:
Study 1: Scenario-based experiment of psychological contract breach and need to control

4.1 Chapter overview

Having outlined the overall methodology adopted in this thesis in the previous chapter, this is the first of three results chapters. In this chapter, the focus is on the role of psychological needs in explaining how employees interpret and respond to psychological contract breach. Chapter 4 consists of two scenario-based experiments to demonstrate the role of psychological need in psychological contract breach, providing the foundation for two field studies in subsequent empirical chapters.

4.2 Introduction

Recall from Chapter 2 that social exchange theory (Blau, 1964) and affective-event theory (Weiss & Cropanzano, 1996) provide the dominant bases for explaining the consequences of psychological contract breach for employees. In brief, social exchange theory suggests that psychological contract breach reduces employees' felt obligation, which, in turn, leads to negative attitudes and behaviours towards the organization. On the other hand, affective-event theory suggests that psychological contract breach causes affective reactions, such as feelings of violation, which, in turn, influences employees' work attitudes and performance (Weiss & Cropanzano, 1996). Drawing on the literature, the reasons why psychological contract breach shapes employee behaviour are explained via employee cognition and affect. However, as stated in Chapter 2, a motivational psychology perspective (Reeve, 2009) emphasizes the role of psychological needs in underpinning employee behaviour, which is an issue downplayed in psychological contract research. Overlooking psychological needs as the motive between breach and employee behaviours is undesirable (Meckler et al., 2003), and it may explain why breach

has been found to produce weaker effects on work-related behaviours relative to work-related cognitions (Conway & Briner, 2009). The consideration of psychological needs offers the holistic motivational profile for employees after the perception of breach, and this chapter will take the first empirical step to examine the proposed overarching research model in this thesis.

To re-emphasize, in the present thesis, it is argued that by integrating psychological contract breach and employees' thwarted need to control, knowledge of the relationship between breach and employee behaviours can be advanced. The main research question in this thesis is to examine whether breach triggers employees' thwarted need to control, which, in turn, serves as an alternative explanation for why breach matters for employees. In addition, because the role of individual differences has been overlooked in the thwarted-control literature, the aim of this thesis is also to uncover how thwarted need to control may shape the effect of breach on employee behaviours via the thwarted-control mechanism.

To explore the research questions above, the general theoretical framework which this thesis relies on is the thwarted-need perspective (Carver & Scheier, 1982). The thwarted-need perspective suggests that an individual psychologically possesses a comparator to constantly monitor whether their current level of need satisfaction matches their preferred level of need satisfaction. A thwarted-need state occurs when the current level of satisfaction fails to meet the preferred level of satisfaction, which creates tension for the individual (Carver & Scheier, 1982). This tension is socially painful and threatening, and

it potentially leads to negative feelings, such as helplessness and alienation (Williams, 2009), which can be responsible for the performance of negative behaviours or withdrawal of positive behaviours (Robinson, O'Reilly, & Wang, 2009; Baumeister & Leary, 1995). Moreover, the thwarted-need perspective suggests that individuals vary in preferred level of need satisfaction (Carver & Scheier, 1982). Therefore, given the same actual level of need satisfaction, individuals may differ in the extent to which they perceive a gap between their actual and preferred level of need satisfaction. Individuals with different dispositions can have different preferred levels of need satisfaction. Thus, the experienced magnitude of the thwarted state can vary across individuals.

Based on the thwarted-need perspective, in this chapter, I propose a thwarted-control perspective to understand employees' experience of psychological contract breach. In brief, psychological contract breach may trigger the state of the thwarted need to control, which, in turn, influences employees' behavioural reactions. Moreover, the desire for control, which is a disposition that reflects the general preferred level of control in various situations, will influence the magnitude of thwarted need to control (Burger & Cooper, 1979). The desire for control will be treated as the individual difference shaping the relationship between breach and employee behaviours in the thwarted-need perspective. In addition, the targeted employee behaviour will be OCB because the thwarted-control mechanism may advance understanding about prior mixed empirical findings of the differential effects of breach on OCBO versus OCBI (Lavelle et al., 2007; Robinson & Morrison, 1995). The detailed reasoning for this empirical model will be discussed in the

following hypothesis sections. Figure 4.1 depicts the hypothesized empirical model for investigation.

Figure 4.1. The Hypothesized Conceptual Model in Study 1
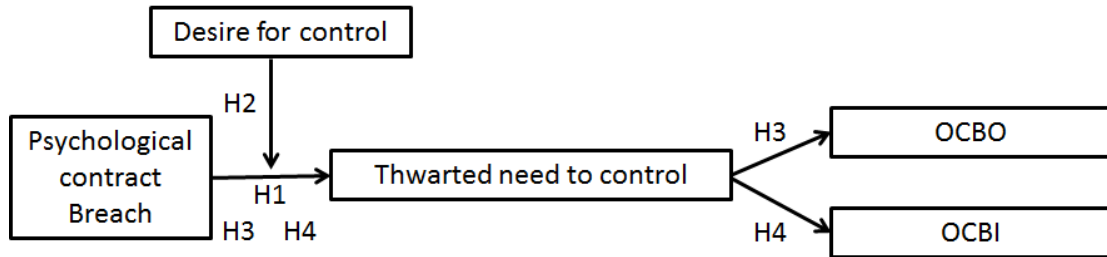
As the first empirical study in this thesis, the aim is to answer three major research questions. First, does psychological contract breach lead to thwarted need to control? Second, does the desire for control influence the impact of breach across individuals? Third, does thwarted need to control explain the relationship between breach and OCB? Now, I turn to the theoretical reasoning for the hypotheses in Study 1.

4.3 Hypotheses

4.3.1 Breach and thwarted need to control

Psychological contract breach may induce the state of the thwarted need to control. In general, individuals need a sense of control because they "innately desire to engage in effective interactions with the environment … and experience themselves as producing desired effects and preventing undesired effects" (Skinner, 1996, p. 557). The experience of being in control produces joy and interest, maintains adaptive psychological functioning, and supports general well-being (Leotti, Iyengar, & Ochsner 2010; Skinner, 1996). When an employee perceives psychological contract breach, the expected

contingency within the EOR is disrupted and potentially thwarts the need to control. The reduced sense of control is argued to be one of the main reasons why breach is a stressful experience for employees (Shore & Tetrick, 1994). Gakovic and Tetrick (2003) also stated that "psychological contract breach would be associated with a decrease in employee perceptions of predictability and control" (p. 243).

Psychological contract breach thwarts employees' need to control because breach: (a) disrupts the contingency, (b) undermines efficacy belief and (c) forces the removal of choices. First, the need to control in the organizational context is manifested by employees' expectation of the contingency between their means and ends at work (Skinner, 1996), which their psychological contracts specify. With psychological contracts in mind, employees perceive a sense of control in their relationships with their employer, as the expected contingency between how the two parties will treat each other is specified (Shore & Tetrick, 1994). A breach in an employee's psychological contract represents a salient rupture of the contingency between promises and delivered inducements, triggering employees' realization that the outcomes they receive are not as contingent as they thought—thus leading to the state of thwarted need to control. Therefore, when the employee perceives breach, the need to control is thwarted due to the disrupted contingency in employees' expectations.

Second, thwarted need to control can be experienced when an efficacy belief is reduced (Skinner, Wellborn, & Connell, 1990). Employees are more likely to experience a sense of control when they believe that they have efficacy at work (Conger & Kanungo, 1988;

Rosso et al., 2010). The mutual fulfilment of the psychological contracts provides a platform for employees to develop positive evaluations of themselves because they have more positive social cues to increase their evaluation of efficacy (Gardner, Huang, Niu, Pierce, & Lee, 2014). Therefore, psychological contract fulfilment is important for facilitating the efficacy belief amongst employees, which then allows for the development of a sense of control. On the contrary, experience of social failure undermines efficacy belief (Bandura, 1986), so if the organization breaks the promises to employees, it is likely to undermine the employees' belief in their own capabilities to successfully organize and perform actions (Cantisano et al., 2007). With lowered efficacy at work due to breach, employees are likely to experience the state of thwarted need to control.

Third, breach can lead to thwarted need to control due to the interpretation of choice removal by the organization. As Leotti, Iyengar and Ochsner (2010, p. 457) stated, "Choice is a vehicle for perceiving control" (p. 457). People tend to experience the thwarted need to control when they perceive the availability of choices has been removed (Skinner, 1996). Obviously, when more choices are available in a given context, people are more likely to generate a sense of control, as they are able to make decisions. Exercising personal choice helps to fulfil the need to control (Lefcourt, 1973), and reciprocation is formed by the mutual choice to contribute to each other. A breach from the organization signals that the organization has removed the choice to mutually contribute. Thus, an employee's need to control is thwarted.

Let us recall the comparator mechanism of thwarted needs. Breach triggers a salient discrepancy in employees' mechanism of need satisfaction comparator, signalling that the current level of satisfaction fails to meet the preferred level of satisfaction and creates tension for the employee. The theoretical reasons for why breach can induce this discrepancy, including the rupture of contingency, lowered efficacy belief and choice removal in the organization. Based on the above reasoning, I proposed the first hypothesis in this study:

Hypothesis 1: *Employees' perception of psychological contract breach will be positively related to their thwarted need to control.*

4.3.2 Effect of desire for control

Employees' desire for control may influence the state of the thwarted need to control after psychological contract breach. The desire for control is the disposition that captures the innate desire to pursue, experience and maintain a sense of control (Burger & Cooper, 1979). People who possess a high desire for control are strongly motivated to control events that happen in their lives and environments, influence or lead the people around them, be in charge of their own decisions and activities, and prevent the possibility of relinquishing the aforementioned experience (Burger, 1990). The desire for control is conceptually distinct from a sense of control, as the former refers to a trait-like characteristic, whereas the latter is a state varying with situations. The desire for control has been found empirically to be associated with affective well-being (Burger, 1984) as well as a wide range of behavioural outcomes, such as academic performance (Burger, 1992), health behaviours (Woodward & Wallston, 1987), work behaviours (Ashford &

Black, 1996) and even criminal behaviours (Craig & Piquero, 2016).

To reiterate, Hypothesis 1 suggested that psychological contract breach will have a positive association with the state of thwarted need to control. Breach reflects a lower level of control below employees' preferred levels of control, which triggers the experience of thwarted need to control. The desire for control refers to the tendency to pursue and maintain a sense of control, that is, to minimize the gap between the actual and preferred level of control. Employees with a high desire for control are strongly motivated to avoid this gap, whereas employees with a low desire for control care less about whether a gap exists. Therefore, I propose that the desire for control can strengthen the relationship between psychological contract breach and the state of thwarted need to control.

Specifically, at least three theoretical reasons exist for how the degree of the desire for control can come into play. Employees with a higher desire for control tend to have (a) a higher expectation of the contingency between the means and ends at work, (b) a higher motivation to influence the organization and (c) a lower tolerance for choice removal. Below, I explain each theoretical reason in detail.

First, employees who have a higher desire for control innately tend to pay close attention to, even strive to manipulate, the contingency between means and ends in life events (Burger, 1990). They highly expect a predictable contingency between what they contribute and what they receive in the organization. Psychological contracts capture this

anticipated contingency for employees, so the perception of psychological contract breach indicates that the contingency is actually out of sync with employee expectations. Employees with a higher desire for control are likely to have strong reactions to breach because they have a higher expectation of contingency in the organization. On the other hand, employees with a lower desire for control place less emphasis on this contingency. Consequently, they possess a more lenient expectation of how the contingency should operate. Therefore, breach is likely to trigger weaker reactions in employees with a lower desire for control.

Second, the desire for control refers to a person's desire to influence the environment (Burger & Cooper, 1979), so employees with a higher desire for control value their influence on the organization to a greater degree. One of the key functions of psychological contracts is the experience of influence. Psychological contracts offer a sense of influence for employees regarding how they can potentially change their relationships with the organization. The fulfilment of psychological contracts facilitates this sense of influence, whereas psychological contract breach would impose a threat to the experience of a sense of influence. Therefore, employees who value a sense of influence more, that is, employees who possess a higher desire for control, will then experience a greater impact of psychological contract breach.

Finally, the degree of the desire for control can shape reactions to psychological contract breach because it corresponds to different levels of tolerance for choice removal. The availability of choices offers a sense of control because individuals believe they can be in

charge of their own decisions and activities (Burger, 1990; Skinner, 1990). Salthouse (1982) also mentioned that the desire for control is the desire for choice. Therefore, employees with a higher desire for control tend to have a lower tolerance for situations where the removal of choices is forced upon them. Psychological contract breach may be experienced as a choice removal event, especially in the case of proactive reciprocation. As Coyle-Shapiro (2002) suggested, in addition to reactive reciprocation, employees also engage in proactive reciprocation to ensure that the employer will continue to contribute to them in the future. That is, psychological contracts can motivate employees to contribute before getting an organizational reward. Therefore, for employees' proactive reciprocation, a chosen reward from the organization precedes the contributions of employees. The perception of breach, however, would then break this expectation, signalling to employees that the choice for reward was never available. Employees with a higher desire for control have a lower tolerance for choice removal and thus stronger reactions to the perception of psychological contract breach.

Based on the reasoning above, in this research, I proposed that the desire for control can shape the relationship between psychological contract breach and the thwarted need to control. Those with a high desire for control possess a higher expectation of the contingency between the means and ends, more emphasis on a sense of influence, and a lower tolerance for the experience of choice removal, thus engendering a stronger state of thwarted need to control after the perception of breach.

Hypothesis 2: *The desire for control will moderate the relationship between breach perception and thwarted need to control by amplifying the relationship, such that the relationship is stronger when the desire for control is high.*

4.3.3 Thwarted need to control as mechanism linking breach and employee behaviours

Recall that the aim of this thesis is to delineate the motivational profile of employee behaviour following psychological contract breach by exploring the role of psychological needs. Specifically, this thesis will focus on how thwarted need to control may link psychological contract breach with OCB. Before I explain the reasons why OCB was selected as the key employee behaviours in this thesis, I provide a brief review on OCB to demonstrate its definition, its importance and its relationship with psychological contracts.

Organ (1988) defined OCB as "individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (p. 4), and proposed that OCB consists of five types of behaviours: altruism, conscientiousness, courtesy, civic virtue and sportsmanship. Williams and Anderson (1991) later focused on target beneficiaries and distinguished between two forms of OCB. OCBO refers to the OCB directed towards organizations, such as conscientiousness, civic virtue and sportsmanship, and OCBI refers to the OCB directed towards individuals, such as altruism and courtesy. Studying employee OCB is valuable because it "holds promise for long-term organizational success" (Van Dyne, Graham, & Dienesch, 1994, p. 765). It also contributes to the effectiveness of

organizations (George & Bettenhausen, 1990; Organ, 1988; Podsakoff & MacKenzie, 1994). An organization that fails to motivate employees to engage in OCB is argued to be fragile and may "soon grind to a halt" (Katz, 1964, p. 269) because OCB facilitates a positive psychosocial environment for work performance to evolve (Organ, 1997). Not surprisingly, psychological contract breach has been found to be negatively associated with OCB (Chen et al., 2008; Lo & Aryee, 2003; Robinson, 1996), supporting the idea that employees reciprocate detrimental treatment from their employer by withdrawing their OCB. A meta-analysis by Zhao et al. (2007) also revealed that breach strongly predicts OCB via its effect on affective responses, such as violation, and cognitive responses, such as commitment.

At least two reasons exist for supporting the importance of studying the role of needs in understanding the breach-OCB relationship. First, although needs are the motivational reason underpinning the EOR-OCB relationship, they have been neglected in the research on psychological contract breach. As an illustration, Ho and Kong (2015) argued that idiosyncratic deals signal employees' value in the organization and satisfy their need for competence, which, in turn, motivates them to engage in OCB. They argued that the focus on the satisfaction of the need for competence offers theoretical advancement to the literature by going beyond the dominant social exchange theory to explain the relationship between idiosyncratic deals and OCB. To uncover how psychological needs can underpin breach and OCB, this study will also provide a theoretical contribution by extending the motivational reason for why breach leads to reduced OCB.

Second, the relationship between psychological contract breach and OCBI is unclear, and the thwarted-need perspective may address how such breach are linked to OCBI. Theoretically, psychological contracts capture employees' relationships with their organizations, so breach in these contracts should have a greater impact on OCBO than on OCBI (Robinson & Morrison, 1995). In the target-similarity model (Lavelle et al., 2007), it is also argued that employees' reactions will be directed to the original focus such that breach influences only the felt obligation towards the organization and not their co-workers. However, although breach seems to be consistently and negatively related to OCBO (Coyle-Shapiro, Diehl & Chang, 2016), the evidence for OCBI is mixed. Some empirical studies indicated a significant negative association between breach and OCBI (e.g. Chen et al., 2008; Restubog, Bordia, & Tang, 2007; Suazo & Stone-Romero, 2011), whereas other studies reported no significant association (e.g. Conway et al., 2014; Priesemuth & Taylor, 2016; Turnley, Bolino, Lester, & Bloodgood, 2003). This suggests that sometimes employees may or may not direct their reciprocation away from the source of the harm (i.e. the organization), thus highlighting the limitations of a reciprocity explanation. The thwarted-need perspective offers an alternative lens for describing how breach can influence OCBI by imposing threats on the regulatory functioning of employees.

Having articulated the importance of studying the role of needs between psychological contract breach and OCB, in this section, I outline the theoretical reasons for the hypothesis. Recall that Hypothesis 1 suggested that breach thwart employees' need to control. Here, I further argue that the state of thwarted need to control due to breach shapes

an employee's motivational state, decreasing OCBO and OCBI. Three explanations for this exist. First, the state of thwarted need to control in an organization triggers feelings of alienation (Kanungo & Rabindra, 1979) in the organization and its members. This feeling of alienation reflects a lack of "commitments to communal welfare" (Twenge et al., 2001, p. 1068), which is required for employees' performance of OCB. This alienation further reduces employees' caring and concern for the organization and for their co-workers, thereby reducing their motivation to engage in behaviours that benefit them (Pavey, Greitemeyer, & Sparks, 2012).

Second, the thwarted need to control creates tension and requires effort to regulate (Williams, 2009). In addition, OCBO and OCBI are extra-role behaviours requiring the exertion of additional effort (Trougakos, Beal, Cheng, Hideg, & Zweig, in press), which will compete with the effort needed when an employee has to engage in the regulation of thwarted need to control. Wheeler (2009) suggested that individuals tend to prioritize the regulation of thwarted need to control over the regulation needed for prosocial behaviour. Thus, employees experiencing thwarted need to control may not have the additional resources needed to engage in OCBO and OCBI. The inner state of thwarted need to control should gear the employee to cope with threats instead of offering help.

Third, based on the affective events theory (AET) (Weiss & Cropanzano, 1996), OCBO and OCBI can be regarded as expressive emotional behaviours, such that positive affect is needed to facilitate the expression of OCBO and OCBI for employees. Dalal, Lam, Weiss, Welch and Hulin (2009) empirically found that positive events experienced at

work increase positive affect and, in turn, influence OCBO and OCBI. Employees with high levels of thwarted need to control experience negative affect, which can include anxiety, helplessness, and anger (Agrigoroaei & Lachman, 2010; Baumeister & Leary, 1995; Lazarus, 2006), which offers few affective triggers for OCBI. Based on the above reasoning, in this research, I proposed that employees' thwarted need to control mediates the negative relationship between psychological contract breach and both OCBO and OCBI. As such, I hypothesized the following:

Hypothesis 3: *Thwarted need to control mediates the relationship between psychological contract breach and the willingness to engage in OCBO.*

Hypothesis 4: *Thwarted need to control mediates the relationship between psychological contract breach and the willingness to engage in OCBI.*

4.4 Methodology (Study 1-1)

Study 1-1 involved examining the prediction that breach will lead to the employee experiencing thwarted need to control (Hypothesis 1), and that the desire for control will moderate the relationship (Hypothesis 2). As explained in Chapter 3, in Study 1, the experiment design was chosen due to its strength in exploring the psychological mechanism and establishing the direction of causality (Shrout & Bolger, 2002). The study included a breach condition and a control condition.

4.4.1 Participants

There were 62 adults (47% female; age, $M = 28.31$, $SD = 2.89$) recruited from a university alumni association in Taiwan participated in the study. A total of 74% of participants reported having at least one year of working experience. The recruiting announcement was posted on the alumni website, and whoever was willing to participate received the link to the appropriate questionnaires by email. There were 30 participants in the breach condition and 32 participants in the control condition. No significant differences in age and gender were found amongst respondents across the two conditions.

4.4.2 Procedure

Study 1-1 featured two phases of data collection. In the first phase, participants were asked to fill out a short questionnaire measuring their desire for control only; two weeks after the first phase was completed, the participants received the link to the questionnaire for the scenario experiment, including either the breach or the control scenario with random assignment and questions for thwarted need to control. Separating two weeks between the two phases was adopted for the purpose of avoiding any priming effects and common method bias that might occur between the measure of thwarted need to control and the desire for control (Podsakoff et al., 2003). Furthermore, empirical evidence suggests that the desire for control can temporarily fluctuate with the influence of recent personal control experience (Ramsey & Etcheverry, 2013). Therefore, it is necessary to separate the assessment of the desire for control and thwarted need to control, providing justification for the two-phase procedure.

In total, 80 participants completed the questionnaire for phase 1. Two weeks after

receiving the completed questionnaire, I sent out the link for the scenario experiment in phase 2. A reminder email was sent after one week for those who receive the link for the scenario experiment, and 62 participants responded in phase 2. Only the data from participants who completed both phases were analysed in this study.

4.4.3 Measures

Desire for control. Participants completed the 20-item scale assessing the desire for control, developed by Burger and Cooper (1979), on a seven-point scale (1 = strongly disagree, 7 = strongly agree). Sample items included "I prefer a job where I have a lot of control over what I do and when I do it" and "I enjoy making my own decisions" (α = .68).

Scenarios. To manipulate the experience of perceived breach, I developed scenarios to capture broken promises from a supervisor at work. Each scenario contained two paragraphs. The first paragraph was identical in both the breach and the control condition, which described an employee receiving promises from his or her supervisor regarding a pay raise and job promotion.

I am an engineer with several years of experience, and I just changed to a new job recently. When my new supervisor asked me about my expectations in this new job during the recruitment interview, I mentioned that although I am willing to start as an assistant engineer, I am really eager to be promoted to a software designer next year. I am enthusiastic about designing, and I also want the higher salary as a software designer. My supervisor told me that "I am very happy to know you are enthusiastic, and we do

need many software engineers as well. Based on your past experience, I can assure you that you will become one of our software designers next year. The first year as an assistant engineer is only a process for you to get familiar with our company. You will become a software engineer and get the salary promotion next year for sure. With the supervisor's promise, I started this job eagerly."

The second paragraph described whether the promise was breached or not, corresponding to the breach or control condition. To exclude the potential influence of the supervisor in the scenario, the supervisor was used across the two conditions instead of a name or reference to gender (i.e. *she* or *he*) so as to avoid influence of gender or race. Below, I present the scenarios in the second paragraph, first for the breach condition, and then for the control condition:

For *the* breach condition: *One year has passed. I have utilized my experience to contribute to my work and tried my best to achieve whatever I am told, and my supervisor had also thought I had achieved all the expectations of the company. Later, my supervisor announced the result of the personnel arrangement next year. My name was not shown in the list of software designers. I will still be an assistant engineer, and there is not any change in my job or position. My supervisor confirmed that the information in the announcement was correct. I have to do the same job with same position next year, and the salary will also keep the same as my first-year salary*

For the control condition: *It has been several months since I started this job. I tried to adjust myself into the work process and environment here step by step. Occasionally I encounter a little difficulty, but overall I think I am on track. I do not know whether I can definitely be promoted and get more salary next year as expected. After all, there is actually no way I can know or even predict the result before it is announced. The only thing I can do now is try to do the job well and wait for what I want in the future*

After reading the scenario, the participants first replied to questions related to the manipulation checks and then the questions related to thwarted need to control. The questions used for the manipulation checks comprised the five-item global breach scale that Robinson and Morrison (2000) developed; it uses a five-point scale from 0 (*disagree*) to 4 (*agree*). A sample item is, "I have not received everything promised to me in exchange for my contributions". In Study 1-1, the Cronbach's α for this breach scale for the manipulation check was .96.

Thwarted need to control. Thwarted need to control was assessed using a five-item scale that Zadro, Williams, and Richardson (2004) developed. The scale was originally developed to measure how an ostracism experiment thwarted participants' need to control. Because their experiment was conducted via a computer game, the items asked participants to share their feelings of thwarted need to control that they experienced during the game with questions such as "I felt in control over the game" and "I felt the other players in the game decided everything". To fit the current study context, the questions were rephrased such that "other players in the game" was replaced with "others in the

organization". For example, "I felt in control over the game" was rephrased as "I felt in control in the organization", and "I felt the other players decided everything" was rephrased as "I felt others in the organization decided everything". The scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores reflected greater thwarted needs. In Study 1-1, the Cronbach's α for thwarted need to control was .78.

Control variables. I controlled for the age and gender of the participants due to their potential effects on reactions to psychological contract breach (Shore et al., 2018). The role of age in psychological contract research is usually addressed via socioemotional selectivity theory, which claims that the relative weighting of social goals depends on how open ended or limited the time is in certain lifespan stages (Carstensen et al., 1999). Age has been found to be a significant predictor of psychological contract formation and psychological contact breach (Hedge et al., 2006; Ng & Feldman, 2009). A meta-analysis on age and psychological contracts (Bal et al., 2008) also showed that age moderates the relationship between contract breach and job attitudes. As for gender, Tallman and Bruning (2008) found a difference between women and men in the content of psychological contracts as well as in the perceived importance of psychological contract fulfilment (Willem, De Vos, & Buelens, 2010). Moreover, the pattern of moderation in the relationship between breach and turnover also revealed a gender difference. Specifically, for woman, the breach of promotional opportunities and the breach of work-family balance were better predictors of turnover intentions, whereas for men, breach concerning the clarity of a job description was a better predictor of turnover intentions (Blomme, van Rheede, & Tromp, 2010). In addition, empirical evidence suggested that

the consequence of a sense of control is conditional upon age (Imel & Dautovich, 2016). Therefore, controlling for both age and gender in this study was necessary.

The scenarios and questionnaire items distributed to the participants were in Mandarin. To ensure the translated materials will be equivalent, I followed the translation back-translation procedures proposed by Brislin (1970). There were two native Mandarin speakers who are PhD Candidates in psychology in the UK invited to conduct the translation. The concerns raised were later discussed and agreed by them to ensure the translation was as appropriate as possible.

4.4.4 Analysis

I tested the predictions with the commonly used SPSS statistical software version 22.0 (IBM Corporation, 2013). An independent-sample t test was used to examine the manipulation effect and the effect of breach on thwarted need to control. To test moderation effects, I used hierarchical multiple regression analysis to examine the interaction between breach and the desire for control. In Step 1, I entered breach manipulation and the mean-centred scores of desire for control. In Step 2, I entered their computed interaction term.

4.4.5 Results

Manipulation Check. Means and standard deviations of the variables are presented in Table 4-1. Participants in the breach condition reported significantly higher breach perception on the breach scale ($M = 2.99$, $SD = .96$) than did those in the control condition,

($M = 0.47$, $SD = .58$), $t(60) = 12.394$, $p < .001$, suggesting an effective manipulation of psychological contract breach perception by the experiment scenarios.

Table 4.1. Mean Differences between Breach and Control Conditions on Thwarted need to control in Study 1-1

Condition	Manipulation check (breach perception)			Thwarted control		
	M	SD	p	M	SD	p
Breach	2.99	0.96		4.43	1.13	
Control	0.47	0.58		3.89	0.94	
			.00			.05

Note. Breach $n = 30$; control $n = 32$. Higher scores indicate higher breach and higher thwarted needs.

Breach and thwarted need to control. Participants who experienced the breach manipulation showed significantly higher thwarted need to control ($M = 4.43$, $SD = 1.13$) than did those in the control condition ($M = 3.89$, $SD = .94$, $t(60) = 2.03$, $p < .05$). When thwarted need to control was regressed on the dummy-coded breach and control condition (1 = breach and 0 = control), the results also demonstrated a significant main effect of breach manipulation on thwarted need to control ($B = .25$, $R^2 = .05$, $p < .05$). These results provided support for Hypothesis 1 that the perceptions of breach are positively related to thwarted need to control.

Moderation effect of desire for control. The results of this regression analysis were listed in Table 4.2. In Step 1, breach (dummy coded: 0 = control group, 1 = breach group) explained a significant amount of variance in thwarted need to control ($B = .26$, $t(60) = 2.09$, $p < .05$), and the centred scores of the desire for control did not predict thwarted need to control ($B = -.09$, $t(60) = -.75$, n.s.). In step 2, I added the interaction

term between the desire for control and breach to the model. The result revealed that the interaction term was not a significant predictor ($B = -.14$, $t(60) = -.75$, n.s.), which does not support Hypothesis 2.

Table 4.2. *Multiple Regression Model Predicting Thwarted Need to Control in Study 1-1*

	Thwarted need to control	
Variable	Step 1	Step 2
Age	.01	.01
Gender	.41	.40
Main effect		
Breach	.57*	.56*
DFC	− .20	.00
Interaction effect		
Breach × DFC		−.40
Total R^2	.05	.04
ΔR^2		.01

Note. DFC, desire for control; except for R^2, numbers in the table indicate unstandardized coefficients of the regression.

4.4.6 Discussion

In Study 1-1, the breach and control conditions effectively manipulated the breach perceptions of individuals, which echoes that scenario-based experiment is a valid method to study breach reactions (Ho, Weingart, & Rousseau, 2004). The findings demonstrated that breach indeed thwarts the need to control. Compared with the existent literature focusing on cognition and emotion after breach, the finding in this study reveals how employees feel in terms of what they need, offering an essential starting point for the psychological need process of employees after experiencing breach in the organization.

The result of Study 1-1 did not support the proposed moderation effect of the desire for control. The interaction between breach and desire for control is not a significant predictor of thwarted need to control. This could demonstrate that employees' *desire for control in general* may not accurately reflect the *desire for control in the organization*.

Study 1-1 supported the link between breach and a thwarted need, but it did not explore whether thwarted need to control can have an influence on subsequent employee behaviours. Study 1-2 extends this question by addressing whether thwarted need to control can mediate the effect of breach on the willingness to engage OCB. There are two research aims for Study 1-2. First, it investigates the robustness of results in Study 1-1, in particular, whether another sample can replicate the linkage between breach and thwarted need to control. Second, it examines whether the state of thwarted need to control can influence the willingness of participants to engage in OCB.

4.5 Methodology (Study 1-2)

The major aim of Study 1-2 was to test the mediation hypothesis that thwarted need to control can mediate the relationship between breach and employees' willingness to engage in OCBO and OCBI (Hypothesis 3). Additionally, the linkage between breach and thwarted need to control (Hypothesis 1) was also examined to see whether it can be replicated in another sample.

4.5.1 Participants

An online scenario experiment was conducted with sixty-four respondents who were recruited from MTurk. All respondents had at least one year of work experience. Two respondents were excluded because they failed to pass the validation question (i.e. "Please select *strongly agree* for this question"). The final sample (55% female; age, $M = 35.3$, $SD = 11.8$) consisted of 30 participants in the breach condition and 32 participants in the control condition. No significant differences in age or gender were found amongst respondents across the two conditions.

4.5.2 Procedures

The same scenario experiment as in Study 1-1 was translated in English and distributed to the participants. Participants were randomly assigned to a psychological contract breach or control condition. To prevent participants from knowing the experimental conditions, the online system released two versions of the survey at different times. User IDs were used to confirm that no participant was been recruited in both conditions. Having read the scenario, participants were then directed to the questionnaire, where they were asked to respond to the questions in the following order: manipulation check, their willingness to engage in OCB and thwarted need to control.

4.5.3 Measures

Manipulation check. The manipulation was conducted from the same scenarios used in Study 1-1, and the manipulation check was also the five-item global breach scale (Robinson & Morrison, 2000).

Willingness to engage in OCBO & OCBI. In this study, the willingness to engage in OCBO and OCBI was measured with a 10-item scale (five items for OCBO and OCBI respectively) from Moorman and Blakely (1995). Participants were asked to report their willingness to engage in OCBO, such as "actively promote the organization's products and services to potential users", and in OCBI, such as "go out of my way to help co-workers with work-related problems" on a scale of from 1 (*strongly disagree*) to 7 (*strongly agree*). The Cronbach's α in this sample were .97 for OCBO and .96 for OCBI respectively.

Thwarted need to control. The thwarted-control scale (Zadro et al., 2010) used in Study 1-1 was used again in Study 1-2, resulting in a Cronbach's α of .86.

Control variables. For the same reasons mentioned in Study 1-1, we also controlled for the age and gender of the participants (Shore et al., 2018) in Study 1-2.

4.5.4 Analysis

Similarly to in Study 1-1, I used SPSS statistical software version 22.0 (IBM Corp, 2013) to conduct an independent-sample *t* test for the examination of the manipulation effect and the effect of breach on thwarted needs (Hypothesis 1). I tested the mediation hypothesis (Hypothesis 3) following Hayes's (2013) recommendation using a bootstrapping approach with the PROCESS procedure for testing the mediation effects in SPSS.

To examine the significance of the indirect effect of breach through a thwarted need, I estimated the indirect effects with unstandardized coefficients from the full model (i.e. the second step in the regression model) and used the bootstrapping technique to place 95% CIs around the estimates of the indirect effects (Preacher & Hayes, 2008). In line with prior studies (i.e. Ferris, Brown & Heller, 2009), I chose 1,000 times of resampling for the procedure.

4.5.5 Results

Manipulation Check. Participants in the breach condition reported significantly higher breach perception on the breach scale ($M = 3.11$, $SD = 1.22$) than did those in the control condition, ($M = 0.73$, $SD = 0.95$, $t(60) = 8.584$, $p < .001$), suggesting the valid manipulation of breach perception in the scenarios.

Breach and thwarted need to control. Table 4.3 reported mean differences between the breach and control conditions for thwarted need to control and a willingness to engage in OCB in Study 2. The first hypothesis to be examined was whether the thwarted need to control differed between the breach condition and the control condition. Participants in the breach condition reported significantly higher thwarted need to control ($M = 5.38$, $SD = 1.26$) than did those in the control condition ($M = 3.81$, $SD = 1.27$, $t(60) = 4.87$, $p < .001$). This result replicated that of Study 1.1, demonstrating that thwarted need to control was significantly increased due to a breach experience, providing additional support for Hypothesis 1.

Table 4.3. Mean Differences between Breach and Control Conditions for Thwarted need to control and A Willingness to Engage in OCBO and OCBI in Study 1-2

Condition	Manipulation check (breach perception)			Thwarted need to control		
	M	*S.D*	*p*	*M*	*S.D*	*p*
Breach	3.11	1.22		5.38	1.26	
Control	0.73	0.95		3.81	1.27	
			.00			.00

Condition	Willingness to engage in OCBO			Willingness to engage in OCBI		
	M	*SD*	*p*	*M*	*SD*	*p*
Breach	2.58	1.54		3.17	1.63	
Control	5.38	1.20		5.37	1.14	
			.00			.00

Note. Breach $n = 30$; control $n = 32$. Higher scores indicated higher breach, higher thwarted need to control or higher willingness to engage in OCBO and OCBI.

The mediating role of thwarted need to control. Hypothesis 3 proposed that thwarted need to control mediates the relationship between psychological contract breach and employees' willingness to engage in OCBO and OCBI. As shown in Table 4.4, the breach manipulation had a significant effect on thwarted need to control ($B = .55$, $R^2 = .35$, $p < .001$), the willingness to engage in OCBO ($B = -.86$, $R^2 = .72$, $p < .001$) and the willingness to engage in OCBI ($B = -.71$, $R^2 = .40$, $p < .001$). Hierarchical regression analysis showed that while controlling for age and gender, thwarted need to control significantly predicted the willingness to engage in OCBO ($B = -.61$, $p < .001$) and the willingness to engage in OCBI ($B = -.49$, $p < .001$). The inclusion of thwarted need to control significantly increased the variance explained in the willingness to engage in OCBO and OCBI by 9% (from $R^2 = .72$ to $R^2 = .81$, $p < .001$) and 13% (from $R^2 = .40$ to $R^2 = .53$, $p < .001$) respectively. To examine the significance of the indirect effect of thwarted need to control on the breach-OCB relationship, I followed Preacher and Hayes's

(2008) recommendation to estimate the indirect effects by the bootstrapping technique with 95% CIs. The results demonstrated that the indirect effect of breach on the willingness to engage in OCBO (coefficient of –.33, 95% CI [–.62, –.18]) and OCBI (coefficient of –.81, 95% CI [–1.64, –.32]) via thwarted need to control was significant. The result provided support to Hypothesis 3 that thwarted need to control mediates the negative relationship between psychological contract breach and the willingness to engage in OCBO and OCBI.

Table 4.4. Multiple Regression of The Mediation Model in Study 1-2

Variable	Thwarted need to control	Willingness to engage in OCBO		Willingness to engage in OCBI	
		Step 1	Step 2	Step 1	Step 2
Age	.01	–.02	–.01	–.00	.01
Gender	–.19	.02	–.10	–.08	– .17
Breach	.55***	–.86***	–.53***	–.71***	–.44***
Thwarted need to control			–.61***		–.49***
Total R^2	.35	.72	.81	.40	.53
ΔR^2			.09		.13

Note. Except for R^2, numbers in the table indicate unstandardized coefficients of the regression.
* $p < .05$
** $p < .01$
*** $p < .001$

4.5.6 Discussion

Study 1-2 demonstrated that the thwarted need to control mediates the relationship between breach and both employees' willingness to engage in OCBO and OCBI. Employees' thwarted need to control is a state that the perception of breach triggers.

Moreover, this state of thwarted need to control can, in turn, shape the subsequent employee willingness to engage in OCBO and OCBI. The finding in Study 1-2 responded to the suggestion that researchers should explore the role of needs in the relationship between psychological contract and employee behaviours (Conway & Briner, 2009; Meckler et al., 2003). The result of the mediation effect in Study 1-2 suggested that breach engenders a state of thwarted need to control that, in turn, shapes and influences the decrease of the willingness to engage in OCBO and OCBI, suggesting the role of thwarted need to control as the underpinning mechanism between breach and employee behaviour.

4.6 Overall discussion

In this chapter, an answer to the research question of the relevance of psychological needs to the experience of breach was sought. Across two sub-studies in this chapter, the findings affirmed the importance of integrating psychological needs into the breach process, offering a number of fresh insights. The findings revealed that employees will experience thwarted need to control after the perception of breach. In addition, a thwarted need can link breach and employee behavioural intentions: thwarted need to control mediates the relationship between breach and the willingness to engage in OCBO and OCBI.

Three sets of results arose from Study 1, and each will be discussed in turn: (a) psychological contract leading to a breakdown in the psychological need to control, (b) thwarted need to control as the linchpin connecting breach with OCB, and (c) the role of the desire for control after breach.

Psychological contract breach leads to a breakdown in psychological need to control

The first set of findings from Study 1 demonstrated the psychological consequence, namely the state of a thwarted need, occurs following a breach experience. The state of a thwarted need has been explored in negative organizational contexts, such as abusive supervision (Liana, Ferrisb, & Brown, 2012) and ostracism in the workplace (Jamieson, Harkins, & Williams, 2010). To the best of my knowledge, this study is the first empirical evidence to demonstrate that the state of a thwarted need matters in psychological contracts. To re-emphasize, human motives consist of cognition, emotion and needs (Reeve, 2009). The current literature on the mechanisms of breach-outcome relationships rely on cognitive and affective explanations, downplaying the role of needs. The introduction of a thwarted need in this chapter extends the explanatory mechanism of breach from cognitive (i.e. felt obligation) and affective (i.e. feelings of violation) factors to the inclusion of the psychological needs of employees.

Specifically, the focus of psychological need in the present study is the need to control, to which the core functions of psychological contract can serve (Shore & Tetrick, 1994). The breach of psychological contract may rupture employees' sense of control. The findings from this study empirically demonstrated that thwarted need to control—a motivational state depicting the feeling of helplessness and powerless—to be a salient response in employee psychology following a breach perception. The breach perception does matter for the innate feelings of the employees, making the employees believe that their influence in the organization is fading so as to experience a lack of sense of control.

Thwarted need to control is the linchpin connecting breach with OCB

Following the primary questions of this chapter about whether a psychological need may come into play in psychological contract breach, the findings in Study 1-2 were aimed at uncovering answers to the question of whether a thwarted need can explain the influence of breach on employee willingness to engage in positive behaviours. Results suggest that thwarted need to control can be the catalyst for employee behaviour. Specifically, the finding showed that the state of thwarted need to control can mediate the relationship between breach and the willingness to engage in OCBO and OCBI. In other words, thwarted need to control decreases OCB. When individuals have lowered their sense of control due to a breach experience, they have less willingness to perform behaviours that benefit others. The aforementioned research offers theoretical reasons for the notion of thwarted need to control as a key factor in curbing OCB. Indeed, researchers on interpersonal helping have shown that satisfying the need to control is a trigger for engaging in helping behaviour towards others (Pavey, Greitemeyer, & Sparks, 2012; Sherrod & Downs, 1974).

Overall, the crucial role that thwarted need to control plays provides an impetus in the psychological contract literature. The finding that thwarted need to control acts as the explanatory reason connecting breach to both OCBO and OCBI not only reveals an alternative mechanism for the behavioural reactions following breach but also sheds light on recent calls for greater focus on alternative motivational mechanisms in the psychological contract literature (Conway & Briner, 2009). The state of psychological

need is the fundamental explanation for why an individual can be motivated to engage in certain behaviour; the state of thwarted need offers the motivational explanation of behaviours after breach. Furthermore, the need-regulation theories (e.g. Carver & Scheier, 1982; Sheldon, 2011) can help to delineate the development process of employee behaviours by suggesting how the satisfaction of needs in organizations regulates the behaviour patterns of employees, which will then provide a clear psychological mechanism for exploring how breach has an influence on employee behaviour. This research builds the first piece of the map by showing that breach induces a thwarted need, which, in turn, may shape employee behaviours.

Furthermore, this research touches upon the early conception of psychological contracts. Levinson et al. (1962) indicated that a psychological need is the foundation of a psychological contract, as a psychological contract captures the interaction of how the organization fulfils employees' needs and how the employee fulfils the organizational needs (Levinson et al., 1962). They argued that reciprocation, the mechanism emphasized from a social exchange perspective, is "the process of fulfilling a contractual relationship in which both parties seek continuously to meet their respective needs" (Levinson et al., 1962, p. 38). Taking this research as a starting point, the early conception offers one critical notion. Instead of working as differential mechanisms, psychological needs may be one fundamental explanation for why employees reduce their felt obligation towards the organization after a breach. It is plausible that breach mitigates employees' sense of control over the situation, which then reduces employees' ability to reciprocate. This

study offered potential reasoning for addressing the interplay among mechanisms for breach.

Role of desire for control

In Study 1-1, no support was found for the predicted moderation effect of the desire for control on the relationship between breach perception and thwarted need to control. Although individuals with a higher desire for control were predicted as being more likely to have stronger reactions in terms of thwarted need to control due to higher preferred levels of control in the organization, this was not supported. The incommensurate scopes among the constructs (i.e. general desire for control versus thwarted need to control in the organization) may be responsible for such an insignificant finding. The four main constructs in the research model of Study 1 were psychological contract breach, thwarted need to control, OCB and the desire for control. The former three constructs were consistent in terms of scope, which was within the organization (i.e. breach *from the organization*, thwarted need to control *in the organization* and citizenship behaviours *in the organization*). However, the desire for control is, by definition, a motivational tendency across situations for an individual. Therefore, based on the findings in Study 1, it is likely that employees' *desire for control in general* may not fully epitomize their desire for control in the organization. Indeed, Lefcourt (1982) suggested that instead of cross-situation dispositions, researchers should use situation-specific dispositions to better predict individuals' reactions in a given context. Empirically, Logan and Baron (1987) studied the relationship between the desire for control and psychological stress for dental patients. Their results demonstrated that the *desire for dental control* can explain

significantly more variance than the *desire for health control* can. Therefore, another disposition that captures the preferred level of control in the organization, or even in the EOR, may help to further explore the relationship between breach and thwarted need to control.

4.6.1 Limitations

Some limitations should be noted in this study. One potential limitation was that given the scenario-based experiment design, no way existed to assure the external validity of the research findings. Consistent evidence was found across Study 1-1 and Study 1-2 to suggest that a psychological contract breach can trigger the state of thwarted need to control, and Study 1-2, in particular, showed that this state of thwarted need to control can further influence the willingness to engage in OCBO and OCBI. The entire study, however, provided little evidence for the employees' feelings and behaviours in the real field. Therefore, it is possible that some significant factors in the real work setting may be overlooked, and it is still unknown whether we can generalize the findings derived from this study to the workplace. However, because the core issue in this study was whether a psychological need can be an effective mechanism linking breach and employee behaviours, I believe it was justified to first test the research question with experimental design given that experimental design has been suggested as the best methodology for mechanism research (Shrout & Bolger, 2002).

Another potential limitation is the occurrence of common method bias based on the study design. All of the variables in this study were cross-sectional in nature, and all of

the collected data were only that which the participants self-reported. In this study, an attempt to balance this issue was made in one way. In Study 1-1, the fact that the desire for control and thwarted need to control were measured at two-week intervals might mitigate this issue to some extent, and especially, the participants were told that the two questionnaires were for two independent studies. That said, the data of breach perception and thwarted need to control was still collected cross-sectionally and reported by subjective rating in Study 1-1. Furthermore, in Study 2, it claimed to explore the relationship between breach and behaviours, but the collected data was actually behavioural willingness instead of actual behaviours. As suggested, a complex process exists for determining whether behavioural intention may truly translate into actual behaviours (Carrington, Neville, & Whitwell, 2010). Therefore, this study failed to answer whether the findings can hold true for employees in the work field. Finally, under the restriction of the scenario experiment, Study 2 was also limited in that the mediator and dependant variables were measured at the same time, which blurred the mediation test in terms of temporal precedence.

Third, this study did not simultaneously examine the influence of established mechanisms for the relationship between psychological contract breach and OCB. Based on the finding in Study 1, the proposed thwarted need to control seems to be a valid reason for explaining the effect of breach on both OCBO and OCBI. However, because the data of two established mechanisms (i.e. felt reciprocity and feelings of violation) were not included, I cannot examine whether this thwarted-control mechanism adds any value beyond that of the two known mechanisms. Specifically, this study did not answer three important

questions regarding how the two established mechanisms may come into play. First, if felt obligation and feelings of violation are simultaneously considered, does this thwarted-control mechanism provide a unique explanation about the relationship between breach and OCB? Second, is there any sequence for these mechanisms from breach to OCB, such that breach triggers the state of thwarted need to control, which, in turn, reduces the felt obligation and finally decreases employee OCB? Third, do individual dispositions determine which mechanism is triggered? For instance, is it possible that, for employees with high reciprocation wariness, breach is more likely to trigger a feelings-of-obligation mechanism and less likely to trigger a thwarted-control mechanism? The answers to the questions above will be important for determining whether and when these mechanisms can be additive or redundant.

4.6.2 Suggestions for future research

The main tenet of this study was to explore psychological needs as a potentially new linchpin for breach and employee behaviours, which taps into a nascent area but indeed leaves perhaps more questions than answers. Three pivotal areas exist for future research: (a) individual differences within the thwarted-control mechanism after a breach, (b) employee behaviours related to the thwarted-control mechanism, and (c) other breach outcomes via the thwarted-control mechanism.

The first area of future research pertains to exploring the notion of individual differences in the psychological need process following a perception of breach. Given the idiosyncratic nature of psychological contracts, the value of studying how individual

differences shape the reaction of breach has long been emphasized (Restubog et al., 2007; Suazo & Stone-Romero, 2011; Turnle et al., 2003). A range of individual factors that moderate the impact of psychological contract breach have been examined. As an illustration, focusing on the behavioural outcomes, it is evident that conscientiousness, empathetic concern and emotional regulation strategies weaken the negative relationship of breach with positive employee behaviours (Bal et al., 2011; Shih & Chen, 2011; Shih & Chuang, 2013), and that agreeableness, traditionality and careerism can attenuate the positive relationship of breach with negative employee behaviours (Chen et al., 2008; Gerber, Grote, Geiser, & Raeder, 2012; Jensen et al., 2010). Thus, it was important to address how individual differences can shape the process of breach and employee behaviours with the perspective of psychological need. A similar attempt was made in Study 1-1 to explore whether the desire for control may moderate the state of thwarted need to control by breach; however, the empirical results here did not offer support. Future research can examine potential moderators in these relationships, and especially, it may be very helpful to identify some individual differences that operate unconsciously, given that the motivational mechanism in nature precedes the cognitive process (Leventhal & Scherer, 1987).

Second, future research can study how breach influences employee behaviours other than OCB via a thwarted-control mechanism. As an illustration, a thwarted-control mechanism is very likely to play a role in the effect of breach on employees' proactive behaviour. Proactive behaviour is defined as "taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to

present conditions" (Crant, 2000, p. 436). To the question of what motivates proactive behaviour, Parker, Bindl, and Strauss (2010) argued control appraisal to be one of the key motives. Employees need to feel they have control in and impact on the organization so that they will believe they can engage in proactive behaviour. If breach undermines employees' sense of control, it is very likely that proactive behaviour will, in turn, be hindered because they do not believe they can make things happen in the organization. The relationship between breach and proactive behaviour has been examined in a couple empirical studies (Bal et al., 2011; Ng et al., 2014); however, the researchers did not focus on why breach influences proactive behaviour. Future research can explore how breach can shape proactive behaviour via a thwarted-control mechanism.

Finally, future research should also explore breach outcomes other than behavioural reactions with proposed thwarted-need perspectives. Such a perspective can link breach to crucial employee outcomes that have not yet been explored in the breach literature. As an illustration, EOR should be personally meaningful and serve as the medium for the employee to find meaning at work (Liu, Lee, Hui, Kwan, & Wu, 2013); nonetheless, so far, work meaningfulness has not yet been connected with psychological contract breach research. The state of thwarted need to control may help to fill this gap given that the need to control has been proposed to play a role in work meaningfulness (Rosso, Dekas, & Wrzesniewski, 2010). It was suggested that a sense of control brings meaningfulness because it reassures the individual that he or she is an active actor and is not powerless (Baumeister & Vohs, 2002). If psychological contract breach thwarts employees' need to control, it is likely that the work meaningfulness will be undermined in turn. Future

research can investigate how breach produces an impact on work meaningfulness via a thwarted-control mechanism.

4.7 Conclusion

As the first of three empirical chapters, this chapter demonstrates the potential to bring a thwarted-need perspective to the question of why psychological contract breach can shape employee behaviours. It provides empirical support for the conceptual interconnection of the psychological contracts and the psychological needs of employees, which was proposed at least half of a century ago. This study extends the current literature by confirming that psychological needs matter after the perception of a breach event. In two sub-studies with scenario-experiment design, this chapter has confirmed that the need to control is thwarted following a breach perception, and the thwarted need to control can, in turn, shape the behavioural willingness, specifically, the willingness to engage in OCBO and OCBI. This research will serve as a foundation and encourage the further exploration of how psychological needs can come into play with the psychological contract processes, inspiring more theoretical advancement of psychological contract research. To extend the value of psychological need in the breach process, the following chapter considers how this mechanism may unfold in a field setting and how the role of implicit theories can have an influence on this process.

Chapter 5:
Study 2: Psychological contract breach, psychological need and implicit theories of employee-organization relationship

5.1 Chapter Overview

The aim of this thesis is to explore how psychological contract breach and psychological needs can be integrated. Based on thwarted-need perspective, the previous chapter provides theoretical and empirical support for the idea that thwarted need to control is one explanation for the relationship between psychological contract breach and employees' willingness to engage in OCBO and OCBI. This chapter will further examine how this perspective may unfold in a field setting. In addition, the impact of individual differences has been suggested to be valuable because psychological contract is subjective and contingent on individual difference (Restubog et al., 2007; Suazo & Stone-Romero, 2011). Although previous chapter seeks to explore the role of desire for control as a potential individual disposition in the thwarted-control pathway, the findings did not support this argument. This may imply that desire for control in general fails to epitomize the desire for control in the organization. In light of this, the current chapter examines whether implicit theories, which is a situation-specific dispositions in beliefs regarding controllability (Tamir, John, Srivastava, & Gross, 2007), can impact the processes of psychological contract breach, thwarted need to control, and employees' OCBO and OCBI.

The structure of this chapter is as follows. First, Section 5.2 provides an introduction to the research framework. Second, an overview of implicit theories (Section 5.3) provides a discussion of how implicit theories can be integrated with the thwarted-need perspective of psychological contract breach. Third, the theory and hypotheses are presented in Section 5.4, followed by the presentation of the findings in Section 5.5. Finally, I discuss

this study's significance and limitations, as well as future directions related to this research (Section 5.6).

5.2 Introduction

To reiterate, a major attempt of this thesis is to integrate a thwarted-need perspective with a psychological-contract-breach perception to understand the regulatory mechanism of the relationship between breach and employee outcomes. Key to this is the gap between expected and actual states. In theory, two methods exist for construing this gap (i.e. the state of thwarted need to control): either a low level of actual control or a high level of expected control. Using a scenario study, the previous chapter discusses the former but not the latter, as it demonstrates the effects of a breach (caused by a low level of actual control) without considering individual differences (caused by varying levels of expected control).

Employees may have individual differences in the degree of thwarted need to control they experience after perceiving a breach from the organization, as individuals vary in their expected levels of control in the EOR. One of the dispositional differences that shape the expected level of control in the EOR may be an employee's implicit theories, which refers to a belief of expected controllability (Tamir et al., 2007). Based on the concept of implicit theories (Dweck, Chiu, & Hong, 1995), I propose that an employee's implicit theories of EOR as dispositional characteristics will moderate the association between breach and thwarted need to control due to varied expected levels of control in the EOR. Employees who hold a destiny and fixed view of EOR (entity theorists) will have lower expected

control compared with employees who believe that the EOR can be shaped and changed (incremental theorists), should experience less of the thwarted need to control following breach. Moreover, the consideration of implicit theories is reasonable because it operates unconsciously and thus has the potential to influence the regulation of psychological needs (Leventhal & Scherer, 1987). Therefore, I examine the moderating role of implicit theories of EOR in the relationship between breach and thwarted need to control.

This chapter's aim is to investigate employees' implicit theories of EOR with psychological contracts, and this is done by examining thwarted-need perspective of psychological contract breach. The goal is to specifically explore individual differences within the thwarted-control mechanism regarding the breach perception—in other words, why the impact of breach on thwarted need to control can be different across individuals. Figure 5.1 depicts the hypothesized empirical model for investigation. In brief, it is posited that breach triggers thwarted need to control, which, in turn, influences employees' OCBO and OCBI. Furthermore, implicit theories of EOR will moderate the relationship between breach and thwarted need to control, as well as the strength of the mediating effect of thwarted need to control between breach and OCB. Before I present the theory and hypotheses of the proposed moderated-mediation model, I start with an overview of implicit theories and discuss their applicability to understand a thwarted-need perspective and psychological contract breach.
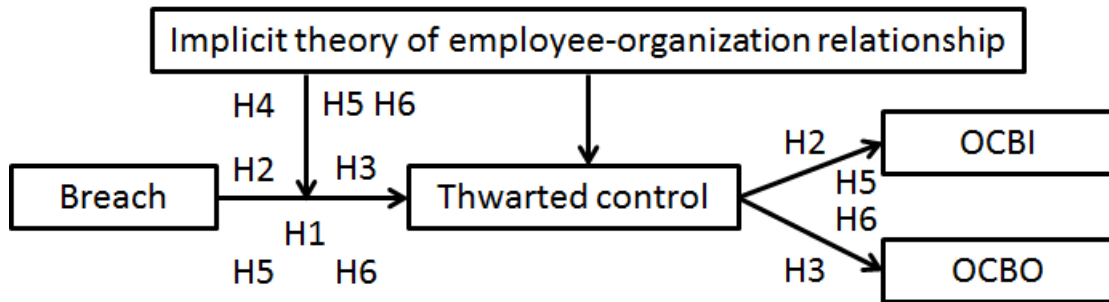
Figure 5.1. Hypothesized Empirical Model of The Moderated-Mediation Model of Psychological Contract Breach, Psychological Need and Implicit Theories of EOR.

5.3 Theoretical framework

5.3.1 Implicit theories

The concept of implicit theories can be traced back to Kelly's personal construct theory (1955), which proposed that, to understand personality, it is essential to explore individuals' mental models or basic assumptions towards the self and the social reality. Based on the idea of the personal construct theory, Dweck and Leggett (1988) further theorized that individuals possess implicit theories that can provide an analytic framework for guiding the interpretation and also facilitate reactions to the events they experience. Dweck, Chiu and Hong (1995) stated that implicit theories are considered to be dispositional and domain specific. The implicit theories of a certain attribute influence the perception and interpretation of a negative event occurs in corresponding situations. For instance, an individual's implicit theories of intelligence influence how academic failure is perceived and interpreted. However, implicit theories of intelligence are unlikely to have an effect on marital conflict, which is related to implicit theories of romantic relationships. Moreover, two types of implicit theories that one may have towards a certain attribute exist. Entity theorists of a certain attribute possess the belief that the

attribute is fixed as a trait and cannot be changed or controlled, and incremental theorists of a certain attribute believe there is more control over the attribute and that it can be shaped and changed.

Research on implicit theories first started in the field of achievement and social judgement with the implicit theories of intelligence (Hong, Chiu, & Dweck, 1995). In brief, that strand of research supported the assertion that implicit theories contribute to individuals' meaning systems, which frame their goals, attributions, evaluations, coping and interpretation in the corresponding context (Dweck, 1996; Hong, Chiu, Dweck, Lin, & Wan, 1999). To illustrate with attributions, Henderson and Dweck (1990) conducted a study on a sample of students who were about to attend junior high school. The researchers presented the students with a hypothetical failure scenario in their academic performance and asked them to make an attribution for that failure. Their findings empirically demonstrated the differences of attributions to academic failures based on different implicit theories of intelligence. For students with incremental theories of intelligence, they were more likely to make an attribution for failure to a lack of effort, whereas the students with entity theories of intelligence were more likely to believe the failure was due to their insufficient intellectual ability. Subsequently, differences in attribution was also found in implicit theories of the moral characteristic of a person. To a sample of fifth graders, Erdley and Dweck (1993) presented a slide show of a character engaged in immoral behaviours, such as lying and stealing. After the slide show, these children reported the extent to which they would describe the character in negative global traits (i.e. bad, nasty, or mean). The findings showed that, compare to the children with

incremental theory of morality, the children who hold an entity theory of morality were more likely to explain the moral failure of the character via these negative global traits.

Implicit theories have been demonstrated to have a strong effect on an individual's inferences and reactions to external events, so, not surprisingly, they have been adopted in various domains, such as emotional well-being (De Castella, Goldin, Jazaieri, Ziv, Dweck, & Gross, 2013; Tamir, John, Srivastava, & Gross, 2007), self-regulation (Job, Dweck, & Walton, 2010), education (Satchell, Hoskins, Corr, & Moore, 2017; Tam, Pak, Hui, Kwan, & Goh, 2010), sport psychology (Chen, Chen, Lin, Kee, Kuo, & Shui, 2008) and romantic relationships (Cobb, DeWall, Lambert, & Fincham, 2013; Knee, 1998). Taking emotional well-being as an example, De Castella et al. (2013) proposed that individuals have different implicit theories of personal emotion, such that entity theorists of personal emotion believe that they cannot control and shape their own emotions, whereas incremental theorists of personal emotion possess the belief that they can manage and change what emotions they experienced. De Castella et al. (2013) conducted a study on undergraduate students and found that implicit theories of personal emotions have an impact on their psychological well-being. Compared with entity theorists of personal emotions, incremental theorists of personal emotions reported higher self-esteem, higher life satisfaction, lower stress and lower depression. These relationships are further explained by the emotional regulation strategy, such that incremental theories of personal emotion have an impact on psychological well-being because they engage in more cognitive reappraisal (De Castella et al., 2013), which is an emotional regulation strategy

that can change their interpretations of events triggering negative emotions (Gross & Thompson, 2007).

Furthermore, the application of implicit theories in the organizational context is also developing, such as the discussion of how implicit theories of employees or managers may have an impact on employee performance (Tabernero & Wood, 1999), power-sharing decisions (Coleman, 2004), employee coaching (Heslin, Vandewlle, & Latham, 2006), hiring decisions (Murphy & Dweck, 2010), and employee voice (Detert & Edmondson, 2011). For instance, Tabernero and Wood (1999) suggested that implicit theories can have an impact on self-regulation and work performance during work. The focus of their implicit theories were implicit theories of ability for management, so entity theorists are those who believe that the ability to manage a group is fixed, whereas incremental theorists believe that the capacity to coordinate workers can be continually improved. In a computer simulation study where participants served as managers of a working team, the empirical findings revealed that compared with entity theorists, incremental theorists developed more self-efficacy as well as better performance in the group-management activity (Tabernero & Wood, 1999). This research provided a great foundation for investigating implicit theories in the organizational context, especially demonstrating the potential to study how employees' implicit theories may influence their self-functioning and subsequent behaviours in the organization.

With this background in mind, I will now articulate how implicit theories may come into play in the context of the EOR. Consistent with the domain-specific approach of implicit

theories, the focus of implicit theories in this chapter will be implicit theories of EOR. The implicit theories of certain domains refer to the expected controllability of them (Tamir, John, Srivastava, & Gross, 2007), so implicit theories of EOR reflect employees' expectation of how much controllability exists within the EOR. To be more specific, employees who are entity theorists may have less expectation for how much control they have over the EOR, whereas employees who are incremental theorists will be more likely to expect they should be able to control something within the EOR.

Recall from the previous chapter that psychological contract is a mental presentation of controllability, and breach of a psychological contract can be viewed as the disruption of expected controllability in the EOR. Following the focus on controllability, this thesis is going to examine whether employees with different controllability beliefs regarding their EOR (i.e. implicit theories of EOR) would vary in their interpretations and reactions when they perceive a breach in their psychological contract.

After the introduction of implicit theories and how implicit theories of EOR can connect to psychological contract breach, in the next section, I present the theoretical integration of implicit theories of EOR and the thwarted-need perspective.

5.3.2 Implicit theories of EOR and the thwarted-need perspective

In this chapter, I include the individual difference of implicit theories in the relationship between breach and thwarted need to control. Concurrent consideration of psychological contract breach, thwarted need to control, and implicit theories of EOR is important for

the following two reasons. First, they all address one fundamental psychological issue—the sense of control of the employees in their EOR. Psychological contract breach is a perception of a low sense of control, thwarted need to control is the motivational state of lacking a sense of control and implicit theories refer to the expectation of a sense of control.

Second, they respectively play an important part in the thwarted-need perspective. In the following, I briefly revisit the thwarted-need perspective before detailing the conceptual integration. Proponents of the thwarted-need perspective (Carver & Scheier, 1982; Williams, 2009) suggested that employees have a comparator to constantly monitor whether their current levels of need satisfaction matches their expected levels. A thwarted-need state occurs when the current level of need satisfaction fails to meet the expected level. Furthermore, individual differences exist in the expected level of need satisfaction (Carver & Scheier, 1982; Edwards, 1992), and these differences can shape the subsequent thwarted-need state. Employees with different expected levels of need satisfaction experience different magnitudes of thwarted states.

When breach occurs, the current state of control in the comparator mechanism falls below the expected level of control, which is essentially thwarted need to control. However, the magnitude of the thwarted state will vary across employees, as they vary in the expected level of control as a result of different implicit theories of EOR. The individual difference in implicit theories of EOR influence the degree of gap between current and expected level of control, thus contributing to the individual differences of thwarted need to control after breach perception.

By viewing implicit theories of EOR as one of the determinants for the expected level of control, the thwarted-need perspective and implicit theories can be theoretically integrated. This integration is not only theoretical in logic but also quite reasonable, for the thwarted-need perspective and the implicit theories share a common foundation regarding their antecedents. In the thwarted-need perspective, the antecedents of the expected level in the comparator include an individual's early-life experiences. Individuals form their baseline desires via their own past experiences as well as via the attitudes and beliefs they observe in their environments (Bandura, 1977; Taylor et al., 1984). This is in line with how individuals' implicit theories are derived. Offermann, Kennedy, and Wirtz (1994) suggested that the antecedents of the implicit theories of a certain domain are an individual's personal history and his or her experiences of social interaction and observed social behaviour corresponding to that domain. In the context of the EOR, employees' early working experiences and observed interactions involving other employees and organizations shape their expected levels of control in the organization; this may then become a component of their implicit theories of EOR. Therefore, it seems reasonable to anticipate that implicit theories of EOR can serve as the expected levels of control in the psychological contract breach process.

Having explained how the thwarted-need perspective and implicit theories of EOR can be integrated, in the following section, I explain how implicit theories of EOR can actually influence the relationship between breach and thwarted need to control; I also present the proposed hypotheses for this influence.

5.4 Hypotheses

5.4.1 Effect of implicit theories of EOR on breach and thwarted need to control

To examine the role of implicit theories, it is first necessary to empirically replicate the hypotheses of the previous chapter using a different methodology. To briefly revisit the theory and hypotheses discussed in the previous chapter, breach of psychological contract is a rupture in the sense of control, which triggers a state of thwarted need to control because it creates a discrepancy between the current and expected levels of control. At the same time, a sense of control is needed to motivate behaviours that benefit others (Lee & Allen, 2002; Pavey, Greitemeyer, & Sparks, 2012), such as OCBO and OCBI. Therefore, thwarted need to control may explain why breach decreases willingness to engage in OCBI and OCBI. This is examined by the following hypotheses:

Hypothesis 1: *Employees' perception of psychological contract breach will be positively related to their thwarted need to control.*

Hypothesis 2: *Employees' thwarted need to control will mediate the relationship between psychological contract breach and OCBI.*

Hypothesis 3: *Employees' thwarted need to control will mediate the relationship between psychological contract breach and OCBO.*

Next, let us move to the major question of this chapter: how can one's implicit theories of EOR have an impact on the relationship between breach and thwarted need to control? Implicit theories imply the expected controllability of something (Tamir et al., 2007), so one's implicit theories of EOR reflect the expectation of controllability of EOR. Therefore, employees who are entity theorists of EOR may have lower expectations for how much they can control, whereas employees who are incremental theorists of EOR will be more likely to expect that they should be able to control something, which shapes the expected level of control in the organization for employees. Based on this idea, it can be inferred that employees who differ in their implicit theories of EOR differ in their expected level of control, such that entity theorists have low expectations and incremental theorists have high expectations of control. Taking a quantitative example to demonstrate, assuming 50 degrees of control as the average expectation from 0 to 100 degrees, employees with strong entity theory may expect just 20 degrees of control, whereas employees with strong incremental theory may expect 80 degrees of control. When encountering a breach event which provides 0 degrees of control, the gap for entity theorists is just 20 degrees, but it is 80 degrees for incremental theorists. Therefore, given the same breach experience, entity theorists will experience a smaller gap than incremental theorists.

The idea that entity theorists experience less thwarted need to control following an experience of breach is supported for the following theoretical reasons. First, the entity theory of EOR reflects a destiny view regarding interaction with the organization (Dweck, Chiu, & Hong, 1995), implying that the employee thinks the development of EOR cannot be shaped by either party but rather is destined to be what it will be. Those who subscribe

to entity theory believe that their outcomes at the workplace are contingent more on destiny than anyone's actions. Therefore, when a breach event occurs for these employees in the workplace, they tend to view it as something that is "meant to be" and are less likely to regard it as a disruption of the contingency between what they do and what they receive, leading to weaker thwarted need to control. Conversely, individuals who subscribe to an incremental theory of EOR will experience a greater effect because they have greater expectations for contingency in their organization.

Second, the efficacy of employees who are entity theorists of EOR is less likely to fluctuate in the face of breach. Negative experiences in the organization have an impact on employees' efficacy at work; however, the magnitude of impact varies across employees because every employee has distinct informational sources for self-evaluation (Ferris et al., 2009). Similarly, Dweck and Leggett (1988) suggested that people with different implicit theories have different sources of self-evaluation. Entity theorists view the EOR as something fixed and out of their control which offers little information about how they are doing at work; therefore, they do not regard the quality of EOR as a source of self-related constructs. In contrast, incremental theorists view the EOR as something they can cultivate, and so they are more likely to regard it as a domain for efficacy evaluation. To illustrate, an employee with entity theory of EOR believes the quality of interaction with the organization is irrelevant to how well (s)he is doing at work. Therefore, when a breach is experienced, (s)he does not interpret it as a negative sign of efficacy. In this way, breach has less impact on thwarted need to control for entity theorists (versus incremental theorists).

Finally, the impact of one's implicit theories of EOR on how breach is interpreted will affect the magnitude of thwarted need to control. As elaborated in the previous chapter, the interpretation of breach as removal of choices by the organization can thwart employees' need to control. Entity theorists believe that almost all the components and outcomes of the EOR have been decided at the beginning of employment, so there is not really much choice for either party in the workplace. Therefore, choice is not a salient concern for entity theorists. Furthermore, because they are less likely to attribute a breach to an intentional outcome of the organization, they will interpret breach as something inevitable (Weiner, Perry, & Magnusson, 1988). Therefore, the thwarted need to control due to breach is mitigated for employees who are entity theorists compared to incremental theorists because entity theorists are less likely to view breach as a removal of choice by the organization.

All the reasons above suggest that breach will have a weaker relationship with thwarted need to control for entity theorists compared to incremental theorists. Thus, I hypothesize:

Hypothesis 4: *Implicit theories of EOR moderate the relationship between psychological contract breach and thwarted need to control, such that the positive relationship is weaker when employees possess an entity theory of EOR.*

To simultaneously consider both the moderating role of implicit theories of EOR and the mediating role of thwarted need to control overall, I propose a first-stage moderated-

mediation model of breach, implicit theories of EOR, thwarted need to control, and OCB. Breach will trigger a psychological state of thwarted need to control and thus prevent employees from engaging in OCBI and OCBO. Furthermore, I suggest that this psychological mechanism will be less salient for entity theorists, because they are less likely than incremental theorists to view the EOR as contingent upon their actions. I examine this moderated mediation effect with the hypotheses below:

Hypothesis 5: *Implicit theories of EOR moderate the mediation effect of thwarted need to control on the relationship between psychological contract breach and OCBI, such that the mediation effect is weaker when employees possess entity theory of EOR.*

Hypothesis 6: *Implicit theories of EOR moderate the mediation effect of thwarted need to control on the relationship between psychological contract breach and OCBO, such that the mediation effect is weaker when employees possess entity theory of EOR.*

Before I present the methods of the primary study, it is necessary to present the methods for capturing implicit theories of EOR given the absence of a measure. Because implicit theories are domain specific and the aim of this chapter is to explore implicit theories of EOR, it is necessary to first make sure there is an appropriate measure of implicit theories of EOR, so that it is possible to examine the moderated-mediation model. Based on the way Dweck, Chiu, and Hong (1995) developed a measure of implicit theories, I adapted the measure to the context of EOR. In the next section, I explain the methods for validation of the measure of implicit theories of EOR.

5.5 Methods

5.5a Validation of implicit theories of EOR

5.5a.1 Participants

To validate the measure of implicit theories of EOR, I conducted an MTurk survey with 150 full-time employees. The mean age was 36.52 ($SD = 10.11$), and 61% of the participants were male. The ethnicity of participants was as follows: European American (84%), African American (5.3%), Asian American (4.0%), Hispanic American (6.0%), and Other (0.7%). At first there were 152 respondents, but two of them were excluded from the sample because they failed to pass the validation question (i.e. "please select strongly disagree for this question and continue").

5.5a.2 Procedure

Data were gathered through the online platform MTurk. In order to validate the measure of implicit theories of EOR, the participants were asked questions regarding their current interactions with their organization. To ensure that all the participants were currently in full-time employment, a qualification procedure was adopted for the participants' recruitment. MTurk first released 1,000 short studies which included only two questions: age and employment status (full-time, part-time, unemployed, student, homemaker, and retired). The participants were informed that this was an independent survey so that they would answer honestly about their employment status. After all the short studies were completed, all eligible participants (who were employed full-time) received an email stating that they had qualified for a study with a link to the validation study. The link

directed them to the introduction page of the validation study, where respondents were able to see the name of the study and the payment offer. Based on the MTurk guideline of an hourly rate, each respondent could receive $1.50 for the survey, which was expected to take roughly 10 minutes to complete.

5.5a.3 Measures

Dweck, Chiu, and Hong (1995) developed the measure for implicit theories of morality and implicit theories of the world based on the 3-item measure of implicit theories of intelligence developed by Dweck and Henderson (1988). Following the same approach adopted by Dweck et al. (1995), I developed a measure of implicit theories of EOR. I revised the questions to fit the context of interest, in this case, EOR. The three items were "The relationship between the employee and the organization is something fixed, and it can't be changed much", "The relationship between the employee and the organization has its ingrained dispositions. It cannot be changed very much", and "There is not much that can be done to change the relationship between the employee and the organization". A high score on this measure reflects entity theorists, and a low score reflects incremental theorists. Cronbach's α was .95 for this measure in this validation study.

Following Dweck et al.'s (1995) approach, I establish the construct validity of this newly adapted measure based on its discriminant validity, convergent validity, and criterion-related validity. Below I first introduce the rationale for why certain variables were chosen for validation, and then provide the psychometric information and sample items for each

measure. All the scales used a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Discriminant Validity

I first tackled the discriminant validity of the adapted measure to examine the construct validity. Discriminant validity refers to the extent to which the measure differs from relevant measures (Hinkin, 1998). In other words, it has to be confirmed that the target measure does not overlap with any existing related measures.

There were three considerations in selecting appropriate measures to determine the discriminant validity of the adapted measure of implicit theories of EOR. First, people can hold different implicit theories regarding various domains, and the responses to certain domains are independent of any latent response set of implicit theories (Hong, Chiu, Dweck, Lin, & Wan, 1999). For example, in the study of implicit theories of morality, although the item format was pretty much the same, the factor analysis revealed that implicit theories of morality and implicit theories of intelligence are independent factors (Chiu, Dweck, Tong, & Fu, 1997). Similarly, my adapted measure of implicit theories of EOR should be differentiated from implicit theories of other domains. Therefore, the first step in assessing discriminant validity is to examine whether implicit theories of EOR are different from existing implicit theories related to other domains, such as implicit theories of intelligence, implicit theories of the world, implicit theories of morality, and implicit theories of relationships.

Implicit theories of intelligence. Implicit theories of intelligence were measured with the 3-item measure used by Dweck and Henderson (1988). A sample item is "You have a certain amount of intelligence and you really can't do much to change it". Cronbach's α was .97.

Implicit theories of the world. Implicit theories of the world were measured using the measure developed by Dweck, Chiu, and Hong (1995). A sample item is "Some societal trends may dominate for a while, but the fundamental nature of our world is something that cannot be changed much". Cronbach's α was .93.

Implicit theories of morality. Implicit theories of morality were measured by the measure developed by Chiu, Dweck, Tong, and Fu (1997). The sample item was "A person's moral character is something very basic about them, and it can't be changed much". Cronbach's α was .97.

Implicit theories of relationships. Implicit theories of relationships, which expand implicit theories from beliefs about personal attributes to beliefs about romantic relationships, were measured with the items developed by Knee (1998). A sample item is "potential relationship partners are either destined to get along or they are not". Cronbach's α was .83.

Second, following the logic of past implicit theories, researchers have suggested that it is important to make sure the measure captures a person's assumptions or beliefs rather than

his or her general esteem evaluation or presentational concerns (Dweck, Chiu, & Hong, 1995). Therefore, an implicit measure should be discriminant from variables such as self-esteem, self-monitoring, or social desirability, so it is important to include these variables for the discriminant validity examination. Furthermore, specifically for self-esteem, because my adapted measure to be validated is conceptually within the organization setting, I chose organization-based self-esteem to better fit the context of interest.

Self-monitoring. To measure self-monitoring, which is the tendency to regulate self-presentation because of desired public performance (Snyder & Gangestad, 1986), I used the 8-item scale version used by Allen, Weeks, and Moffitt (2005). A sample item is "in different situations and with different people, I often act like very different persons", and Cronbach's α was .82.

Social desirability. Social desirability was assessed using a 13-item version scale (Hays & Stewart, 1989) based on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 196). It reveals the tendency for an individual to provide socially desirable responses with questions such as "There have been times when I felt like rebelling against people in authority even though I knew they were right". Cronbach's α was .86.

Organizational-based self-esteem. Organizational-based self-esteem was assessed using the 10-item measure developed by Pierce, Gardner, Cummings, and Dunham (1989). A sample item is "I can make a difference around this organization", and Cronbach's α was .93.

Third, although they were not suggested by past research, there were two additional measures that I believed would be meaningful for examining the discriminant validity of this measure. The measure of one's implicit theories of EOR refers to the belief in whether EOR can be shaped or not, which should be differentiated from the dispositional tendency to shape the environment. Consequently, it is worthwhile to test whether it can be differentiated from proactive personality, which is a dispositional characteristic to try to take initiative in shaping current circumstances (Bateman & Crant, 1993). On the other hand, extending the aforementioned reasoning that the implicit theories of an attribute should not represent the general evaluation of it, I argue that one's implicit theories of EOR have to be distinct from one's general satisfaction with EOR quality. Perceived organizational support has been widely viewed as a core indicator of the quality of EOR, thus it is also included here for discriminant validity purposes.

Proactive personality. Proactive personality was measured with Bateman and Crant's (1993) 4-item measure. Participants were asked to state how much they agreed with statements such as "If I believe in an idea, no obstacle will prevent me from making it happen". Cronbach's α was .83.

Perceived organizational support. Perceived organizational support was measured using 8 items developed by Eisenberger et al. (2001). Participants reported how much they receive support from the organization with statements such as "the organization cares about my general satisfaction at work". Cronbach's α was .95.

Convergent Validity

Discriminant validity provides evidence regarding how a measure is different from other measures of relevant constructs. On the other hand, convergent validity would be the indicator to inform whether a measure has a similar effect to other measures assessing the same construct. However, to my knowledge, no other known measure of implicit theories of EOR exists, which makes it impossible to confirm whether this measure converges with another measure for the same construct. As suggested by Hinkin (1998), convergent validity can be demonstrated by the extent to which the measure relates to other measures of similar constructs. Implicit theories of EOR capture how much employees believe the relationship between employees and their organization can be controlled, and work locus of control (Spector, 1988) refers to how much control the employees possess in the workplace. Although they are not completely identical, both constructs overlap in capturing a sense of control in the workplace, which provides a basis for arguing that the measure of implicit theories of EOR should be significantly related with work locus of control. Therefore, here I include work locus of control as a potential measure for convergent validity.

Work locus of control. Work locus of control was measured using the Work Locus of Control Scale (WLCS) developed by Spector (1988). There are a total of 16 items in the scale, which includes both external and internal focused statements. Higher scores on this scale correspond to more external work locus of control, thus the answers for internally focused questions were reverse coded. Sample items are "if employees are unhappy with

a decision made by their boss, they should do something about it" (internal) and "the main difference between people who make a lot of money and people who make a little money is luck" (external). Cronbach's α was .92.

Criterion-related Validity

In addition to discriminant and convergent validity, criterion-related validity can also contribute to construct validity. Ferris, Brown, Berry, and Lian (2008) explained that criterion-related validity is how much a certain construct is associated with other theoretically relevant constructs. Thus, to demonstrate the criterion-related validity of this measure, I anticipate implicit theories of EOR to be closely related with intolerance of uncertainty, intention to leave, routine seeking, and request of an idiosyncratic deal based on the theoretical reasons below.

First, Dweck et al. (1995) proposed that entity theorists perceive the social world to be quite stable and predictable. Compared to incremental theorists, who believe the social world to be changing and dynamic, entity theorists tend to expect less uncertainty in social life. Therefore, I proposed that implicit theories of EOR and intolerance of uncertainty are associated, such that entity theory is positively related to intolerance of uncertainty. Second, in theorizing about implicit theories of romantic relationships, Knee (1998) suggested that entity theorists tend to test partners in the short term. If the test is not satisfactory, they move on to the next relationship easily. On the other hand, incremental theorists have more of a commitment and long-term approach within a relationship. In the same vein, within the relationship between employees and their organization, it is

reasonable to expect that entity theorists would possess higher intention to leave compared to incremental theorists. Third, deriving from the organizational change literature, routine seeking (Oreg, 2003) is one individual difference that indicates a desire for a stable life with low levels of change, which is one of the essences of entity theorists (Dweck et al., 1995). Therefore, routine seeking may be a good indicator of one's implicit theories of EOR: entity theorists are highly routine seeking, whereas incremental theorists are less routine seeking. Finally, considering the actual behaviour within the EOR, I anticipate that one's implicit theories of EOR may predict a request for an idiosyncratic deal, which is defined as the behaviour of employees to ask for personalized and customized agreements that potentially benefit themselves as well as their organizations (Ho & Tekleab, 2016; Rousseau, Ho, & Greenberg, 2006). Idiosyncratic deal by nature are an employee's exertion of control over EOR (Rousseau, 2005), which may not be easy to perform for those who believe EOR to be uncontrollable and who subscribe to entity theory in EOR. Therefore, I include requesting idiosyncratic deals as a behavioural criterion for the examination of the adapted measure of implicit theories of EOR.

Routine seeking. Routine seeking was designed to measure the personal characteristic of resistance to organizational change (Oreg, 2003). A sample item is "I like to do the same old things rather than try new and different ones". Cronbach's α was .84.

Intolerance of uncertainty. Intolerance of uncertainty was measured using the 12-item version of the intolerance of uncertainty scale (Freeston et al., 1994), which was modified and tested by Buhr and Dugas (2002). There are two dimentions in this scale, with sample

items such as "A small, unforeseen event can spoil everything, even with the best of planning" for prospective anxiety factor and "When I am uncertain I can't function very well" for inhibitory anxiety factor. Cronbach's α was .91.

Intention to leave. Intention to leave was assessed with the Seashore Turnover Intentions Scale (Seashore, Lawler, Mirvis, & Cammann, 1982), on which participants report the possibility of leaving the current job with statements such as "If I have my way, I won't be working for my current organization a year from now**.** The Cronbach's α was .79.

Requesting idiosyncratic deals. Requesting idiosyncratic deals was measured by the scale developed by Ho and Tekleab (2016). There is a total of 11 items for idiosyncratic deals for different domains, including developmental, flexibility, task, and financial aspects. Participants were instructed to answer how often (from never to always on a 7-point Likert scale) they ask for individual arrangements different from those of their colleagues, such as "skill development opportunities", "flexibility in starting and ending the workday", "special job duties or assignments", and "benefits (e.g. health benefits; vacation time)". The Cronbach's α was .96.

5.5a.4 Analysis

I tested this validation study with the commonly used SPSS Statistical Software version 22.0 (IBM Corp, 2013) for correlation analysis, as well as Mplus statistical package (Muthen & Muthen, 2012) for factor analysis (EFA and CFA). Following the procedure proposed by Christoforou and Ashforth (2015) and criteria suggested by Hinkin (1998), the correlation analysis should reveal significant correlations between implicit theories of

EOR and all the proposed variables for convergent and criterion-related validity. The correlation is expected to be negative for request for an idiosyncratic deal and positive for work locus of control, routine seeking, intolerance of uncertainty, and intention to leave. On the other hand, in the EFA models, for discriminate validity, the three items from implicit theories of EOR should load highly on their own factor and low on all other factors of implicit theories variables. The items from all the other implicit theories variables should not possess high loading on the factor of implicit theories of EOR. Additionally, I also conducted a CFA to examine whether existing implicit theories measures overlap with the newly adapted implicit theories of EOR measure and whether each measure is independent as suggested by the literature (Dweck et al., 1995).

For the EFA models, I extracted factors to compare the potential factor structures and test for uni- or multidimensionality among all items. In order to clarify the factor loading pattern and facilitate interpretation (Osborne, 2015), I used the default oblique rotation of GEOMIN and maximum likelihood estimator in Mplus. Moreover, the CFA procedure was used to confirm the measurement models using the following fit indices (Hooper, Coughlan, & Mullen, 2008). (a) Chi-square refers to the degree of discrepancy between the baseline and fitted model. The ratio of the degrees of freedom is suggested to be below or equal to 3 (Kline, 2005; Hu & Bentler, 1999). (b) SRMR refers to the discrepancy between the predicted and observed correlations. The value of this residual will be favourable if it is below 0.10 (Kline, 2005). (c) CFI refers to the incremental fit from the null model to the hypothesized model. The value of the CFI should not be less than 0.90 to claim a good model fit (Hu & Bentler, 1999). (d) TLI compares the chi-squared value

of the null model and the hypothesized model. The suggested preferable value is also no less than 0.90 (Kline, 2005). Finally, (e) RMSEA refers to the degree of fit between the population covariance matrix and hypothesized model. To indicate a good fit, a value of 0.08 or less is favourable (Browne & Cudeck, 1993).

5.5a.5 Results

I present the results for validation of the adapted implicit theories of EOR measure in the following order: discriminant validity, convergent validity, and criterion-related validity. Table 5.1 provides the factor loadings of the implicit theories of EOR and all the other implicit theories measures to test discriminant validity. As shown in Table 5.1, the factor loadings of implicit theories of EOR are clearly differentiated from all the other implicit theories measures. It is evident from this that the items of the five constructs distinctively load onto five separate factors. The lack of overlap between the items and factors offers support for the distinctiveness of the measure of implicit theories of EOR and other measures of implicit theories.

Table 5.1. Factor Loadings of Implicit Theories of EOR versus All The Other Implicit Theories Measures

	Items	F1	F2	F3	F4	F5
Implicit theories of EOR	The relationship between the employee and the organization is something fixed, and it can't be changed much.	**0.921**	0.018	0.020	-0.033	0.012
	The relationship between the employee and the organization has its ingrained dispositions. It cannot be changed very much.	**0.950**	-0.001	0.023	-0.004	0.005
	There is not much that can be done to change the relationship between the employee and the organization.	**0.919**	-0.026	-0.009	0.027	-0.010
Implicit theories of intelligence	You have a certain amount of intelligence, and you really can't do much to change it.	0	**0.985**	-0.013	-0.025	0.009
	You can learn new things, but you can't really change your basic intelligence.	0.009	**0.914**	0.077	-0.009	-0.009
	Your intelligence is something about you that you can't change much.	-0.010	**0.837**	0.038	0.109	0
Implicit theories of world	Though some phenomena can be changed, it is unlikely that the core dispositions of the world can be altered.	-0.020	0.131	**0.780**	0.048	0.016
	Our world has its basic and ingrained dispositions, and you really can't do much to change it.	0.015	-0.005	**0.961**	-0.021	-0.005
	Some societal trends may dominate for a while, but the fundamental nature of our world is something that cannot be changed much.	0.041	0.017	**0.784**	0.070	0.012
Implicit theories of morality	A person's moral character is something very basic about them, and it can't be changed much.	-0.002	-0.018	0.029	**0.978**	-0.036
	Whether a person is responsible and sincere or not is deeply ingrained in their personality. It cannot be changed very much.	-0.002	0.071	-0.007	**0.892**	0.047
	There is not much that can be done to change a person's moral traits (e.g. conscientiousness, uprightness, and honesty).	0.008	-0.006	0.043	**0.907**	0.008
Implicit theories of relationship	Potential relationship partners are either compatible or they are not.	-0.039	-0.041	0.059	-0.041	**0.908**
	A successful relationship is mostly a matter of finding a compatible partner.	-0.015	-0.054	0.110	-0.051	**0.765**
	Potential relationship partners are either destined to get along or they are not.	0.032	0.190	-0.040	0.069	**0.717**
	Relationships that do not start off well inevitably fail.	0.183	0.127	-0.088	0.103	**0.495**

Moreover, to further confirm whether the implicit theories of each domain can be differentiated from one another, I extracted from 1 to 5 factors to compare the potential factor structures and test for uni- or multidimensionality among all items from implicit

theories. Table 5.2 provides a summary of all model fit indexes. As shown in Table 5.2, the model fit results improved from a 1-factor model to 5-factor model. It indicated a better fit to the data (X^2 [$df = 50$] $= 168.85$, CFI $= .95$, TLI $= .89$, RMSEA $= .13$, SRMR $= .01$) with a 5-factor model for our implicit theories measure compared to all the other potential factor structures. These results provide evidence that implicit theories are domain specific (Dweck, Chiu, & Hong, 1995) and that the implicit theories variables addressed here do not overlap, supporting their distinctiveness. Specifically, implicit theories of EOR are distinct from implicit theories of relationships. This result justified the need for this adapted measure to understand employees' implicit theories of EOR, instead of utilizing implicit theories of relationships to capture implicit theories of EOR.

Table 5.2. Summary of Model Fit Indices in The EFA for Implicit Theories Measures

Model	Factors	X^2(df)	X^2/df	SRMR	CFI	TLI	RMSEA
1	1 factor	1424.54(104)[a]	13.70	.17	.48	.40	.29
2	2 factors	958.43(89)[a]	10.77	.11	.66	.54	.26
3	3 factors	737.43(75)[a]	9.83	07	.74	.58	.24
4	4 factors	357.88(62)[a]	5.77	.05	.88	.77	.18
5	**5 factors**	**168.85 (50)[a]**	**3.37**	**.01**	**.95**	**.89**	**.13**

In addition, I also conducted CFA to confirm the factor structure of the five implicit theories variables. Following the practice principles for interpreting CFA results proposed by Kline (2005), good model fit can be claimed when the X^2/df ratio is less than or equal

to 3.00, CFI and TFI values are higher than 0.90, and SRMR is less than 0.1. Based on these guidelines, the CFA result of the 5-factor structure revealed a good fit of the model (X^2 [df = 94] = 230.96, CFI = .95, TLI = .93, RMSEA = .01, SRMR = .06), suggesting the measure of implicit theories of EOR is independent from other implicit theories measures such as implicit theories of intelligence, the world, morality, and relationships. Overall, the evidence supports the discriminant validity of our measure of implicit theories of EOR.

After confirming the discriminant validity of the various implicit theories measures, in the next section, I examine the discriminant validity of the implicit theories of EOR. Table 5.3 provides the factor loadings of implicit theories of EOR versus theoretically relevant variables to further support discriminant validity. As shown in Table 5.3, the factor loadings of implicit theories of EOR versus all the other measures are clearly differentiated. The three items from implicit theories of EOR loaded highly on their own factor (all above 0.90) and low on all other factors (all below 0.06). Simultaneously, the items from all the other variables did not possess high loading (all below 0.21) on the factor of items from implicit theories of EOR. These results support the uniqueness of the measure of implicit theories of EOR. The distinctive pattern of the factor loading result of the implicit theories of EOR further demonstrates the discriminant validity in this validation.

Table 5.3. The EFA Factor Loadings of Implicit Theories of EOR versus Theoretically

Relevant Variables.

Construct	Item	F1	F2	F3	F4	F5	F6
Implicit theories of EOR	IMT_EOR1	**0.905**	-0.045	0.03	-0.112	-0.036	-0.009
	IMT_EOR2	**0.946**	-0.007	-0.017	-0.007	-0.035	-0.016
	IMT_EOR3	**0.909**	0.003	-0.056	0.012	0.017	0.014
Proactive personality	Proa_Per1	-0.064	**0.724**	0.119	0.067	-0.149	-0.137
	Proa_Per2	0.048	**0.591**	0.052	0.096	0.017	-0.154
	Proa_Per3	-0.012	**0.682**	-0.047	0.109	0.016	0.121
	Proa_Per4	-0.022	**0.776**	0.049	0.101	-0.038	0.037
Perceived organizational support	POS1	0.031	0.057	**0.764**	0.195	-0.023	0
	POS2	-0.207	-0.066	**0.749**	-0.029	-0.145	-0.026
	POS3	-0.194	-0.071	**0.735**	-0.028	-0.189	-0.021
	POS4	0.05	0.061	**0.836**	0.109	-0.01	-0.005
	POS5	-0.178	0.026	**0.777**	-0.018	-0.111	0.042
	POS6	-0.048	-0.073	**0.825**	0.007	0.067	0.151
	POS7	-0.207	-0.026	**0.792**	-0.051	-0.061	0.039
	POS8	0.02	0.029	**0.795**	0.053	0.093	0.033
Organizational-based self-esteem	OBSE1	0.003	0.126	0.667	**0.160**	-0.02	0.053
	OBSE2	-0.037	0.086	0.304	**0.578**	-0.057	-0.034
	OBSE3	-0.055	0.049	0.067	**0.707**	0	0.088
	OBSE4	0.036	-0.030	0.679	**0.316**	0.056	0
	OBSE5	0.067	-0.049	0.511	**0.518**	-0.02	0
	OBSE6	-0.01	0.120	0.539	**0.432**	0.05	-0.037
	OBSE7	-0.027	0.151	0.564	**0.448**	0.043	-0.017
	OBSE8	-0.029	-0.078	0.112	**0.711**	-0.094	0.083
	OBSE9	-0.046	0.057	0.049	**0.684**	0.006	0.099
	OBSE10	0.037	0.158	0.606	**0.305**	0.087	0
Self-monitoring	Self_Moni1	0.017	0.368	0.042	-0.119	**0.439**	0.124
	Self_Moni2	0.024	0.004	0.085	-0.128	**0.611**	-0.022
	Self_Moni3	-0.023	0.303	-0.027	-0.151	**0.511**	0.128
	Self_Moni4	0.019	-0.198	-0.028	0.109	**0.752**	-0.167
	Self_Moni5	-0.078	-0.245	-0.091	0.044	**0.719**	-0.131
	Self_Moni6	-0.014	0.186	-0.019	-0.091	**0.449**	0.045
	Self_Moni7	0.047	0.173	0.051	-0.166	**0.542**	-0.014
	Self_Moni8	-0.049	-0.056	0.036	0.062	**0.673**	-0.176
Social desirability	Soc_Desi1	-0.053	0.257	-0.043	0.012	-0.119	**0.523**
	Soc_Desi2	0.012	0.132	0.196	-0.136	0.044	**0.757**
	Soc_Desi3	-0.089	0.349	-0.004	0.02	-0.03	**0.551**
	Soc_Desi4	0	0.045	0.048	0.069	-0.04	**0.694**
	Soc_Desi5	0.016	0.127	-0.104	0.16	0.032	**0.525**
	Soc_Desi6	-0.067	-0.123	-0.15	0.15	-0.167	**0.504**
	Soc_Desi7	0.166	-0.023	-0.187	0.219	-0.08	**0.429**
	Soc_Desi8	-0.126	-0.342	0.123	0.08	-0.06	**0.623**

Soc_Desi9	0.021	-0.083	-0.056	0.256	0.136	**0.573**
Soc_Desi10	0.071	-0.041	0.059	-0.101	0.15	**0.296**
Soc_Desi11	0.058	0.028	0.124	-0.134	-0.032	**0.639**
Soc_Desi12	0.063	0.005	0.076	-0.076	0.008	**0.701**
Soc_Desi13	-0.029	-0.215	0.025	0.033	0.121	**0.305**

Next, for the convergent and criterion-related validity, there will be a significant correlation between implicit theories of EOR and the chosen variables, namely work locus of control, routine seeking, intolerance of uncertainty, intention to leave, and request for an idiosyncratic deal. Table 5.4 provides the descriptive statistics, correlations, and reliabilities between implicit theories of EOR and other variables for convergent and criterion-related validity. As shown in Table 5.4, implicit theories of EOR were significantly and positively correlated with work locus of control ($r = .35$, $p < .01$), routine seeking ($r = .19$, $p < .05$), intolerance of uncertainty ($r = .23$, $p < .01$), and intention to leave ($r = .30$, $p < .01$). These significant relationships provide good evidence for the convergent and criterion-related validity of the adapted implicit theories of EOR measure. However, no significant relationship was found between implicit theories of EOR and request for an idiosyncratic deal as proposed ($r = .03$, *n.s.*). This result suggests that the belief of controllability in EOR does not seem to relate to actual behaviour to exert control over the EOR.

Table 5.4. Descriptive Statistics, Correlations, and Reliabilities between Implicit Theories of EOR and Variables for Convergent and Criterion-Related Validity.[a]

	Variable	*M*	*SD*	1	2	3	4	5	6
1	Implicit theories of EOR	3.11	1.47	-					
2	Work locus of control	3.27	1.02	.35**	-				
3	Routine seeking	3.98	1.25	.19*	.24**	-			
4	Intolerance of uncertainty	3.97	1.15	.23**	.32**	.65**	-		
5	Intention to leave	3.94	1.67	.30**	.49**	.04	.12	-	
6	Request idiosyncratic deals	2.48	1.39	.03	-.03	−.01	.15	−.06	-

Note. EOR, employee-organization relationship.
[a] *n = 150.*
* *p < .05*
** *p < .01*

To summarize, the result of the factor analysis confirmed the distinctiveness between the adapted measure of implicit theories of EOR and the other implicit theories measures. Furthermore, the correlation analysis demonstrated that the measure was significantly related to the theoretically relevant variables. All these results provided strong evidence of discriminant validity, convergent validity, and criterion-related validity, which supports the construct validity of this adapted measure. That said, one of the proposed variables, request of an idiosyncratic deal, did not reveal a significant relationship with the measure of implicit theories of EOR. This was the only non-significant finding, and request of an idiosyncratic deal was also the only behavioural measure in the examination of criterion-related validity. One possible explanation for this may be the complexity of understanding individual behaviour based on employees' cognitive disposition (Ajzen, 1985). Rather than the actual requesting behaviour which I tried to capture, it is likely that implicit theories of EOR are correlated with the intention to request an idiosyncratic deal. Therefore, I believe the non-significant result between implicit theories of EOR and request of idiosyncratic deal does not impose a great risk for criterion-related validity, and

this 3-item measure of implicit theories of EOR should be appropriate for further studies because of the good profile of construct validity in this validation study.

Having examined the validity of the adapted measure of implicit theories of EOR, I included it in the study for the hypothesis testing of the proposed moderated-mediation model. I shall now turn to introducing the methodology and presenting the results of the empirical research in this chapter.

5.5b Field study with employee-supervisor dyads

5.5b.1 Participants

Study 2 collected supervisor–subordinate dyad data to control for the potential common method variance (CMV; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The participants included 164 subordinates and their immediate supervisors in Tainan city, Taiwan. There were 25 stores from different companies in the service industry agreed to participate in this study, and the total number of respondents from each of the 25 stores was between 2 and 16 (average 7 respondents). With the help of 114 supervisors, surveys were distributed to a total of 228 subordinates at Time 1, and 179 subordinate surveys were received. Supervisor surveys were sent out to supervisors who had at least one subordinate who had completed the Time 1 survey. 85 supervisors completed the survey at Time 2, and a total of 164 supervisor–subordinate dyad (72.0% female; age, $M = 30.13$, $SD = 6.90$) surveys were finally obtained and employed in later analysis. The average tenure of the participants was 7.12 years ($SD = 6.10$), and 93.3% of the participants possessed at least a bachelor's degree.

5.5b.2 Procedure

The supervisors who agreed to help with this study were asked to randomly select 2 of their immediate subordinates. At Time 1, two copies of subordinate surveys were sent to each supervisor. After one week, the supervisor received a reminder call to make sure the surveys were received and distributed to the selected subordinates. To increase confidentiality, the subordinates returned their completed surveys by themselves directly by post, so that the supervisors did not have access to the completed surveys of their subordinates. At Time 2, six weeks after the subordinate surveys were collected, a survey was sent out to the supervisor. At Time 1, subordinates reported their psychological contract breach, implicit theories of EOR, and thwarted need to control, and at Time 2, supervisors provided the ratings of OCBI and OCBO for their subordinates who had completed the Time 1 survey.

5.5b.3 Measures

Psychological contract breach. The same measure (Robinson & Morrison, 2000) used in the previous chapter was used in this study to measure psychological contract breach (ranging from 1, *strongly disagree*, to 7, *strongly agree*), with a Cronbach's α of .91.

Thwarted need to control. The thwarted-control scale (Zadro et al., 2010) used in the previous chapter was used again, with a Cronbach's α of .80.

OCBs. The OCBs scale (Moorman & Blakely, 1995) was the same as the one I used in the previous chapter. Recall that in the previous chapter, due to the experimental design, respondents' willingness to engage in OCBO and OCBI was measured. In Study 2, I asked the supervisors to report their objective observation on the extent to which a particular employee actually engaged in OCBI and OCBO. Cronbach's α was .94 for OCBO and .91 for OCBI in Study 2. The intraclass correlations for OCBI and OCBO in this study were .13 and .55 respectively, which justified controlling the random intercept effect in our analysis in the next section (James, 1982).

Implicit theories of EOR. The measure of implicit theories of EOR that was validated in Section 5.3 was used here. A sample item is "the relationship between the employee and the organization has its basic and ingrained dispositions, and it is something you cannot change". The high score of this measure reflects entity theorists, and the low score of this measure reflects incremental theorists. Cronbach's α in this study was .93.

Control variables. Similar to the previous chapter, I controlled for age and gender of the employees (Shore et al., 2018).

Similar to Study 1, based on the procedure of translation back-translation Brislin (1970), the questionnaire items distributed to the participants were translated in Mandarin by two Mandarin speakers who were PhD Candidates in the UK.

5.5b.4 Analysis

Before I started to directly examine the proposed hypotheses, I conducted CFAs of all the variables (psychological contract breach, thwarted need to control, implicit theories of EOR, OCBI, and OCBO). I used Mplus (Muthen & Muthen, 2012) with the estimator of WLSMV to examine the measurement model. This demonstrates whether the measured variables are distinct from each other.

Next, for the examination of the moderated-mediation model, with the exception of gender, which is a dummy variable (0 = female, 1 = male), all predictors in the model were grand-mean centred to avoid issues of multicollinearity (Aiken & West, 1991). Because OCBI and OCBO, the focal outcome variables in Study 2, are nested in supervisors and non-independent, in order to control for the supervisors' rating effect, a series of random intercept models was used to test the hypotheses. I performed these moderated regression models with mixed modelling in SPSS Statistical Software version 22.0 (IBM Corp, 2013).

For the moderation of implicit theories (H4), in addition to the multiple regressions, I also test the interaction pattern by performing a simple slope analysis to facilitate the interpretation. I used one and two standard deviations above or below the mean (Aiken & West, 1991) of implicit theories of EOR to indicate entity theorists or incremental theorists.

Finally, for the moderated-mediation hypotheses (H5 & H6), following Tofighi and MacKinnon's (2011) guideline, I estimated conditional mediation effects by computing the confidence interval (CI) for entity and incremental theorists respectively. I tested the moderated mediation hypotheses at two SDs above and below the mean to demonstrate the moderated-mediation effect.

5.5b.5 Results

Measurement model. I first tested a five-factor model, in which I included psychological contract breach, thwarted need to control, implicit theories of EOR, OCBI, and OCBO. The model yielded acceptable fit to the data (WLSMV-$\chi2$ (220) = 548.26; RMSEA = .095; CFI = .98; TLI = .98). This five-factor model is better than alternative models, including a single-factor model (WLSMV-$\chi2$ (230) = 2698.72; RMSEA = .256; CFI = .84; TLI = .83) and a two-factor model in which items rated by employees and the OCBI and OCBO items rated by supervisors were influenced by two factors (WLSMV-$\chi2$ (229) = 1505.60; RMSEA = .184; CFI = .92; TLI = .91). These CFA results support the discriminant validity of the studied variables.

Below I start to examine the hypotheses in this chapter. Table 5.5 presents descriptive statistics of variables in Study 2, and Table 5.6 presents the results of multiple regression models.

Table 5.5. Descriptive Statistics, Correlations, and Reliabilities of Study 2 (N = 164)

	Variable	Mean	SD	1	2	3	4	5	6
1	Gender (0 = female, 1 = male)	0.28	0.45						
2	Age	30.13	6.90	0.00					
3	Breach	2.57	1.11	0.12	0.06				
4	Implicit theories of EOR	3.99	1.52	0.12	-0.09	0.29***			
5	Thwarted need to control	3.39	1.00	-0.17*	0.03	0.48***	0.39***		
6	OCBI	5.51	0.98	-0.20**	0.11	-0.19*	-0.17*	-0.24**	
7	OCBO	5.32	1.10	-0.20**	-0.08	-0.51**	-0.17*	-0.35**	0.59**

* *p* < .05
** *p* < .01
*** *p* < .001

Table 5.6. Multiple Regression Model for Study 2 (N = 164)

| Variable | Thwarted need to control | | | | OCBI | | | | OCBO | | | |
| | Model 2-1 | | Model 2-2 | | Model 2-3 | | Model 2-4 | | Model 2-5 | | Model 2-6 | |
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Intercept	3.54	0.08	3.58	0.08	5.64	0.10	5.66	0.10	5.42	0.10	5.44	0.10
Gender	−0.55***	0.14	-0.50***	0.14	−0.41*	0.16	0.50**	0.16	−0.32*	0.15	−0.41**	0.15
Age	0.00	0.01	0.00	0.01	0.11	0.01	0.01	0.01	0.00	0.01	0.00	0.01
Breach	0.37***	0.06	0.42***	0.06	−0.09	0.06	−0.01	0.07	−0.42***	0.07	−0.33***	0.07
IMT	0.21***	0.04	0.22***	0.04	—	—	—	—	—	—	—	—
Breach × IMT			−0.13***	0.03	—	—	—	—	—	—	—	—
Thwarted need to control							−.19*	.08			−0.20**	0.07
−2 restricted log likelihood	389.25		375.73		425.72		419.73		419.89		412.23	
Residual	.541		.439		.489		.488		.441		.416	
Pseudo R^2			.034				.014				.018	

Note. IMT, Implicit theories of EOR.
$* p < .05$
$** p < .01$
$*** p < .001$

Breach and thwarted need to control. In Model 2-1, I first predicted thwarted need to control using psychological contract breach and control variables, and I found that breach had a positive effect ($b = 0.37$, $p < .001$) and gender had a negative effect ($b = -0.55$, $p < .001$) on thwarted need to control. Therefore, Hypothesis 1 received strong support and it replicated the finding in the previous chapter. Before I move to Model 2-2, which tested the main hypotheses of the moderating role of implicit theories, I present model 2-3 to 2-6 first to depict the mediating role of thwarted need to control between breach and OCB, in order to examine whether the pattern of results from the previous chapter can be replicated.

Mediating role of thwarted need to control. In Model 2-3, I predicted OCBI using psychological contract breach and control variables, and found that gender is a negative predictor ($b = -0.5$, $p < .01$). In Model 2-4, I also included thwarted need to control and found it to negatively predict OCBI ($b = -0.19$, $p < .05$), providing support for H2. Similarly, I used psychological contract breach and control variables to predict OCBO in Model 2-5 and found that breach ($b = -0.33$, $p < .001$) and gender ($b = -0.41$, $p < .01$) are negative predictors. Next, thwarted need to control was included in Model 2-6, and it revealed that thwarted need to control ($b = -0.20$, $p < .01$) can negatively predict OCBO, providing support for H3. These findings replicated the mediating role of thwarted need to control in the previous chapter.

Moderating role of implicit theories. For the moderating role of implicit theories, based on Model 2-1, I additionally included implicit theories and the interaction term with

psychological contract breach in Model 2-2. Gender ($b = -0.50$, $p < .001$), breach ($b = 0.42$, $p < .001$), and implicit theories ($b = 0.22$, $p < .001$) were each significant predictor, and I also found the interaction term to be significant ($b = -0.13$, $p < .001$) in predicting thwarted need to control. The association between breach and thwarted need to control was significantly positive (simple slope = .619, $p < .001$ and .817, $p < .001$ for 1 *SD* and 2 SDs below the mean, respectively) for incremental theorists, and less or not significant (simple slope = .221, $p < .01$ and .023, n.s. for 1 *SD* and 2 *SD*s above the mean, respectively) for entity theorists, supporting H4. Figure 5.2 presents the interaction graph.

Figure 5.2. Interaction Plot of Implicit Theories of EOR and Breach in Predicting Thwarted need to control in Study 2
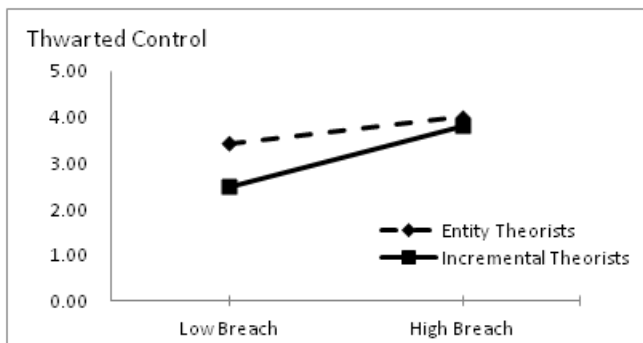
The moderated-mediation model. Finally, regarding the conditional mediation effect, for OCBI, thwarted need to control had a significant mediation effect for incremental theorists (conditional mediation effect = –.155, PRODCLIN: 95% CI [–.291, –.027]) but not for entity theorists (conditional mediation effect = –.004, PRODCLIN: 95% CI [–.033, .021]). Similarly, for OCBO, thwarted need to control had a significant mediation effect for incremental theorists (conditional mediation effect = –.163, PRODCLIN: 95% CI [–.284,

–.050]) but not entity theorists (conditional mediation effect = –.005, PRODCLIN: 95% CI [–.033, .021]). These results provided support to H5 and H6.

5.6 Discussion

This chapter presents the first field investigation of the need mechanism of psychological contract breach, as well as setting out to validate the adapted measure of implicit theories of EOR. This study sought to answer the following questions: Do individual differences have an impact on the need mechanism of psychological contract breach? Can the thwarted-need perspective explain employees' actual behaviour in a field setting? The findings from this study offer some insights in response to these questions. Three main findings arise from this study, and each will be discussed in turn: (a) implicit theories of EOR shape the effect of breach on thwarted need to control, (b) implicit theories of EOR have an impact on the thwarted-control mechanism, and finally (c) this corroborates evidence of thwarted-control mechanism in the field.

Implicit theories of EOR shape the effect of breach on thwarted need to control
The present study addresses the role of individual differences in the relationship between psychological contract and thwarted need to control. Specifically, the individual difference of relevance here derives from the level of need satisfaction (Carver & Scheier, 1982; Edwards, 1992). This study argued that an employees' implicit theories of EOR can shape the effect of breach on thwarted need to control because employees' implicit theories indicate their expected level of control in the EOR. The empirical findings offer support for this argument, such that compared to incremental theorists, entity theorists

possess a lower expected level of control, experience a smaller gap between the expected level and actual level of control, and thus react less negatively to breach in terms of thwarted need to control.

Consideration of implicit theories of EOR makes two theoretical contributions to our understanding of psychological contract breach. First, although social exchange (Blau, 1964) is the dominant theory to explain the consequences of psychological contract breach, it is limited in depicting when and why this mechanism may be stronger or weaker across employees. By conceptualizing implicit theories as the individual difference in the expected level of control, it demonstrates that the thwarted-need perspective is a theory that simultaneously captures the underlying mechanism as well as the reason for individual difference in the psychological contract breach process. This makes the thwarted-need perspective of breach not only an alternative mechanism for unpacking the impact of breach, but also a unique theory to explain when and why there will be differential impacts among employees after a breach perception.

Second, by examining how implicit theories can be linked to psychological contract breach, this study responds to one of the ongoing calls for research on how personal characteristics shape the reaction to breach. Given the idiosyncratic nature of the psychological contract, the value of studying how individual difference shapes the reaction to breach has long been emphasized (Restubog et al., 2007; Suazo & Stone-Romero, 2011; Turnle et al., 2003). Research in this strand has identified a range of individual factors that shape the impact of psychological contract breach, such as age (Bal

et al., 2008), gender (Blomme, van Rheede, & Tromp, 2010), Machiavellianism (Zagenczyk et al., 2013), agreeableness (Jensen et al., 2010), conscientiousness (Orvis et al., 2008), self-control (Bordia et al., 2008), time perspective (Bal, de Lange, Zacher, & Van der Heijden, 2013), empathetic concern (Shih & Chen, 2011), hostile attribution style (Chiu & Peng, 2008), and emotional regulation strategy (Bal et al., 2011). In brief, extant research on individual differences in breach impact has focused on demographics, personality traits, or coping style, without articulating the importance of belief system of employees. Furthermore, all the individual factors above are general dispositions that function across contexts, so domain-specific individual differences are under-examined in the breach process. Thus, by studying implicit theories of EOR, the present study provides nascent knowledge about how employees' domain-specific beliefs about EOR can contribute to the individual difference in reaction to psychological contract breach.

The impact of implicit theories of EOR on the thwarted-control mechanism

The thwarted-need perspective can also explain why the thwarted-control explanation that links breach to OCB is stronger or weaker for some employees. By theorizing implicit theories as one of the determinants of expected control for employees, the present study empirically demonstrated that the thwarted-control mechanism between breach and OCB is more salient for incremental theorists than for entity theorists. Employees, who believe EOR is a fixed entity, will be less likely to decrease their OCB through the state of thwarted need to control following a breach perception,. The thwarted-need perspective makes it possible to explain why OCB is reduced and, at the same time, whose OCB is reduced after breach. As stated by Meckler et al. (2003), only when psychological needs are integrated into a psychological contract process can an employee's motivation and

behaviour be adequately explained.

The findings of this chapter may make a contribution to explain the mixed empirical findings between breach and OCBI. Specifically, this study suggest that the neglect of individual dispositions may be the reason for the mixed findings. The significant effect of implicit theories of EOR on the thwarted-control mechanism demonstrates the importance to identify boundary conditions – who the employee is – in the relationship between breach and OCBI. The implicit theories of EOR which the employee hold can influence whether they reduce their OCBI following psychological contract breach. The findings from the present study suggested that more knowledge for the relationship between breach and OCBI should be revealed when individual or even contextual factors are taken into consideration.

Corroborating evidence of thwarted-control mechanism in the real field

Finally, the findings from the present study provide additional support for the findings of Chapter 4. The experiment design used in Chapter 4 was necessary because experimental design has been said to be the best choice when researchers strive to explore psychological pathways of behaviours (Shrout & Bolger, 2002). Based on the scenario experiment, Chapter 4 empirically demonstrates that psychological contract breach leads to a breakdown in psychological need to control, and thwarted need to control is the linchpin connecting breach and willingness to engage in OCB. However, a major limitation in the previous chapter is the lack of generalizability due to experimental design, which the present study aims to amend. The present study extends these findings by examining the

same mechanism from dyad data of employees and supervisors in a real workplace context. Specifically, the present study extends the findings of the previous chapter in three ways.

First, the finding of this study replicates in a filed setting what was demonstrated in the scenario experiment of the previous chapter – psychological contract breach triggers thwarted need to control. This finding responded to the major question in this thesis and also makes an important contribution to the psychological contract literature. Based on social exchange theory, the extant research related to the psychological contract breach has accumulated a wealth of evidence over the years, suggesting that breach reduces reciprocity in EOR (e.g. Coyle-Shapiro & Conway, 2005; Coyle-Shapiro & Kessler, 2000). Findings from the present study indicate that psychological contract breach goes beyond reciprocity in EOR and that it actually impairs the regulatory functioning of employees. In other words, psychological contract breach not only triggers employees' doubts regarding their reciprocal exchange with the organization, but also induces employees' regulatory threat (e.g. loss of sense of control) in the organization. This finding highlights the importance of employees' self-regulation after breach perception in EOR, in accordance with the suggestion that self-regulation is required to maintain a relationship, especially when there is a potential threat occurring in the relationship (Downer & Feldman, 1996).

Second, regarding whether thwarted need to control connects breach and OCB, the findings here extend those found in the previous chapter by demonstrating that psychological contract breach triggers thwarted need to control that in turn leads to lower

OCBI as reported by employees' supervisors. In the scenario-based study designed in the previous chapter, only the willingness to engage in OCB could be studied, leaving the actual OCB undiscovered. The present study improved this issue by analysing the supervisor-rated OCBs to allow for discussing the actual behaviour of employees. The finding of the present study suggests that thwarted need to control is a crucial mechanism linking breach and employees' OCB. Moreover, the thwarted-control mechanism holds true for both OCBI and OCBO, which offers a twofold contribution to the literature on breach and OCB, as discussed below.

For OCBO, given the well-documented research on breach and OCBO (Chen et al., 2008; Lo & Aryee, 2003; Robinson, 1996) and the idea that employees rebalance detrimental treatment received with a decrease of OCBO, this study offers a supplementary mechanism to underpin this process. In addition to reciprocity, the role of thwarted psychological need, especially need to control, can be one explanatory mechanism between breach and OCBO. On the other hand, with regards to OCBI, the target similarity model (Lavelle. Rupp, & Brockner, 2007) suggested that employees should direct their reciprocation towards the target of harm, so employees should reciprocate by reducing OCBO rather than OCBI. This study offers both a theoretical rationale and empirical evidence for why OCBI can be negatively affected and why the target similarity model may not always be true. The relation between breach and OCBI may not always reflect reciprocation of detrimental treatment, and it may be about the impairment of the regulatory function because of the detrimental treatment of employees.

5.6.1 Limitations

Although the hypotheses were supported, there are several limitations of the present study that prevent me from drawing a cogent conclusion. First, psychological contract breach and thwarted need to control were measured at the same time, which does not permit the elimination of common method bias due to cross-sectional data such as artifactual covariance that is irrelevant to the measured constructs (Podsakoff et al., 2003). Due to the limitations of a cross-sectional investigation, this study lies open to criticism of same-time bias, leaving the direction of predictions unclear. Therefore, although theoretically I argue that the perception of breach triggers thwarted need to control, there is no way to exclude the alternative argument that those employees who experience thwarted need to control in the organization will then perceive higher psychological contract breach. Of course, the scenario-based experiment in the previous chapter demonstrated that breach indeed precedes thwarted need to control, but this should also be confirmed in a field setting. Therefore, a time-lag design that separates the measurements of psychological contract breach and thwarted need to control, preventing common method bias, is needed to strengthen the proposed direction of prediction.

It should be noted, however, that I have not yet examined whether the thwarted-control mechanism makes a unique contribution relative to mechanisms (e.g. felt obligation and psychological-contract violation) that have been identified based on social exchange theory (Blau, 1964) and affective-event theory (Weiss & Cropanzano, 1996). The evidence from this and the previous chapter offers convergent support that the thwarted-need mechanism plays a role after psychological contract breach, but leaves the following

questions unanswered: Does thwarted need to control overlap with reciprocity or psychological contract violation? Is there any unique contribution from considering thwarted need to control if reciprocity and violation have been studied? For instance, Thau, Aquino, and Poortvliet (2007) suggested that the thwarted-need perspective indeed goes beyond social exchange based on the empirical finding that the state of thwarted need explains unique variance in employee behaviour over and above organizational justice and trust. It would serve to strengthen the importance of psychological needs for psychological contract research if it could be demonstrated that thwarted need to control explains additional variance in OCB beyond that accounted for by felt obligation and violation.

Third, based on the suggestion that the thwarted need to control is influential, I have not excluded the potential impact of other prominent psychological needs. The focus on a certain type of psychological need is very common in the field of psychological need research, given that certain psychological needs usually emerge as more prominent in different contexts of interest (Edmunds, Ntoumanis, & Duda, 2006; Gunnell et al., 2013; Jamieson, Harkins, & Williams, 2010). As an illustration, in the research field of athlete psychology, the need for competence was the salient psychological need that was found to best predict athlete behaviour (Edmunds et al., 2006). Similarly, it is very reasonable to concentrate on employees' need to control for breach research because the core function of the psychological contract is to offer predictability and controllability. However, one can still argue that alternative psychological needs may also be as important as the thwarted-need mechanism in relation to breach. To illustrate, a sense of belonging has

been said to be one of the inducements from the organization to bring employee's contribution in the psychological contract, which offers the potential to also investigate the need to belong (Baumeister & Leary, 1995). The need to belong is a pervasive need to form and maintain interpersonal relationships, and it is characterized by stability, affective concern, and continuation into the foreseeable future (Baumeister & Leary, 1995). Perception of psychological contract breach could decrease one's evaluation of stability, affective concern, and foreseeability of the future of EOR, all of which would in turn thwart the need to belong. The simultaneous consideration of thwarted belonging in the breach process will be important to clarify whether thwarted need to control is as unique as Chapter 4 and Chapter 5 have suggested.

5.6.2 Suggestions for future research

In addition to tackling the psychological need mechanism, as Chapter 4 has done, the present study contributes to a nascent area of psychological contract breach by introducing implicit theories of EOR, and clearly more research is needed to expand the understanding of how implicit theories can influence employees' experience in their EOR. First, I believe a primary area for future research is to delve deeper into the various ways that an employee's implicit theories of EOR may influence the psychological contract. In the present study, I demonstrate the impact of implicit theories as a moderator of the impact of breach, but there are at least two directions in which the research can push forward. On the one hand, as an individual difference, it is very likely it can actively influence the breach perception itself. It has been empirically tested that individual differences such as self-esteem, equity sensitivity, positive affectivity, and negative affectivity can

significantly predict psychological contract breach (Shih & Chuang, 2013; Suazo & Turnley, 2010) because they influence the interpretation of social information in the EOR. Implicit theories are influential in how individuals interpret social information (Dweck et al., 1995), thus it is very reasonable to anticipate that one's implicit theories of EOR can also shape one's breach perception through different interpretations of social information.

One the other hand, in addition to breach, future studies may also investigate whether implicit theories of EOR start to play a role early in the formation stage of the psychological contract. A number of dispositional factors, such as individualism (Zhao & Chen, 2008), equity sensitivity (Zhao & Chen, 2008; Raja et al., 2004), and locus of control (Raja et al., 2004), have been shown to influence the type of psychological contract which employees will develop. For instance, employees who have higher equity sensitivity are outcome oriented and value receiving tangible extrinsic rewards; therefore, they facilitate the development of transactional psychological contracts (but not relational psychological contracts; Raja et al., 2004; Zhao & Chen, 2008). Future research can also unpack how implicit theories of EOR can determine the formation of the psychological contract.

A second area of future research could examine further the role of implicit theories in other EOR constructs. As the first theoretical and empirical examination of implicit theories in the EOR context, the present study manifests how implicit theories can be influential for employees' psychological contract process. Therefore, it should be legitimate to argue that implicit theories of EOR can interplay with other EOR constructs. To reiterate an aforementioned argument in the validation study, requesting idiosyncratic

deals is a way for employees to exert control over EOR (Rousseau, 2005), so employees'

intention of requesting idiosyncratic deals should be contingent on their implicit theories

of EOR. Furthermore, the development of an exchange relationship such as an economic

or social exchange (Shore, Tetrick, Lynch, & Barksdale, 2006) can be contingent on the

sense of controllability. Song, Tsui, and Law (2009) have empirically found that when

employees are expected to obey standard working procedures and regulations without

much decision-making, they are more likely to develop economic exchange. Employees

with different implicit theories of EOR possess differential controllability beliefs, thus

there is foundation to investigate whether entity theorists and incremental theorists are

inclined towards different types of exchange relationships. In brief, the belief regarding

controllability should be a prominent issue in EOR, and the integration of employees'

implicit theories may bring fruitful results in the research on EOR.

5.7 Conclusion

This study replicates the findings in the previous chapter of this thesis, supporting the idea

that breach thwarts control of employees. Also, the present study is one significant step

towards a theoretical framework to simultaneously explain why and when psychological

contract breach matters. Based on the thwarted-need perspective, the finding of this

chapter was that thwarted need to control serves as the mechanism from breach to OCBI

and OCBO, and the influence is actually contingent on individual differences such as

implicit theories of EOR. Given this understanding, and in fulfilling the research aims of

this thesis in answering how unique the thwarted-need mechanism of psychological

contract breach is, in Chapter 6, I examine whether thwarted need goes beyond other alternative mechanisms such as social exchange and affective event theory.

Chapter 6:
Study 3: Exploring the uniqueness of thwarted need to control in the breach-OCB relationship

6.1 Chapter Overview

Chapter 4 demonstrates the potential of thwarted need to control as the need mechanism underlying the relationship between breach and employee behaviours, and Chapter 5 reveals why and how individuals experience different degrees of thwarted need to control following a contract breach. In brief, previous chapters suggest that the thwarted-need perspective plays a pivotal role in the process of psychological contract breach. Following the previous chapter's exploration of whether a thwarted-control mechanism is valid in the context of psychological contract breach, this chapter aims to address whether this mechanism adds a unique contribution to the established theoretical underpinnings (e.g. social exchange and affective-event theories). This chapter presents an empirical investigation of multiple explanatory mechanisms of psychological contract breach to examine (a) whether a thwarted-control mechanism makes a unique contribution relative to previously identified mechanisms and (b) whether a thwarted-control mechanism explains the reason breach reduces felt obligation and triggers the feelings of violation for employees.

6.2 Introduction

To understand the impact of psychological contract breach, social exchange theory (Blau, 1964) and affective events theory (Weiss & Cropanzano, 1996) have served as the theoretical groundwork of the breach–outcomes relationship literature. In brief, social exchange theory suggests that psychological contract breach reduces employees' felt obligation, which in turn decreases their effort at work. Affective events theory places emotions at the centre – psychological contract breach trigger negative emotions (i.e.

psychological contract violation), which then lead to negative attitudes and behaviours towards the organization. Based on thwarted-need theory (Carver & Scheier, 1982), I argue that the state of a thwarted need to control is another explanatory mechanism underpinning the breach–outcomes relationship, and it can make a unique contribution to our understanding of psychological contract breach and their consequences.

Based on the findings of Chapter 4 and 5, there is now a clear answer to the question of "does the state of thwarted need to control operate as a mechanism to explain why psychological contract breach influence employee behaviours?". However, the question remains as to whether the thwarted-control mechanism is unique. It makes no sense to pay attention to thwarted-control perspective if it actually overlaps with existing perspectives, such as felt obligation and psychological contract violation. Therefore, the aim of this chapter is to both theoretically and empirically examine whether a thwarted-control perspective is valuable because it adds to current theoretical explanations. Specifically, this chapter plans to achieve this goal in two ways.

To address the first question, thwarted need to control and the alternative mechanisms of employee behaviours are considered concurrently following a perception of breach. The employee behaviour focused in this study is OCBI. Recall from Chapter 4 that the relationship between breach and OCBI is not fully unpacked by established explanations. Theoretically, employees' reactions will be directed to the original foci, such that a breach only influences the felt obligation towards the organization but not the co-workers (Lavelle et al., 2007). However, though breach seem to be consistently and negatively

related with OCBO (Coyle-Shapiro, Diehl, & Chang, 2016), the evidence for OCBI is mixed (e.g. Chen et al., 2008; Conway et al., 2014; Priesemuth & Taylor, 2016; Restubog et al., 2007; Suazo & Stone-Romero, 2011; Turnley, Bolino, Lester, & Bloodgood, 2003). This suggests the need to explore alternative psychological pathways to explain when and why employees may change their behaviours towards their colleagues after they are mistreated by the organization. The thwarted-control mechanism may fill this gap to better describe how breach influences OCBI by imposing a threat to the regulatory functioning.

In addition to established mechanisms, such as felt obligation and psychological contract violation, thwarted belongingness will be included as an alternative mechanism because sense of belongingness has been previously demonstrated to motivate helping behaviours (Thau, Aquino, & Poortvliet, 2007; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). In this study, a simultaneous examination of these alternative mechanisms will be conducted to examine whether thwarted need to control goes beyond social exchange and affective-event theories, as well as whether thwarted need to control provides a unique explanation over thwarted belongingness to explaining the effect of breach on OCBI.

In addressing the second question, I examine whether thwarted need to control provides a fundamental reason for why felt obligation and psychological contract violation matter. Using felt obligation as an example, it is likely that a sense of control may prompt employee reciprocation. One of the core aspects of reciprocation is to return others' favours (Gouldner, 1960), which creates the sense of control we need to form an exchange relationship – others' help towards me is contingent on my help towards them. That is, a

sense of control may be a fundamental assumption for why we engage in reciprocation, and thwarted need to control may impede the development of felt obligation. Therefore, this study will explicitly examine whether thwarted need to control arising from breach serves as the explanatory mechanism of subsequent reduced felt obligation and an increased feeling of violation.

Figure 6.1 presents the hypothesized model for investigation in Chapter 6. Based on the two aforementioned goals, two models will be tested in this chapter. First, in consideration of established theoretical underpinnings, I examine the unique role of a thwarted-control mechanism in explaining the relationship between psychological contract breach and OCBI. In addition, as tested in Chapter 5, I also examine whether employees' implicit theories of EOR can shape this process. Second, I test whether we can explain the effects of breach on felt obligation and psychological contract violation via thwarted need to control.

The structure of the remainder of this chapter is as follows: I will first revisit the core moderated-mediation model and its hypotheses (Section 6.3.1), discuss the effects of alternative mechanisms (Section 6.3.2), and then introduce how thwarted need to control may explain why breach influences felt obligation and violation in Section 6.3.3.

Figure 6.1. Schematic Hypothesized Model of Study 3 (Dotted Lines Represent Control Variables for Their Potential Mediating Effects)
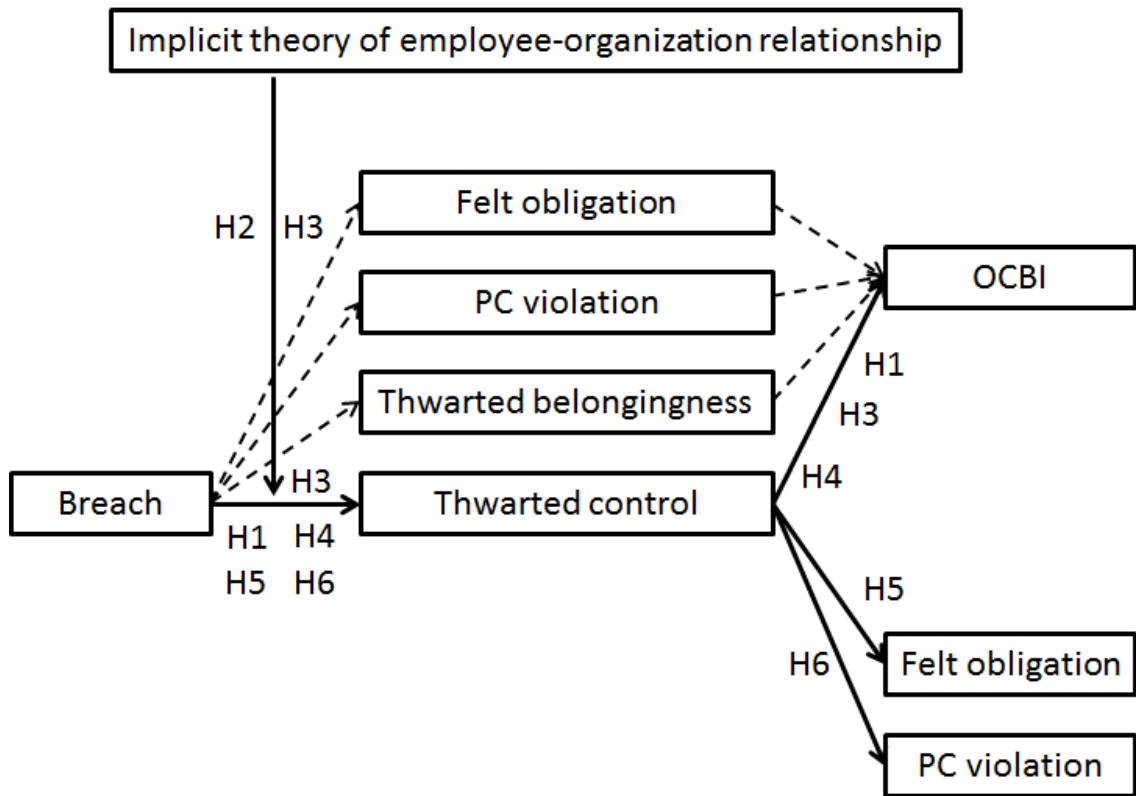
6.3 Hypotheses

6.3.1 The mediating role of thwarted need to control and the moderating role of implicit theories

The core hypothesized model of interest in this thesis is a first-stage moderated-mediation model, which suggests breach influences OCBI via thwarted need to control, and the association between breach and thwarted need to control will be contingent on the implicit theories of EOR. To briefly revisit the theories and hypotheses in previous chapters, employees constantly monitor whether their current level of control matches their expected level of control. Breach of psychological contract are a rupture in the sense of control, thus eliciting the state of thwarted need to control because it creates a discrepancy

between the current and expected level of control. At the same time, a sense of control is needed to motivate behaviours that benefit others (Lee & Allen, 2002; Pavey, Greitemeyer, & Sparks, 2012), such as OCBI. Therefore, thwarted need to control may explain why breach decreases the willingness of employees to engage in OCBI. This is examined as the following hypothesis:

Hypothesis 1: *Employees' thwarted need to control will mediate the relationship between psychological contract breach and OCBI.*

Next, considering individual differences, the expected level of control varies across employees. For instance, employees who have an entity view of the EOR may have lower expectations for how much they can control, whereas employees who have an incremental view of the EOR will be more likely to expect that they should be able to control the relationship with the organization. Therefore, given the same breach-based experience, the gap experienced by entity theorists will be smaller compared to that for incremental theorists because their expectation for controllability is lower; thus, a moderation hypothesis is derived:

Hypothesis 2: *Implicit theories of EOR moderate the relationship between psychological contract breach and thwarted need to control such that the negative relationship is weaker when employees possess an entity theory towards EOR.*

In regards to the above two hypotheses, it is proposed that breach will trigger a psychological state of a thwarted need to control and thus undermine employees' OCBI. It is suggested that this psychological mechanism will be less salient for entity theorists because they are less likely to view the EOR as contingent upon their actions compared to those incremental theorists. Therefore, the proposed model forms a first-stage moderated mediation model, which is reflected below:

Hypothesis 3: *Implicit theories of EOR moderate the mediation effect of thwarted need to control on the relationship between psychological contract breach and OCBI such that the mediation effect is weaker when employees possess entity theory towards EOR.*

Having revisited the hypotheses from previous chapters, I now will address why thwarted need to control may provide a unique explanation for why breach leads to lower OCBI.

6.3.2 The uniqueness of thwarted need to control between breach and OCBI

The theoretical reasons and empirical evidence presented in previous chapters offer strong support that thwarted need to control serves as the linchpin between breach and OCBI; however, is it possible that thwarted need to control actually overlaps with other established explanatory mechanisms. This means that thwarted need to control may not provide a novel explanation for the consequences of contract breach. To address this, I will now introduce the potential theories that need to be considered in the process from breach to OCBI. Figure 6.2 depicts the overall hypothesized model for Section 6.3.2.

Figure 6.2. Hypothesized Model of The Uniqueness of Thwarted need to control between Breach and OCBI (Dotted Lines Represent Control Variables for Their Potential Direct or Indirect Effects)
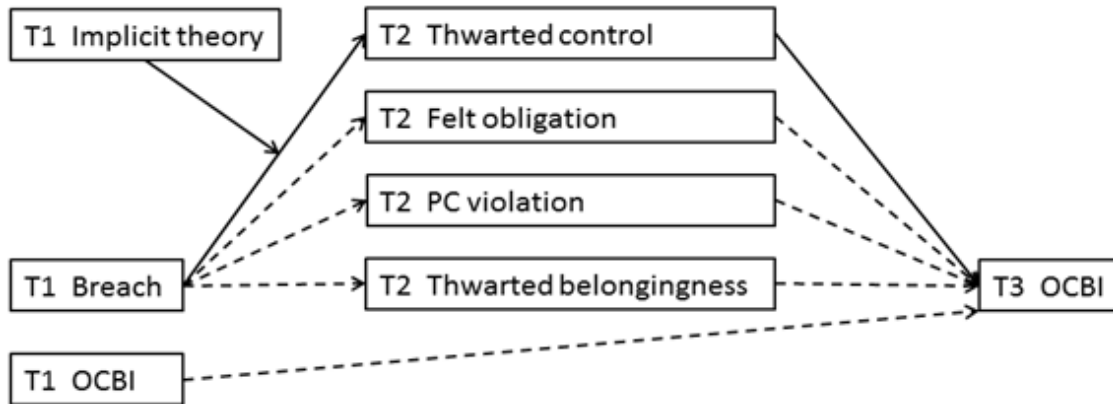
Specifically, there will be three perspectives to examine. First, based on social exchange theory (Blau, 1964), breach can be interpreted as the lack of fulfilled obligations from the organization, and therefore, employees will not engage in OCBs because they reduce their felt obligation in order to rebalance their EOR. Second, based on the affective-events theory, psychological contract violation – which is the affective reaction, such as feelings of anger arising from a breach perception (Morrison & Robinson, 1997) – will lower employees' OCB due to the negative affect experienced at work, which in turn leads to the withdrawal of positive work behaviour (Weiss & Cropanzano, 1996). Third, although the need to belong hasn't been explicitly articulated in breach research, it may have potential impact on OCB. The need to belong is a pervasive need to form and maintain interpersonal relationships and is characterized by stability, affective concern, and continuation into the foreseeable future (Baumeister & Leary, 1995). Perceptions of psychological contract breach may decrease the evaluation of the stability, affective concern, and foreseeability of the future of EOR, thus reducing an employee's willingness

to engage in OCB. Having outlined the alternative perspectives, In the following, I discuss the potential limitations of these theories in underpinning the breach-OCBI relationship, as well as the reason thwarted need to control may provide a unique explanation for the effect of breach on OCBI.

First, although felt obligation has been dominant in explaining the EOR process, there has long been a debate as to whether it explains the relationship between breach and OCBI. To the best of my knowledge, the first supporting argument was presented by Robinson and Morrison (1995), who claim that as psychological contracts capture an employee's relationship with that employee's organization, and hence breach should have a greater impact on OCBO than OCBI. This idea is further supported by Conway et al. (2014) when they followed the target similarity model (Lavelle et al., 2007) to argue that employees' reactions to psychological contract breach will not cross foci such that a breach only influences the felt obligation towards the organization instead of co-workers. However, other researchers view OCBI as a negative reciprocation to the organization and believe that social exchange explains the relationship between breach and both OCBO and OCBI. In their views, OCBI is one form of OCB, which will be reduced after breach to restore the balance in the EOR by lessening the felt obligation to the organization (Chen et al., 2008; Restubog et al., 2007). Therefore, the role of felt obligation as an explanation for the relationship between breach and OCBI is controversial. The literature is limited in answering whether the quality of certain exchange relationships can have consequence for another exchange relationship (Bordia, Restubog, Bordia, & Tang, 2010). On the contrary, there is no such problem with the target of influence from a thwarted-control

perspective. Breach induces regulatory threats (e.g. loss of sense of control) for the employees, and the reduced OCBI comes from the impairment of the regulatory functioning. With the perspective of thwarted need to control, the process from breach to OCBI is simply about the regulation of need to control for the employees themselves without the necessity of a complex profile of multiple targets.

Second, although psychological contract violation has been vigorously studied in psychological contract research, surprisingly, there is only one empirical study that examines whether it can serve as the explanatory mechanism between breach and OCBI. Drawing upon the affective-events theory, Suazo and Stone-Romero (2010) proposed that psychological contract breach influences OCBI via the experience psychological contract violation, and their findings provide empirical support to this idea. Having said that, to rely on the affective-events theory in the breach-OCBI relationship may be somewhat questionable if we consider the research between emotions and OCBs. Differential functions of emotions on OCBs have been demonstrated if we consider both positive and negative emotions. George and Brief (1992) proposed that positive emotions at work can explain why employees engage in voluntary behaviour, and Spector and Fox (2002) proposed that positive emotions increase employees' OCB, whereas negative emotions increase employees' counterproductive work behaviours (CWB). The differential influence of positive and negative emotions received empirical support from Dalal, Lam, Weiss, Welch, and Hulin's (2009) experience sampling studies, such that positive emotions were significantly associated with OCBI but not CWBI, while negative emotions were significantly related to CWBI but not OCBI. Therefore, considering this

differential effect between positive and negative emotions, it makes theoretical sense to anticipate that psychological contract violation (i.e. negative emotion) will be related to an increase in CWBI. However, when it comes to the decrease of OCBI, the theoretical argument for psychological contract violation may be relatively weak. On the contrary, thwarted need to control is strongly related to OCBI because the sense of control itself is the key motivator for OCBI. The state of thwarted need to control directly corresponds to the reduced sense of control, which in turn contributes the decrease of OCBI.

Third, a sense of belonging has been identified as a key motivation of helping behaviours (Baumeister & Leary, 1995; Rochford, 2013). Empirically, Stamper and Masterson (2002) found support for this argument by demonstrating that perceptions of insider status, which is characterized by high level of belongingness, can mediate the effect of social exchange on OCB. Moreover, laboratory experiments reveal that exclusion, which engenders thwarted belongingness, can significantly decrease subjects' intention to engage in pro-social behaviours towards other participants because they have to focus on coping with the threat and thus become less empathetic towards others (Twenge, Baumeister, Nathan, Ciarocco, & Michael, 2007; Twenge et al., 2001). Based on the evidence, it is logical to argue that thwarted belongingness should decrease an individual's willingness to engage in OCBI; however, I believe the belongingness perspective would be only partially effective in the context of psychological contract breach. If we reflect on the nature of psychological contracts, the three core functions of psychological contracts are to reduce the uncertainty of employment, increase the self-monitoring of behaviours, and offer the feeling of influence for the employee (Shore & Tetrick, 1994), which do not directly speak

to a sense of belongingness. On the contrary, the nature of psychological contract breach is the disruption of sense of control. The three mentioned core functions of psychological contracts are tightly connected with the need to control. Employees can gain a sense of control as soon as the psychological contract is formed because they know the potential contingency in the employment, the potential consequence of their behaviours, and the influence they potentially have towards the organization.

In sum, considering the alternative mechanisms for breach and OCBI, there are at least three reasons thwarted need to control can be theoretically unique. First, unlike social exchange theory, which situates breach (from the organization) and OCBI (towards individuals at work) in two different exchange relationships, the thwarted-control perspective brings breach and OCBI into the same process of self-regulation. Second, though the theoretical reason for how psychological contract violation (i.e. negative emotion) relates to less OCBI and is implied by less positive emotion, the reduced sense of control directly speaks to reduced OCBI. Finally, compared to an alternative psychological need (i.e. need to belong), the need to control serves as a fundamental reason employees need psychological contracts in the EOR. Based on above reasoning, I propose the hypothesis below:

Hypothesis 4: *Employees' thwarted need to control will mediate the relationship between psychological contract breach and OCBI, even when felt obligation, psychological contract violation, and thwarted belongingness are considered as additional mediators.*

To re-emphasize, the purpose of this chapter is to tackle the uniqueness of thwarted need to control in a twofold manner: Does thwarted need to control make a unique contribution to understanding the breach–OCBI relationship, and can thwarted need to control actually explain why other mechanisms work? Having articulated the reasons thwarted need to control may offer a unique contribution beyond other alternative mechanisms—such as felt obligation, psychological contract violation, and thwarted belongingness – I shall move to the explication of how thwarted need to control can underpin the reason for reduced felt obligation and increased violation after psychological contract breach.

6.3.3 Thwarted need to control as reasons for felt obligation and psychological contract violation

Social exchange theory and affective-event theory have been dominant in the breach–outcome research, and it should not be overstated that reduced felt obligation and feelings of violation have been nearly viewed as ingrained experiences following breach perception. With this intuitive knowledge, the discussion seems to be silent on why employees reduce their felt obligation and experience violation after psychological contract breach. It has been stated that social exchange theory does not delineate the motivational profile for why mistreatment at the workplace leads to reduced felt obligation (Mayer, Thau, Workman, Dijke, & Cremer, 2012). Furthermore, psychological needs have been argued as the fundamental underpinning of social exchange (Colquitt et al., 2005). In the following, I address the theoretical underpinning and hypothesis for how

thwarted need to control shapes felt obligation, through the lens of the "norm of reciprocity" (Gouldner, 1960).

How can thwarted need to control following psychological contract breach be relevant to the cognition of felt obligation? The two constructs are tightly connected if we bring in the "norm of reciprocity" (Gouldner, 1960). It is suggested that individuals adhere to the norm of reciprocity, in which recipients of benefits feel obligated to provide benefits in return. The norm of reciprocity makes two assumptions: "(1) people should help those who have helped them, and (2) people should not injure those who have helped them" (Gouldner, 1960, p. 171). In other words, the norm of reciprocity hints that another person should help me and should not injure me if I help them. These two demands of individuals supply the sense of control we need in social interactions, such that we can influence others' behaviours (helping or not injuring) towards us by something we do. That is, a contingency between our behaviours and others' behaviours is specified by norm of reciprocity, which creates the sense of control individuals need to engage in an exchange relationship. Also, the norm of reciprocity triggers felt obligation towards others. Felt obligation is the core cognition of either party in a reciprocal exchange relationship, and it evokes the "repayments for benefits received" (Gouldner, 1960, p. 170). As suggested by Gouldner (1960), individuals create a felt obligation because we believe in the norm of reciprocity. In light of the above reasoning, a sense of control of social interactions is suggested to be one of the fundamental functions of norm of reciprocity, and it enables the development of felt obligation after receiving a beneficial treatment from others. Sense of control is the glue that connects two parties in an exchange relationship that facilitates

felt obligation, and thwarted need to control will then reduce felt obligation.

Social exchange derives from psychological needs (Colquitt et al., 2005), and in this section, I theorized how thwarted need to control may serve as the explanatory mechanism for why employees reduce felt obligation after perceived breach. Based on the above reasoning, I propose the hypothesis below:

Hypothesis 5: *Employees' thwarted need to control mediate the relationship between psychological contract breach and felt obligation.*

Next, if thwarted need to control and feelings of violation are both significant consequences following psychological contract breach, do employees experience violation due to their states of thwarted need to control, or does the feeling of violation actually induce the suffering of thwarted need to control? The two counter arguments can be disentangled if we return to the original theorizing of thwarted-need theory and psychological contract theory.

First, if we revisit the nature of thwarted-need theory, it is clear that thwarted need to control should precede psychological contract violation. The creators of the original theories of thwarted needs and psychological contracts posited that an employee's motivational process is activated before the experience of emotional reaction. Thwarted need was proposed to have a direct effect on emotion (Leary, 1990), for the satisfaction of needs would engender positive emotions, whereas negative emotions could be provoked by thwarted need (Baumeister & Leary, 1995). To revisit the theory of thwarted

need, an individual has a comparator mechanism to constantly monitor the current and preferred level of needs satisfaction. A thwarted-need state occurs when the current level of satisfaction fails to meet the preferred level of satisfaction, which then creates tension for the individual and leads to negative emotional feelings (Williams, 2009). From Williams' (2009) perspective, emotion is obviously the product of motivational experience. Empirically, van Beest and Williams (2006) tested this theoretical assertion in their study on the consequences of ostracism. Their findings demonstrated that negative emotions were mediated by thwarted psychological needs, but not the reverse. Thus, thwarted need to control may provide one underlying reason for why employees experience violation after breach.

Secondly, psychological contract theory also implies that a motivational process may come into play for the development of psychological contract violation. Morrison and Robinson (1997) emphasized that breach and violation are distinct and that they are causally linked by an interpretation process. They argue that whether breach perceptions lead to feelings of violation is determined by this interpretation process, in which the employees attach meaning to their perceived breach. Based on Weick's (1995) sense-making theory, Morrison and Robinson (1997) articulate that the interpretation process between breach and violation is triggered and deals with discrepancies between what they expected to happen and what they actually perceived to happen, which is analogous to the process for thwarted-control mechanisms. Breach evokes the interpretation process, determining feelings of violation, and part of the interpretation process involves the comparison of the actual sense of control following this breach and the expected

sense of control in this organization. The interpretation of the discrepancy will decide

whether negative emotions (i.e. psychological contract violation) is induced.

Empirically, evidence also showed that psychological contract violation may be a result

of thwarted need to control. Arshad and Sparrow (2010) found that injustice, which is

aforementioned as a breakdown of a sense of control, is a significant positive predictor

for employees' psychological contract violation. Based on the above reasoning from

thwarted needs and psychological contract theories, the below is therefore hypothesized:

Hypothesis 6: *Employees' thwarted need to control will mediate the relationship*

between psychological contract breach and psychological contract violation.

6.4 Methods

6.4.1 Participants & Procedures

The sample consists of 124 Taiwanese employees (47.6% female; age $M = 36.8$,

$SD = 10.5$) enrolled in a part-time EMBA programme. The course leaders were

approached and agreed to distribute surveys to participants at three points during a 6-

month period. The researchers sent the printed surveys and numbered envelopes for the

course leaders one week prior to every scheduled survey administration period. The

course leaders distributed the surveys in classes, and participants completed, sealed, and

returned the surveys.

To test the hypothesized models (as shown in Figure 6.1 and Figure 6.2), participants

reported their psychological contract breach and implicit theories of EOR at Time 1. The

proposed explanatory reasons, including thwarted need to control, felt obligation,

violation, and thwarted belongingness, were all measured at Time 2. For the behavioural outcome, OCBI is reported at both Time 3 and Time 1 to control for the within-employee differences. Finally, felt obligation and violation were additionally assessed at Time 3, to examine whether thwarted need to control can explain why employees experience reduced felt obligation and increased violation. At Time 1, we distributed 209 and received 164 employee surveys. After deleting incomplete surveys, we retained 157 completed questionnaires for a valid response rate of 75.1%. Three months later, we conducted the second collection and distributed surveys to the 157 employees who returned the questionnaire at Time 1. We then obtained 142 participants responses, 137 of which were completed and usable, for a Time 2 valid response rate of 87.3%. Three months later, we collected the Time 3 questionnaires. Questionnaires were distributed to the 137 employees, and we obtained responses from 135 participants. After deleting incomplete cases, we obtained 124 responses for the survey at all three measurement points, yielding an overall response rate of 59.3%. Additionally, 98.4% of the participants received at least a bachelor's degree, and the average tenure of this sample is 13.5 years ($SD = 8.65$).

6.4.2 Measures

Psychological contract breach. The same breach scale (Robinson & Morrison, 2000) used in previous chapters was used in this chapter, with a Cronbach's α of .87.

Implicit theories of EOR. The same measure for implicit theories of EOR as in Study 2 was used, and the Cronbach's α in Study 3 was .91.

Thwarted need to control. The same thwarted-control scale (Zadro et al., 2010) used in previous chapters was used, with the Cronbach's α of .84.

OCBI. The employees reported their OCBI both at Time 1 and Time 3 with the seven-item scale from Van Dyne and LePine's (1998). A sample item is "I volunteer to do things that help co-workers with their work". The Cronbach's α was .95 at Time 1 and .96 at Time 3 in Study 3.

Felt obligation. The felt obligation were measured at Time 2 and Time 3 with the scale developed by Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001). It assessed how much the employee felt obligated to contribute in the organization. A sample is "I have an obligation to the organization to ensure that I produce high-quality work", and the Cronbach's α were both .82 at Time 2 and Time 3.

Psychological contract violation. The 4 items from the psychological contract violation scale by Robinson and Morrison (2000) is used at Time 2 and Time 3. A sample item is "I feel betrayed by my organization", and the Cronbach's α were both .93 at Time 2 and Time 3.

Thwarted belongingness. The 5-item subscale of thwarted belongingness in the thwarted-need scale developed by Zadro et al. (2010) was used. As mentioned in Chapter 4, the thwarted-need scale was originally developed for an ostracism experiment. Due to the experiment's context in a computer game, the items asked participants to answer

regarding their feelings of thwarted belongingness through questions such as "I felt the others in the game interacted with me a lot", which I rephrased as "I felt the others in the organization interacted with me a lot" for this study. The scale ranged from 1 (strongly disagree) to 7 (strongly agree). Higher scores reflect greater thwarted needs. The Cronbach's α is .87.

Control variables. In the same logic as previous chapters, I controlled for gender and age. Specifically in this study, the OCBI measured at Time 1 will also be included to control for the within difference of employees when predicting the OCBI at Time 3.

6.4.3 Data Analysis

Before I directly examined the proposed hypotheses, I conducted CFAs all the variables. I used Mplus (Muthen & Muthen, 2012) with the estimator of WLSMV to test the measurement model and examine whether the measured variables are distinct from one another.

I tested the hypothesis with the commonly used SPSS Statistical Software version 22.0 (IBM Corp, 2013). All predictors in the model were grand-mean centred (excluding gender because it is a dummy variable where 0 is for female and 1 is for male) to avoid issues of multicollinearity (Aiken & West, 1991). For the examination of the mediation, moderation, and moderated-mediation models that did not involve multiple mediators (i.e. all hypotheses except for Hypothesis 4), multiple regressions were conducted. Except for gender and age, I also tried to include dependent variables as control variables at an earlier time to control for the error variance due to within factors of employees (Spector, 2006).

To illustrate this, OCBI at Time 1 was included as a control variable for the prediction of OCBI at Time 3.

Because Hypothesis 4 involves multiple mediators in the same model, the path analytic approach (Edwards & Lambert, 2007; Hayes, 2013) and the PROCESS procedure developed by Hayes (2013; Model 7) were used to examine the proposed moderated-mediation model. I estimated the indirect effects using unstandardized coefficients and used a bootstrapping technique to place 95% confidence intervals (CIs) around the estimates of the indirect effects (Preacher & Hayes, 2008). In line with prior studies (i.e. Ferris, Brown, & Heller, 2009), I chose 1,000 times resampling for the procedure.

For the interpretation of moderation effect (Hypothesis 2, 3, and 4), in addition to the result of multiple regressions, I also performed a simple slope analysis with a diagram, which was produced to facilitate the interpretation (Dawson, 2014). I used one standard deviation above or below the mean (Aiken & West, 1991) of implicit theories of EOR to indicate entity theorists or incremental theorists to examine the moderation effect. Furthermore, an index of moderated mediation was used to examine the significance of the indirect effect of breach to dependent variables via thwarted need to control.

6.4.4 Results

Measurement model. I conducted CFAs to examine our measurement model. I first tested a 10-factor model, in which I included psychological contract breach, thwarted need to control, implicit theories of EOR at Time 1, thwarted belongingness at time 2, felt

obligation and psychological contract violation at Time 2 and Time 3, and OCBI at Time 1 and Time 3. The model yielded good fit to the data (WLSMV-χ2 (1212) = 1820.40; RMSEA = .064; CFI = .97; TLI = .96). The 10-factor model is better than the alternative models, including the single-factor model (WLSMV-χ2 (1274) = 6921.65; RMSEA = .189; CFI = .70; TLI = .68) and the three-factor model, in which items rated at Time 1, Time 2, and Time 3 were influenced by three factors (WLSMV-χ2 (1271) = 9833.74; RMSEA = .233; CFI = .54; TLI = .52). These CFA results support the discriminant validity of the research variables.

Table 6.1 presents descriptive statistics of variables in Study 3. Table 6.2 presents the results of multiple regression models without any controlled alternative mediators for Hypothesis 1 to Hypothesis 3, whereas Table 6.3 presents the results of multiple regression models with the alternative mediators considered for Hypothesis 4. Finally, Table 6.4 presents the results of multiple regression models while violation and felt obligation were outcome variables for Hypothesis 5 and Hypothesis 6.

Table 6.1. Descriptive Statistics, Correlations, and Reliabilities of Study 3 (N = 124)

	Variable	*Mean*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1	Gender (1 = male, 0 = female)	.52	.50												
2	Age	36.33	8.89	.213*											
3	Implicit theories of EOR	3.83	1.52	-.009	-.181*										
4	OCBI (Time 1)	5.86	.93	-.072	.080	-.007									
5	Breach (Time 1)	3.43	1.10	-.064	-.075	.364***	-.201*								
6	Thwarted need to control (Time 2)	3.44	1.02	-.045	-.236**	.385***	-.239**	.363***							
7	Thwarted belongingness (Time 2)	2.76	1.02	.098	-.007	.248**	-.258**	.338***	.603***						
8	Felt obligation (Time 2)	5.11	.79	.056	.259**	-.260**	.406***	-.313***	-.465***	-.449***					
9	Violations (Time 2)	2.56	1.28	.039	.009	.272**	-.220*	.537***	.410***	.669***	-.418***				
10	Felt obligation (Time 3)	5.10	.84	.074	.384***	-.258**	.322***	-0.326***	-.488***	-.277**	.536***	-.294**			
11	Violations (Time 3)	2.66	1.22	-.019	-.055	.314***	-.125	.362***	.352***	.448***	-.341***	.629***	-.452***		
12	OCBI (Time 3)	5.45	.97	.132	.191*	-.233**	.372***	-0.264**	-.437***	-.280**	.436***	-.318***	.624***	-.518***	

Mediating role of thwarted need to control (OCBI as outcome). As shown in Table 6.2, I used control variables and psychological contract breach to predict OCBI and found that psychological contract breach is a negative predictor ($B = -0.16$, $p < .05$). Later, I included thwarted need to control, which was negatively related to OCBI ($B = -0.19$, $p < .05$), and psychological contract breach was no longer a significant predictor ($B = -0.07$, n.s.), providing support for Hypothesis 1.

Table 6.2. Unstandardized Estimates (Standard Error) of The Moderated-Mediation Model (without Additional Mediators) in Study 3 (N = 124)

Variable	Thwarted need to control (Time 2)				OCBI (Time 3)			
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Control variables								
Gender	0.05	0.17	-0.02	0.16	.23	.16	0.23	0.15
Age	-0.02*	0.01	-0.02	0.01	.01	.01	0.01	0.01
OCBI (Time 1)					.35***	.09	0.29**	0.08
Independent variable								
Breach (Time 1)	0.32***	0.08	.21**	0.08	-.16*	.07	-0.07	0.07
Moderator								
IMT			.17**	0.06				
Interaction effect								
Breach (Time 1) X IMT			-.11*	0.04				
Mediator								
Thwarted need to control (Time 2)							-0.31***	0.08
R^2	.156***		.243***		.185***		.264***	

 * *p* < .05
 ** *p* < .01
*** *p* < .001

Moderating role of implicit theories. Again, as shown in Table 6.2, I used control variables and psychological contract breach to predict thwarted need to control and found that psychological contract breach is a positive predictor ($B = 0.32$, $p < .001$). For the moderating role of implicit theories on the association between breach and thwarted need to control, I additionally included implicit theories and the interaction terms with psychological contract breach in the model. Breach ($B = 0.21$, $p < .01$) and implicit theories ($B = 0.17$, $p < .01$) were both positive predictors, and I found the interaction terms to be significant ($B = -0.11$, $p < .05$) in predicting thwarted need to control. Figure 6.3 presents the interaction graph and shows that the relationship between breach and thwarted need to control was not significant for entity theorists (simple slope = 0.04, n.s.) but was significant for incremental theorists (simple slope = 0.36, $p < .001$), supporting Hypothesis 2 and replicating the findings on the moderating role of thwarted need to control in Chapter 5.

Figure 6.3. Interaction Plot of Implicit Theories of EOR and Breach in Predicting Thwarted need to control in Study 3
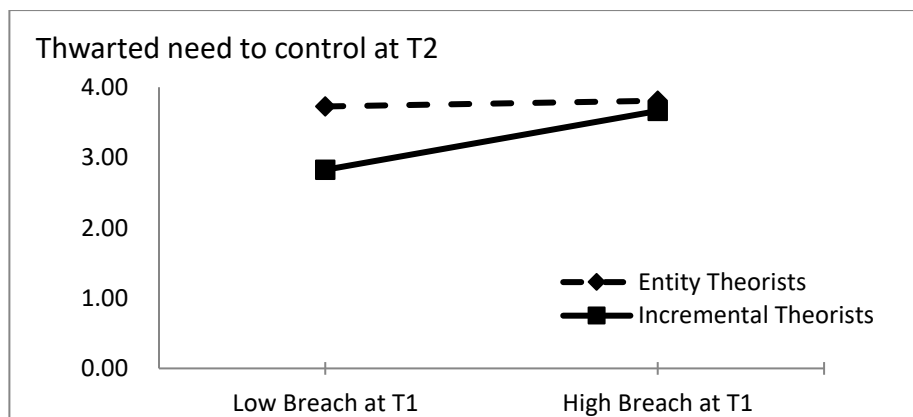
The moderated-mediation model. Finally, regarding the conditional mediation effect, the result demonstrated for OCBI that thwarted need to control had a non-significant mediation effect for entity theorists (conditional mediation effect = –.01, 95% *CI* [–.09 to .06]), but was significant for incremental theorists (conditional mediation effect = –.12, 95% *CI* [–.21 to –.05]). The index of moderated mediation was 0.04 (95% *CI* [.00 to .08]). These results provided support for Hypothesis 3.

In brief, the findings so far demonstrate that Hypothesis 1, Hypothesis 2, and Hypothesis 3 all received support, replicating the mediating role of thwarted need to control, moderating role of implicit theories, and the overall moderated-mediation model in previous chapters. I will first present the results for Hypothesis 4, in which the additional mediators were considered for the examination of the mediating role of thwarted need to control, and then the results for Hypothesis 5 and Hypothesis 6, in which thwarted need to control are proposed to mediate the effects of breach on felt obligation and psychological contract violation.

Mediating role of thwarted need to control with alternative mediators. As shown in Table 6.3, when thwarted need to control and the three alternative explanatory variables (i.e. felt obligation, psychological contract violation, and thwarted belong) are all considered mediators for OCBI in the model, psychological contract breach significantly predicted all four mediators. These included thwarted need to control ($B = 0.32, p < .001$), felt obligation ($B = –0.21, p < .01$), psychological contract violation ($B = 0.63, p < .001$), and thwarted belongingness ($B = 0.32, p < .001$). To predict OCBI, only thwarted need to

control ($B = -0.29$, $p < .01$) significantly predicts OCBI. None of the other variables were significantly related to OCBI: felt obligation ($B = 0.22$, n.s.), psychological contract violation ($B = -0.13$, n.s.), and thwarted belongingness ($B = 0.14$, n.s.). This result provides support for Hypothesis 4.

Table 6.3. *Unstandardized Estimates (Standard Error) of The Moderated-Mediation Model Controlling for Additional Mediators in Study 3 (N = 124)*

Variable	Thwarted need to control (Time 2) B	SE	Felt obligation (Time 2) B	SE	Violations (Time 2) B	SE	Thwarted belongingness (Time 2) B	SE	OCBI (Time 3) B	SE	B	SE
Control variables												
Gender	0.05	0.17	-0.02	0.14	0.17	0.20	0.25	0.18	.23	.16	0.21	0.15
Age	-0.02*	0.01	0.02**	0.01	0.01	0.01	-0.00	0.01	.01	.01	0.00	0.01
OCBI (Time 1)									.35***	.09	0.24**	0.09
Independent variables												
Breach (Time 1)	0.32***	0.08	-.21**	0.06	.63***	0.09	.32***	0.08	-.16*	.07	0.00	0.08
Mediators												
Thwarted need to control (Time 2)											-.29**	0.10
Felt obligation (Time 2)											0.22	0.12
Violations (Time 2)											-0.13	0.09
Thwarted belongingness (Time 2)											0.14	0.12
R^2	.156***		.133***		.278***		.107**		.185***		.285***	

$*\ p < .05$
$**\ p < .01$
$***\ p < .001$

Mediating role of thwarted need to control (felt obligation and psychological contract violation as outcomes). As shown in Table 6.4, I used control variables and psychological contract breach to predict felt obligation and found that psychological contract breach is a negative predictor ($B = -0.14$, $p < .05$). Later, I additionally included thwarted need to control and found it negatively predicted felt obligation ($B = -0.20$, $p < .01$), and psychological contract breach was no longer significant ($B = -0.09$, n.s.), providing support for Hypothesis 5. Similarly, I used control variables and psychological contract breach to predict psychological contract violation and then additionally included thwarted need to control as a predictor. The thwarted need to control was not significantly related to psychological contract violation. Therefore, Hypothesis 6 is not supported.

Table 6.4. Multiple Regression Model for Study 3 (N = 124)

Variable	Thwarted need to control (Time 2)		Felt obligation (Time 3)				Violations (Time 3)			
	B	SE	B	SE	B	SE	B	SE	B	SE
Intercept	3.51	0.08	5.10	0.07	5.10	0.06	2.66	0.10	2.66	0.10
Gender	-0.02	0.16	-0.04	0.14	-0.03	0.13	0.03	0.21	0.02	0.20
Age	-0.02	0.01	0.03***	0.01	0.03***	0.01	-0.00	0.01	0.00	0.01
Felt obligation (Time 2)			0.44***	0.09	0.35***	0.09				
Violations (Time 2)							0.59***	0.08	0.56***	0.08
Breach (Time 1)	0.21**	0.08	-0.14*	0.06	-0.09	0.06	0.03	0.10	0.01	0.10
Thwarted need to control (Time 2)					-0.20**	0.07			0.12	0.10
R^2	0.035*		0.420***				0.408***			

* $p < .05$
** $p < .01$
*** $p < .001$

Supplementary Analysis

Although the theory and hypothesis in this chapter examine how thwarted need to control mediates the effects of breach on felt obligation and psychological contract violation, it implies that thwarted need to control precede both. However, it is possible that the influence in nature is reciprocal. Therefore, to examine this, I included a supplementary analysis to test whether thwarted need to control shapes felt obligation and psychological contract violation or whether the direction of influence goes in the other direction.

To examine whether the reciprocal direction argument works, I test a model where the proposed mediator (thwarted need to control) becomes the dependent variable and where the proposed dependent variables (psychological contract violation and felt obligation) becomes the mediator. Specifically, as depicted in Figure 6.4, controlling for gender, age, and thwarted need to control (Time 2), can felt obligation (Time 2) and psychological contract violation (Time 2) mediate the effects of psychological contract breach (Time 1) on thwarted need to control (Time 3)?

Figure 6.4. Hypothesized Model for Supplementary Analysis (Dotted Lines Represent Control Variables)
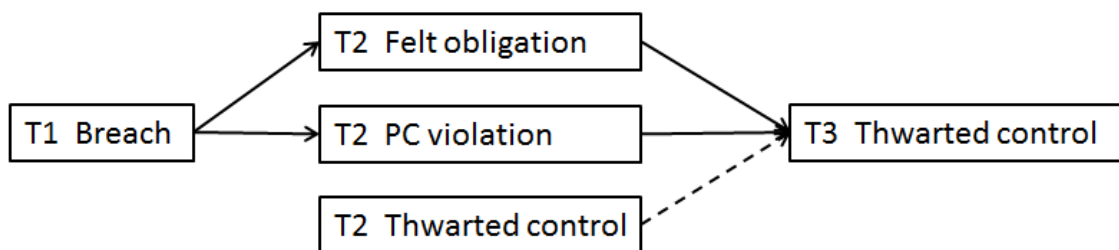
As shown in Table 6.5, I used control variables and psychological contract breach for the prediction of felt obligation and found that psychological contract breach are positive predictors ($B = 0.19$, $p < .01$). Subsequently, I included felt obligation and psychological contract violation to predict thwarted need to control, but neither of them were significant (felt obligation: $B = -0.04$, n.s.; contract violations: $B = 0.11$, n.s.). This finding demonstrates that thwarted need to control precedes felt obligation and psychological contract violation and not the other way around, further strengthening the support for the role of thwarted need to control as the underpinning explanation for the relationship between felt obligation and violation on outcomes.

Table 6.5. *Multiple Regression Model of Supplementary Analysis for Study 3 (N = 124)*

Variable	Thwarted need to control (Time 3)			
	B	*SE*	*B*	*SE*
Control variables				
Gender	-0.06	0.13	-0.08	0.13
Age	0.00	0.01	0.00	0.01
Thwarted need to control (Time 2)	0.69	0.07	0.64	0.07
Independent variables				
Breach (Time 1)	0.19**	0.06	0.12	0.07
Mediators				
Felt obligation (Time 2)			-0.04	0.10
Violations (Time 2)			0.11	0.06
R^2	.568***		.582***	

* $p < .05$
** $p < .01$
*** $p < .001$

6.5 Discussion

This chapter began by arguing that the state of thwarted need to control is unique to explaining the behavioural consequences of psychological contract breach. In translating this argument to the present study, I have posited that first, thwarted need to control will reduce employees' OCBI after breach, even when alternative explanatory mechanisms are simultaneously considered. Second, I further proposed that thwarted need to control serve as the fundamental reason that breach evokes the other explanatory mechanisms. Four main sets of findings arise from the present study, and each will be discussed in turn: (a) thwarted need to control underpins psychological contract breach and OCBI beyond other discussed mechanisms, (b) thwarted need to control can explain why psychological contract breach reduce felt obligation, (c) thwarted need to control cannot explain why psychological contract breach lead to psychological contract violation, and (d) corroborating evidence of thwarted-control mechanisms and role of implicit theories of EOR.

Thwarted need to control underpin psychological contract breach and OCBI beyond other discussed mechanisms

Previous chapters have shown that the thwarted-control mechanism can effectively serve as the linchpin between psychological contract breach and OCBI, which contributes to the psychological contract literature by offering an additional account towards understanding the relationship between breach and citizenship behaviours. To reveal that the thwarted-control mechanism is unique and not redundant as the underpinning basis for the behavioural outcomes of breach, this study carries out a simultaneous examination

with four explanatory mechanisms, including thwarted need to control, felt obligation, psychological contract violation, and thwarted belongingness. The findings offer strong evidence for the uniqueness of thwarted need to control, given that the alternative mechanisms failed to explicate why breach lead to OCBI when thwarted need to control was considered. This extension is meaningful, because it suggests that compared to established theoretical reasons—such as lower felt obligation, increased violations, or a threatened sense of belonging – the diminished sense of control is a more fundamental psychological reason for the influence of psychological contract breach on behavioural patterns in the organization. The thwarted-control perspective widens the scope of psychological consequences of the perception of breach by considering the perceived influences in the EOR and the sustainability of the expected contingency, moving away from the concerns on rational calculations, emotional reactions, or relational motivations, such as the felt obligation and violation and the need to belong.

The findings of this study focused only on how breach may influence OCBI, so it is not clear whether thwarted need to control will be unique in explaining other consequences of breach. Having said that, theorizing about psychological contracts was continuously emphasized that the need to control is the foundation of psychological contracts. Argyris (1960) mentioned that psychological contracts provide assurance to each party and that they influence the other party. Rousseau (2001) drew on the idea of cognitive schema to describe psychological contracts, and schema was originally proposed to help an organism operate and master the environment (Piaget, 1950). Furthermore, Shore and Tetrick (1994) stated that the reason employees develop psychological contracts is to reduce uncertainty

and to offer a feeling of influence of employment. These statements fully suggest that following the perception of breach, an employee would experience regulatory impairment, such as the lack of influence and failure to control the relationship with the organization, which in turn impacts how employees behave in the organization. The literature provides a strong theoretical foundation to demonstrate how the need to control affects psychological contracts. This chapter responds to this suggestion with empirical evidence that indicates thwarted need to control goes beyond other mechanisms in delineating how psychological contract breach impact employee behaviours, such as OCBI.

In addition to shedding light on the explanatory effect of sense of control after the perception of breach, the perspective of thwarted need to control also offers a different framework from previous perspectives in conceptualizing OCBI in EOR literature. To date, the discussion of OCBI in EOR research mainly focuses on the general question about how positive relationship quality can facilitate the engagement of OCBI. The indicators of relationship quality that have been discussed include POS (e.g. Kurtessis et al., 2015), social exchange (e.g. Jiang & Law, 2013), and LMX (e.g. Karriker & Williams, 2009). As an illustration, social exchange has been found to be the explanatory reason for why perceived investment from the organization facilitates employees' OCBI (Kuvaas & Dysvik, 2009) and why procedural justice influences OCBI (Jiang & Law, 2013). Furthermore, to address why the positive EOR quality can be effective in shaping OCBI, the knowledge is limited to the organizational trust (Aryee, Budhwar, & Chen, 2002) and organizational identification (Shen et al., 2014), which reflect affective relational satisfaction. Obviously, the literature has ignored the employee motivation behind the key

force that drives OCBI in the EOR framework. Accordingly, the thwarted-control perspective in this study directs us to understand the nature of EOR from another angle that emphasizes how the satisfaction of the sense of control can underpin the relationship quality and an employee's willingness to engage in OCBI

Finally, with the evidence that thwarted need to control can go beyond established mechanisms in explaining OCBI in EOR, it also contributes to understanding how the discussion of mutuality can be important for OCBs in EOR literature. In brief, mutuality refers to an agreement of understanding, so the mutuality of a psychological contract "means that the parties involved do in fact hold the same beliefs regarding their obligations to each other" (Rousseau, 2001, p. 534). Mutuality facilitates better quality EOR, such that Rousseau (2004) suggested that psychological contracts will be more likely to be fulfilled when the two parties both agree to the terms and conditions. Recently, the mutuality in the EOR has been found to be influential for employees' OCBs. For instance, Matta, Scott, Koopman, and Conlon (2015) demonstrated that regardless of how high the LMX, greater mutuality between employees and their supervisors in terms of LMX leads to greater OCBO and OCBI. Similarly, Ye, Cardon, and Rivera (2012) showed that psychological contract mutuality has a profound influence on employees' OCBs (without specifying which type). As an emerging issue, the mechanism of mutuality is not yet explored, and I suggest that the satisfaction of need to control may serve as an underpinning reason, because the agreement in the evaluations of the relationship will reduce uncertainty (Heider, 1946) and facilitate a sense of control, which then influences

the engagement of OCBs. The emphasis of the thwarted-control perspective can contribute to this research strand by offering an explanation for why mutuality matters.

Thwarted need to control can explain why psychological contract breach reduce felt obligation

The second aim in this chapter is to demonstrate that thwarted need to control is unique in that it underpins the relationships between breach and established mechanisms, including felt obligation and psychological contract violation. The results confirm that thwarted need to control is the reason employees reduce their felt obligation after breach experiences, but not vice versa. This finding manifests the powerful role of psychological needs in the psychological contract process, which was articulated by early research in this field. The reciprocation was said to be "the process of fulfilling a contractual relationship in which both parties seek continuously to meet their respective needs" (Levinson et al., 1962, p. 38), and "needs are therefore the driving force behind reciprocation" (Conway & Briner, 2009, p. 75). In other words, the satisfaction of psychological needs is the motivational reason that forms a reciprocal relationship. Specifically, the need to control of employees is salient in developing the reciprocity with the organization. When the need to control is thwarted due to breach perception, there is a break down in the contingency belief in the organization, which is the fundamental condition for a reciprocal relationship. Therefore, employees will be less likely to believe that the expected contributions from the organization are contingent on their obligations, which gives them no reason to continue possessing felt obligation towards the organization.

In addition to offering a fundamental underpinning reason for why breach lead to a decrease in felt obligation, this study also contributes to the psychological contract literature because it directly addresses that needs and obligations are different in psychological contracts. As a challenge for psychological contract research, understanding the distinction between obligations and needs, as well as how they may differ and interrelate (Conway & Briner, 2009), was proposed. Although the difference has been somewhat conceptualized in parallel as a cognitive versus motivational part of psychological contracts (Meckler et al., 2003), the way they may interplay has not been examined in current literature. This study took the first step by proposing that the state of thwarted need shapes the change in felt obligation, showing that the motivational impact precedes the cognitive impact in the psychological contract breach process. Based on this finding, more endeavours to explore the interplay between the state of psychological needs and felt obligation may also offer crucial insights. For instance, will the satisfaction of the need to control also precede the increase in felt obligation after employees experience psychological contract fulfilment? Will the need to control shape the focused obligations within the formation of psychological contract?

Thwarted need to control cannot explain why psychological contract breach lead to psychological contract violation

I turn to the proposed hypothesis which did not receive support. The finding demonstrates that thwarted need to control may not underpin the reason psychological contract breach lead to psychological contract violation. One reason for such a non-significant result

might pertain to time frame issues of the study design. With the time-lagged design, the breach and outcomes were assessed with a half-year time gap, which reduces the same-time bias due to cross-sectional research (Podsakoff et al., 2003). However, feelings of violation can be experienced in a relatively short time following the perception of breach (Conway & Briner, 2002), so the study being designed such that participants can report violations shortly after breach would have been more ideal, such as experiments or daily diaries. For instance, the empirical finding that thwarted-psychological needs mediate the effects of ostracism on negative emotional reactions was based on the experiment's design (van Beest & Williams, 2006). More consideration of the time frame in study design will help to examine whether thwarted need to control can explain why psychological contract breach lead to psychological contract violation.

The findings of unsupported hypotheses due to the study's design do not detract from the importance of studying why and when the perception of breach lead to feelings of violation. Before Morrison and Robinson (1997) proposed the clear distinction between breach and violation; these two terms were actually seen as interchangeable (Suazo, 2009; Zhao et al., 2007). During an 18-month longitudinal study, Robinson and Morrison (2000) conducted a study to examine whether breach and violation are empirically independent. With the results from factor analysis and differential antecedents, the findings provide strong support for the suggestion that breach and violation are distinct elements of psychological contracts. Also, Dulac et al. (2008) found that the perception of breach gives the impetus to respond cognitively via turnover intentions, and this effect goes beyond the explanation of feelings of violation, suggesting the independent influence of

breach and violation. However, there have been few empirical studies that explore the relationship between perception of breach and feelings of violation (Dulac et al., 2008). While the two constructs are proposed to be and examined as independent, prior studies rarely consider both of them at the same time. Researchers only use one of them to claim that they capture the disruption of psychological contracts and examine the interested outcomes without addressing the process between breach and violation. To the best of my knowledge, in the 17 years since the distinction was made, fewer than five empirical studies tested both constructs simultaneously. Furthermore, all these studies (e.g. Dulac et al., 2008; Ho, Weingart, & Rousseau, 2004; Jamil, Raja, & Darr, 2013; Raja, Johns, & Ntalianis, 2004) only investigated when breach would lead to more or less violation, neglecting the explanation for why breach would cause violation.

Therefore, this endeavour to explore the mechanism between breach and violation responded well to this gap in the literature. The argument that thwarted need to control explicates how a breach becomes violation is crucial. Morrison and Robinson (1997) conceptually argued that breach develop into violation due to an interpretation process where the employees evaluate and attach significance to the event without elaborating on what would be evaluated. Thwarted need to control may serve as a major theme within the interpretation process. When employees believe that a breach constitute a serious threat to their need to control in the organization, the meaning of "making me out of control" is attached to this breach, which elicits the feelings of violation. This argument also potentially provides theoretical explanation for the effect of boundary conditions on the relationship between breach and violation. In their study, Raja, Johns, and Ntalianis's

(2004) demonstrated that employees with an external locus of control (externals) will be less likely to respond to breach with violation. This can be theorized by the thwarted-control perspective, such that externals tend to possess lower expected levels of control in the organization; thus, the impact of breach on thwarted need to control is mitigated, which in turn dampens feelings of violation. The exploration of thwarted need to control as the motivational underpinning the breach-violation relationship responds to calls for more emphasis on the dynamics between breach and violation (Raja et al., 2004).

Corroborating evidence of thwarted-control mechanisms and the role of implicit theories of EOR

Though not a main aim of this chapter, the findings from the present study provide additional support for the findings in the previous chapters. Specifically, this study presents replication evidence for the thwarted need to control, which explains why breach would influence employees' OCBI, corroborating the overall conclusion of Chapter 4 and Chapter 5. Moreover, this study presents additional support for the role of implicit theories of EOR. It explains why employees may experience greater or lesser thwarted need to control after breach, and which employees are more likely to reduce their OCBI in response. The findings again strengthen the importance of thwarted-control perspective in theorizing why breach influences OCBI and who would be influenced. The theoretical contributions for these findings were described in previous chapters.

6.5.1 Limitations

This study has improved the weaknesses in the previous two studies, but it is not without

its own limitations. First, the attempt to control baseline OCBI to predict the OCBI half a year later improves the research findings by considering differences in employees, but the issue of temporality was not explored. Recently, as proposed by Bolino, Harvey, and Bachrach (2012), "employees' OCBs may vary over time (e.g., minute by minute, over the course of a day, …)", so OCBs may actually be a time-dependent outcome of a dynamic process (p. 127). Two empirical studies with experience sampling methods in three weeks, Dalal, Lam, Weiss, Welch, and Hulin (2009) demonstrated that OCB is a dynamic construct with profound within-person variation (29%–87%), and positive affect has been found to be a key driven factor for this dynamic. Similarly, Spence, Brown, Keeping, and Lian (2014) showed that momentary positive affect (i.e. the emotion of gratitude) can significantly predict the daily fluctuations of employees' OCBs. Specifically for OCBI, Trougakos, Beal, Cheng, Hideg, and Zweig (in press) also argue that OCBI fluctuates within an employee over time; however, current research has offer limited knowledge of the dynamics of OCBI. Therefore, to fully answer how breach thwarts the need to control and in turn decrease OCBI, a more sophisticated approach that attends to the daily dynamic process will be valuable. This is especially true because both psychological contract breach and psychological need states have previously been demonstrated to vary on a daily basis (Conway & Briner, 2002; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000).

Second, to examine whether thwarted need to control goes above and beyond other established mechanisms between breach and employee behavioural outcomes, I focused on OCBI in this study, so it is still not clear whether an examination of multiple

mechanisms will reveal similar patterns for OCBO. Moreover, in addition to both types of OCB, thwarted need to control may help to explain the relationship between breach and other employee behaviours. For example, it would be valuable to include counterproductive work behaviours and proactive behaviours, which have been examined in previous psychological contract breach studies (e.g. Bal et al., 2011; Chao et al., 2011; Ng et al., 2010). Similar to OCBO, counterproductive work behaviours and proactive behaviours have been theorized as behaviours that occur after psychological contract breach due to negative affection and reduced felt obligation, respectively. So far, however, the motivational reasons remain hidden. In addition, thwarted need to control is very likely to induce more counterproductive work behaviours and less proactive behaviours, because Robinson et al. (2013) mentioned that a sense of control is enhanced (at least in the short term) after engagement of counterproductive work behaviours, and perceived control over the work is one of the key reasons that proactive behaviours happen (Parker, Bindl, & Strauss, 2010). To extend this work based on a thwarted-control perspective, it will be necessary to examine whether this perspective is effective and unique. This will aid in understanding the associations between psychological contract breach and other types of work behaviours, even simultaneously considering the established mechanisms.

Third, when research emphasizes the exploration of "breach–outcomes" relationships, we intuitively believe that everything begins after a psychological contract breach occurs. However, instead of a starting point, breach is just one snapshot in the employees' dynamic relationship with the organization, and the so-called "outcomes" actually may come into this process not only after but before the breach is perceived. As stated by

Conway and Coyle-Shapiro (2012), the exclusive research on consequences of breach is "overlooking the role employee behaviour has as an input into the ongoing exchange with their employer" (p. 278). With a longitudinal study, Morrison and Robinson (2000) also found that employee performance can serve as an antecedent leading to higher psychological contract breach. Continuing from the thoughts above, there will be two crucial questions generated following the study in this chapter. First, will the decrease of OCBI actually increase the perception of breach? If OCBI is viewed as an important employee inducement in the eyes of the organization, another breach from the organization may be induced to rebalance the exchange relationship. Second, how will the decrease of OCBI influence the subsequent state of need to control? As a discretionary behaviour, OCBI is a natural choice for employees, so it is likely that employees gain a sense of control because they experience that "I choose not to help my colleagues". On the other hand, if we view the quality of interpersonal relationships at the workplace as one source of the sense of control, the decrease of OCBI may later diminish the sense of control, deteriorating the thwarted need to control. By viewing breach as a trigger that ignites the thwarted-control process, this study is limited in addressing the influences from OCBI to breach and the sense of control for employees.

6.5.2 Suggestions for future research

Similar to previous chapters, this chapter taps into a nascent field of enquiry, bringing perhaps more questions than answers. There are three primary areas of future study. First, the attempt to include the need to belong as an alternative mechanism between psychological contract breach and employee behaviours – especially focusing on the

thwarted belongingness – is worthy of future investigation. In this study, although thwarted belongingness was shown not to be significant in predicting OCBI following psychological contract breach, the findings strongly demonstrate that employees experience thwarted belongingness after breach. This is a novel contribution to the study of the breach–outcomes relationship. Though the importance of need to belong is alluded to in the studies between breach and organizational identification, suggesting that breach weakens employees' psychological attachments to the organization (Bordia et al., 2008; Restubog et al., 2008; Wei & Si, 2013; Zagenczyk et al., 2011) and increases employees' reluctance to put forth effort for the benefit of the organization, the role of the need to belong is not explicitly examined. The investigation of thwarted belongingness after breach potentially helps fully unpack the underlying motivational process of employees; at the same time, it expands the scope of employee behaviours at the workplace. As an illustration, so far there is barely any discussion on how employees try to influence other people's perceptions about themselves at work, and impression management behaviour has been theorized as one type of behaviour that can help employees recover from the state of thwarted belongingness (Williams, 2007). When breach triggers thwarted belongingness, employees may engage in more impression-management behaviours to facilitate positive interactions with their supervisors or colleagues as a way to recover the sense of belongingness in the organization. Therefore, thwarted belongingness may act as the linchpin between breach and a wide array of employee behaviours, which have not yet been studied in psychological contract literature. This insight merits further investigation.

The second domain of future research pertains to exploring the role of time in the relationship between breach and states of thwarted need to control. The time frame issue may be associated with the unsupported proposal that thwarted need to control can be the psychological pathway from breach to violations. As aforementioned, the timing between breach and violation is under-examined and the short-term emotional responses can be the core of the feelings of violation (Conway & Briner, 2002). Individual's cognitive–motivational–affective interplay is complex (Lazarus, 2007), so if we want to fully capture the breach–control–violation interplay of employees, study designs such as a daily dairy (or experienced sampling), where employees can report the ratings on the same day (or right away) for their experience, will be needed. In this case, the relationship among breach, thwarted need to control, and violations can be analysed at a fine-grained level, answering questions such as whether the thwarted need to control after breach can predict the feelings of violation during the following day or whether it is the affection (i.e. contract violation) of the prior day that drives how employees evaluate their satisfaction of the need to control.

Finally, by emphasizing the decrease of OCBI, this study answers what employees will not do because of the impairment of regulatory functioning without responding to the question regarding what employees will do to cope with the regulatory crisis. In this study, the theorizing and hypothesis focused on how the state of thwarted need to control would lead to the change of employee behaviours, but did not address how employees would actively do something to change the thwarted need to control. As hinted at in first paragraph of this section, employees may engage in certain coping behaviours after

experiencing thwarted needs; for instance, increased impression management behaviour enhances the sense of belongingness. Tomprou et al. (2015) proposed a post-violation model to delineate the aftermath of psychological contract violation from the employees' perspective. Drawing on self-regulation and stress-coping perspectives, they suggest that the coping choices for violations will be contingent upon the perceived likelihood of violation resolution, such that the higher likelihood of violation resolution will be associated with problem-focused coping, and the lower likelihood of violation resolution will be associated with emotion-focused coping, mental disengagement, and behavioural disengagement. Moreover, the perceived likelihood of violation resolution will be decided by self-based resources, organizational resources, and perceived organizational responsiveness. Based on their conceptual proposal, I believe it will be insightful to delineate the "post-thwarted need to control model". When employees experience thwarted need to control, they will consider the personal and organizational resources to evaluate how possible it is to restore the thwarted need to control, which then influences what coping behaviours to use. All in all, future research should seek to reveal what and when the behaviours will be performed for the purpose of restoration of thwarted need to control for the employees who experience psychological contract breach.

6.6 Conclusion

As the final empirical chapter of this thesis, the present study discusses the proposed thwarted-control perspective of psychological contract breach and how unique it is. This chapter's findings replicate and extend empirical results from previous empirical chapters through simultaneous examination of alternative explanatory mechanisms of

psychological contract breach. The thwarted-control mechanism explains why perceptions of breach leads to employees' reduced OCBI beyond felt obligation, violation, or thwarted belonging. Moreover, given that reduced felt obligation has been the main intuitive reaction to breach while social exchange dominates the literature of EOR, this study further demonstrates that the sense of control is the underpinning reason of felt obligation. The evidence from this chapter suggests that in addition to cognitive calculation, emotional reaction, and the motivational state involving sense of belonging, the motivational state involving sense of control is unique for psychological contract breach, which reinforces the purpose of this thesis that thwarted need to control following perception of breach is valuable to investigate. This brings us to the synthesis of results across the three empirical studies with an overall reflection and discussion. I shall now turn to Chapter 7.

Chapter 7:

Overall Discussion

7.1 Chapter Overview

The previous three chapters have presented empirical results regarding how thwarted psychological needs, particularly the need to control, may serve as an important explanation for employee behaviours in response to their experience of psychological contract breach. This chapter aims to synthesize these findings by discussing their theoretical and practical contributions. This chapter begins with a succinct summary of the findings from each of the three empirical chapters. Next, I will discuss the overall significance of the contribution of this thesis. I will then discuss its practical contributions, its limitations, and directions for future research.

7.2 Introduction

This thesis aims to explore the neglected role of psychological needs in the motivational aftermath of psychological contract breach with a focus on psychological need to control. The three empirical studies in this thesis sought to explore how employees respond to breach behaviourally. Cumulatively, they explored whether thwarted need to control explain the relationship between psychological contract breach and OCB, and the role of employees' implicit theories of the EOR in this relationship.

As mentioned in Chapter 2, there are three research questions guiding this thesis overall. First, does a state of thwarted need to control operate as a mechanism to explain why psychological contract breach influence employee behaviours? Second, what are the roles of individual differences regarding employee behaviours via thwarted need to control? Third, does thwarted need to control provide a unique explanation for the relationship

between breach and employee behaviours compared to established theoretical underpinnings (e.g. social exchange and affective-event theories)?

Before discussing the overall significance and limitations of this thesis and directions for future research, I will first provide a succinct summary of each empirical chapter

7.3 Summary of findings of each empirical study

Chapter 4: Scenario-based experiments on psychological contract breach and need to control

Chapter 4 took the first empirical step of examining the role of need to control in psychological contract breach by utilizing a scenario-based experiment design. Based on two independent samples, Chapter 4 provided empirical support for the role of psychological needs following psychological contract breach. First, it demonstrated that psychological contract breach triggers a state of thwarted need to control. Second, it revealed that thwarted need to control after breach leads to a reduced intention to engage in OCBO and OCBI. Third, the desire for control was not found to influence the extent to which individuals experience thwarted need to control following a psychological contract breach. Through this experimental design, Chapter 4 contributes to this thesis by showing that thwarted need to control is one key pathway from psychological contract breach to employee behavioural intentions, offering a foundation for the two subsequent empirical chapters.

Chapter 5: Psychological contract breach, psychological need, and implicit theories of employee-organization relationship

Having established thwarted need to control as an important explanation of why breach can affect behavioural intentions, the subsequent chapter (Chapter 5) sought to establish whether this holds true in a field setting with actual OCB versus willingness to engage in OCB. At the same time, recognising that psychological contracts capture inducements and contributions in the employee and employer relationship, employees' implicit theories of the EOR may influence the extent to which breach triggers thwarted need to control that in turn influences the extent to which employees engage in OCB. Based on time-lag dyadic data, this chapter offers additional support for the finding that thwarted need to control explains why breach is associated with OCB. Thwarted need to control underpins the relationship between employees' perception of breach and their OCBO and OCBI as reported by their supervisors two months later. Furthermore, this chapter was the first study to consider the role of employees' implicit theories of EOR in psychological contract breach. The findings supported the argument that employees' implicit theories of EOR shape the effects of breach on thwarted need to control. Compared to people with incremental theories of EOR, those with entity theories of EOR were less likely to experience thwarted need to control following breach. Moreover, those with entity theories of EOR were also less likely to decrease their OCBO and OCBI after experiencing thwarted need to control following psychological contract breach.

Chapter 6: Exploring the uniqueness of thwarted need to control in the breach-OCB relationship

Having demonstrated that thwarted need to control is a key psychological pathway between psychological contract breach and OCB in a field setting, this chapter posed the question of whether thwarted need to control provides a unique explanation for the breach-OCB relationship. To demonstrate the unique contribution of the thwarted need to control explanation, I conducted an additional study that concurrently explored several explanations for the breach-outcome relationship. With the data from three points in time across six months (three months between time points), Chapter 6 demonstrated that thwarted need to control provides a unique explanation of the effect of psychological contract breach on OCBI compared to established theoretical underpinnings, including felt obligation, psychological contract violation, and thwarted belonging. Moreover, the explanation of thwarted need to control became the only valid pathway between breach and OCBI when the four theoretical explanations were considered simultaneously. The findings showed that thwarted need to control actually underpinned the relationship between breach and felt obligation, offering an explanation for why employees would reduce their felt obligations after experiencing a breach. Overall, chapter 6 further substantiated and extended the findings of previous chapters by not only confirming the importance of thwarted need to control to understanding employees' experience of breach but also demonstrating that thwarted need to control provided a unique explanation for employees' engagement in OCBI.

Having briefly reiterated the key findings from each empirical chapter, I will now discuss their overall implications.

7.4 Overall significance and implications of findings

In the following sections, I summarize the overall significance and implications of this thesis. The study makes three significant contributions, which I discuss in turn: (a) why breach matters, (b) the role of implicit theories and EOR, and (c) a lens of need to control to understand the nature of EOR.

Expansion on why breach matters

Motivational psychology suggested that the internal motives of human behaviours consist of three components: cognitions, emotions, and needs (Reeve, 2009). Psychological contract breach shapes employee behaviours through the lens of social exchange, focusing on the cognition of how obligated employees feel to reciprocate organizations. Affective-events theory emphasizes the impact of feeling emotionally violated. Aside from a conceptual discussion from Meckler et al. (2003), the role of psychological needs was surprisingly neglected in psychological contract literature. The downplaying of the role of psychological needs meant it "fail[ed] to account for critical forces that drive employee motivation and human behaviour" (Meckler et al., 2003, p. 218). The present thesis addressed this issue by adopting a perspective of thwarted need and investigating whether employees' need to control could explain the relationship between psychological contract breach and employees' behaviours. There are two reasons why the integration of thwarted need to control with the aftermath of psychological contract breach is important.

First, this thesis advances insights for understanding responses to psychological contract breach by showing that psychological needs offer an explanation for the breach-outcome

relationship. The need to control is a fundamental psychological need that maintains adaptive psychological functioning (Leotti, Iyengar, & Ochsner, 2010; Skinner, 1996), and the thwarted need to control is a breakdown of the motivational regulation (Skinner, 2016). From a thwarted-control perspective, psychological contract breach is a salient rupture of contingency between promises and delivered inducements, which triggers the thwarted need to control of employees. Thus, breach is a threat to the self-regulatory functions of employees, which causes employees to be occupied with self-regulation efforts, making them feel helpless in their organizations. By emphasizing the role of regulatory functioning, this thesis complements the motivational reasons of employee behaviours following psychological contract breach, which address the issue that breach has limited effect on behavioural outcomes (Conway & Briner, 2009). The experience of a breach is not a cognitive calculation or an adjustment of the balance of contributions between "me" and "my organization", nor is it an affective state characterized by negative emotions, such as violation. In fact, the experience of breach involves a motivational state in which employees ask themselves: Do I have a sense of control in the relationship with my organization? Am I an effective entity in this relationship? To put it differently, following a breach, the employee behaviours are motivated based on the answers to the three questions: How much do I owe the organization now? How do I feel emotionally towards the organization now? How much do I matter in this organization now?

Second, this thesis offers an explanation of why the impact of psychological contract breach may not be confined to interactions between employees and organizations. Based on a target similarity model of social exchange (Lavelle et al., 2007), an individual's social

exchange relationships with different parties are independent. A psychological contract breach from the organization would impact exchanges with an organization, but not with any other party, such as co-workers or customers. With this assumption, most studies on breach consequences focus on organization-targeted outcomes, such as organizational commitment (Cassar & Briner, 2011; Lapointe et al., 2013), organizational identification (Epitropaki, 2013; Zagenczyk et al., 2013), organizational trust (Lapalme et al., 2011; Rigotti, 2009), turnover intention (Orvis et al., 2008; Suazo et al., 2005), and OCBO (Lo & Aryee, 2003; Robinson & Morrison, 1995). However, empirical evidence suggested that a target similarity model may not always hold true for psychological contract breach (Bordia et al., 2010; Chen et al., 2008; Suazo & Stone-Romero, 2011). The findings of this thesis also demonstrated that breach from organizations can actually influence employees' OCBI.

There has been limited theoretical work to explain why breach sometimes influences relationships with parties other than organizations, or why breach may spill over (Conway et al., 2014) to other social exchange relationships. By emphasizing the thwarted-need perspective, this thesis demonstrates a key reason for why breach has spill-over effects. When we focus on thwarted need to control, we emphasize employees' self-regulation rather than their thoughts about or emotions towards their organizations. Therefore, we can explain how perceptions of breach by organizations may potentially shape employees' behaviours in other domains. It is very likely that when employees experience breach and thwarted need to control because of organizations, they start to engage in behaviours that can restore their sense of control in interpersonal or family lives. The breach from the

organizations may trigger employees to change their behaviours in other relationships to restore control.

Following this argument, thwarted need to control might also offer an alternative explanation to three areas of developing research: (a) the relationship between work-family conflict and EOR, (b) the trickle-down effects of breach, and (c) the differences in spill-over effects. This thesis addresses the emerging attention on the relationship between EOR and work-family conflict. As Kossek and Ruderman (2012) stated, work-family relationships should be incorporated into the EOR because "having positive work-family relationships has critical social meaning for the changing employment social contract of working life" (Kossek & Ruderman, 2012, p. 223). For example, Courtright, Gardner, Smith, McCormick, and Colbert (2016) used ego-depletion theory to demonstrate that supervisors' work-family conflicts increase abusive supervision toward subordinates, as work-family conflicts drained their resources to suppress their aggressive impulses. Similarly, Lemmon, Westring, Michel, Wilson, and Glibkowski (2016) demonstrate the downside of idiosyncratic deals, such that the receipt of idiosyncratic deals was positively linked to work-family conflicts. This association is explained by that receipt of idiosyncratic deals heightened the fear of leaving current organizations (i.e. the fear of losing the idiosyncratic deals) which in turn drained their resources to handle family stressors. These ideas and evidence demonstrated the importance of addressing the relationship between EOR and work-family conflict. The state of thwarted need to control may play a role in that employee's regulation and restoration of their needs to control can explain why work-family conflicts may link to EOR and vice versa. To illustrate,

managers' work-family conflict may trigger their sense of thwarted need to control, which in turn motivates them to engage in more abusive supervision behaviours toward their subordinates. It has been argued that aggressive behaviours increase senses of control (Stephens & Ohtsuka, 2014). This thesis provides a nuanced foundation for the integration of EOR with work-family conflict.

Second, thwarted need to control potentially offers an alternative explanation of the trickle-down effect of psychological contract breach. Bordia, Restubog, Bordia, and Tang (2010) conducted a study with a sample of supervisor-subordinate dyads in which they explored whether supervisors' perceptions of breach by their organization impacted their subordinates' contributions. They demonstrated that when supervisors perceived greater breach, their subordinates received lower customer satisfaction scores, suggesting fewer contributions from subordinates. That is, the supervisors' perceptions of breach impacted the work performance of their subordinates. With the idea of a social exchange trickle-down effect, the authors theorized that supervisors reduced their OCB towards their subordinates to rebalance their relationships with their organizations, which in turn led to psychological contract breach of subordinates who lowered their own OCB towards customers. In this thesis, the thwarted-control perspective offers an alternative explanation for why trickle-down effect may exist. It is likely that the aforementioned trickle-down effect comes from a chain of thwarted need to control: supervisors' breach → subordinates' breach → customers' breach. In detail, breach perception of supervisors deprives their sense of control in the organization, and they become more controlling to their subordinates in order to regain their own sense of control. Hence, the subordinates'

sense of control is threatened, which makes them occupied with self-regulation challenge so as to decrease the quality of work for the customers.

The two paragraphs above discuss the "why" of psychological contract breach spill-over effects, and this thesis contributes to understanding the "who" of breach spill-over effects. Conway et al. (2014) conducted research in the public sector and found that psychological contract breach impacts OCB towards organizations, but not OCB towards co-workers or public service users, indicating no spill-over effects. However, if job security is low, the influence of breach spills over to employees' OCB towards public service users. As such, the authors stated that "future research should also examine conditions when spillover is more or less likely to occur" (Conway et al., 2014, p. 749). This thesis addresses this call by considering implicit theories of EOR as differences between employees who will or will not experience spill-over effects following breach. The findings demonstrated that individual differences in what employees believe about the malleability of EOR can be a strong factor in determining whether breach from organizations spill over to OCB towards other people. Following a breach, individuals with an entity view will be less likely to reduce their OCBI in response.

Bringing implicit theories into EOR

This thesis furthers the understanding of the interplay between implicit theories and EOR. The role of implicit theories in psychological contracts has been underexplored. This thesis integrates implicit theories and psychological contracts by arguing that employees' implicit theories of EOR can shape behavioural reactions to psychological contract breach.

This integration offers insights to both the literature of EOR and of implicit theories. First, this thesis contributes to EOR literature by showing the crucial role of individual differences in EOR beliefs (i.e. implicit theories of EOR). Second, this thesis contributes to the literature of implicit theories by demonstrating implicit theories also matters in the context of EOR.

This thesis also highlights the importance of focusing on employees' belief systems in the relationship between EOR and employee behaviours. Researchers have emphasized the value of studying how individual differences shape behavioural reactions to their EOR experience (Restubog et al., 2007; Suazo et al., 2011; Turnley et al., 2003). To illustrate, previous research identified that agreeableness and conscientiousness can amplify the negative effect of breach on OCB, whereas empathetic concerns can mitigate their effects (Shih & Chen, 2011; Shih & Chuang, 2013). Similarly, the cultures of individualism and collectivism shape relationships between LMX and OCB in that positive relationships are stronger for more individualistic employees (Rockstuhl, Dulebohn, Ang, & Shore, 2012), and traditionalism shapes the relationship between idiosyncratic deals and OCB in that positive relationships are stronger for employees who are lower in traditionalism (Huo, Luo, & Tam, 2014). Overall, extant research on the role of individual differences in EOR has focused on personality traits or cultural factors, which reflects the importance of understanding who the employees are in this relationship. By emphasizing the role of implicit theories, this thesis further reflects the importance of understanding what employees believe about their relationships. In other words, the attempt to underscore the importance of implicit theories in EOR reminds us that employees come into their

relationships with pre-existing belief systems. Employees are not blank pages waiting for information, as they possess some basic assumptions regarding how an EOR can or cannot be controlled, which then shapes how they interact with their organizations.

In addition to the insight on how implicit theories can shape the relationship between EOR and employee behaviour, this thesis highlights the potential importance of exploring employees' general beliefs towards EOR. In literature about intimate relationships, drawing from the cognitive-behavioural model, Sullivan and Schwebel (1995) suggested that the beliefs one brings into an intimate relationship will influence one's feelings, thoughts, and behaviours in that relationship. This suggests that employees' experiences in the EOR are derived from what kind of EOR belief system they have, offering a great opportunity for us to ask how belief systems influence employees' EOR experiences. Moreover, clinical psychologists distinguished five irrational intimate relationship beliefs: awfulizing, self-directed *should*s, other-directed *should*s, low frustration tolerance, and low self-worth (Kassinove, 1986), and provided empirical evidence that irrational intimate relationship beliefs impact relational satisfaction, coping with relational problems, and marital adjustments (Metis & Cupach, 2006; Möller & van der Merwe, 1997; Möller, Zyl, & Deon, 1991; Sullivan & Schwebel, 1995). This idea of irrational belief opens the door for more discussion about employees' EOR belief systems. For example, if an employee possesses more irrational relationship beliefs towards EOR, such as "the organization should understand the pressures the employees are under" (other-directed *should*), or "being inadequate in the organization would reduce my worth as an employee" (low self-worth), are they more vulnerable to negative events in the EOR?

This thesis contributes to the literature of EOR by valuing implicit theories and employees' general belief systems towards EOR. Furthermore, it also contributes to the literature of implicit theories by showing that implicit theories matter in the context of EOR. Implicit theories are derived from the research area investigating how personalities predict academic achievements. Researchers conducted studies of implicit theories to explain the development of individuals' motivations to learn. Although some researchers have addressed the role of implicit theories in intelligence and in people in organizational settings (e.g. Heslin, Vandewlle, & Latham, 2006; Murphy & Dweck, 2010), discussion of implicit theories in organizations has been very limited. To the best of my knowledge, this thesis is the first empirical examination of implicit theories in the context of EOR. This thesis links implicit theories to an important EOR process—the breach-outcome relationship—by proposing that implicit theories of EOR affect this relationship through its effect on thwarted need to control. It also offers theoretical advancement by indicating that employees' implicit theories are not confined to human learning and motivations, which opens the door to explore how employees' implicit theories may affect their goals, attributions, evaluations, coping, and interpretations in the context of EOR.

In addition, this thesis also contributes to the development of implicit theories by investigating two under-examined topics: the implications of psychological needs on implicit theories and the interplay between implicit theories and events. First, this thesis demonstrates that implicit theories matter because of its impact on psychological need pathways. Explanations of why implicit theories have an impact on individuals have relied

heavily on attribution theory (Weiner, 1979). Entity theorists are said to be different from incremental theorists in terms of attribution in that they tend to attribute negative events to less control and more stability, whereas incremental theorists attribute negative events to a lack of effort and cultivation (Knee, Patrick, & Lonsbary, 2003). The differences in behavioural patterns between the two has been explained through cognitive mechanisms. For example, it has been found that implicit theories of intelligence impact coping strategies via cognitive attribution (Hong et al., 1999), and that implicit theories of emotion impact well-being via cognitive appraisal (De Castella, Goldin, Jazaieri, Ziv, Dweck, & Gross, 2013). Going beyond the cognitive mechanism, this thesis suggests implicit theories potentially affect psychological needs mechanisms. Implicit theories may prepare individuals with different expectations of psychological satisfaction, which may in turn shape their psychological need states and behavioural patterns.

Second, this thesis goes beyond previous implicit theories studies by adopting an interactionist approach (Tett & Burnett, 2003), which proposes that individual's behavioural actions are derived from interactions between personal dispositions and situational cues. So far, implicit theories have been treated as an individual difference that directly shapes individuals' attitudinal and behavioural outcomes without any explicit consideration of how implicit theories may interact with external events. For instance, previous research has demonstrated that managers' incremental theories of people can foster coaching behaviours with their subordinates (Heslin et al., 2006), but we do not know how incremental theory actually functions when subordinates ask managers for help; similarly, entity theories of intimate relationships have been revealed as increasing the

possibility of relationship violence (Cobb, DeWall, Lambert, & Fincham, 2013), but it remains unclear how entity theory may come into play when partners perceive disagreement. This thesis offers a clear situational cue (i.e., the psychological contract breach) to show when implicit theories might influence employee behavioural outcomes. Instead of only depicting which implicit theories may increase or decrease employee OCB, this thesis also demonstrates that employees' implicit theories of EOR can interact with breach by buffering negative implications of breach on thwarted need to control. This interactionist approach to employee behaviours is important because it emphasizes that interaction between both parties in an EOR determines how employees behave. No single party has the absolute power to shape an EOR.

A lens of need to control to understand the nature of EOR

The theory and evidence comprising this thesis also have important implications for additional understanding of *relationship* in the EOR literature. By focusing on employees' psychological needs, particularly their need to control, this thesis offers a new lens through which to view relationships between employees and organizations. Shore et al. (2004, p. 322) stated that "the term 'relationship' involves the condition of being connected and associated together". Because the EOR is predominantly grounded in social exchange theory, the understanding of how employees and organizations are connected focuses on "exchange of resources"; the EOR is a channel for the exchange of materials and social resources (Liu, Lee, Hui, Kwan, & Wu, 2013). The current thesis contributes to the EOR literature by demonstrating how employees' need to control connects them to their organizations. It also hints that relationships between employees

and organizations may not only be defined by answering the question of "Do you have the resources I want in my life?", but also "Can you maintain the sense of control I need in my life?" Therefore, for employees, the quality of the EOR should not be reflected solely through how well organizations provides wanted resources, but also by whether employees feel effective as agents of influence in their organizations.

The focus on psychological needs offers an additional view of the motivational aftermath for employees in the EOR. The perennial question in motivational psychology is how an individual begins, continues, and stops behaviours (Reeve, 2009). Perspectives of psychological needs can help delineate alternative stories regarding initiation, persistence, and termination of EOR, which is distinct from social exchange theory. Based on the traditional social exchange perspective, employees start EORs because they expect inducements. They believe that organizations will provide inducements in exchange for contingent contributions. Upon receipt of expected inducements, employees maintain this EOR, hoping to receive inducements from their organization in the future. When employees perceive that expected inducements from their organization is not likely, they are likely to terminate their EOR. A psychological needs perspective provides a distinct motivational story. Employees look for satisfaction of psychological needs to grow and thrive. They seek this actualization in their organizations, and they maintain their EOR when their psychological needs are satisfied by positive interactions with their organization. However, when employees find threats to the satisfaction of their psychological needs in organizations, they experience thwarted needs and may choose to end their EOR to avoid prolonged threats to their psychological needs. In brief, integrating

a psychological needs perspective enriches the understanding of the nature of EOR relationships. This thesis addresses the call made by Shore, Coyle-Shapiro, and Tetrick (2012) to address the major gaps regarding the relationship aspects of the EOR in current literature, "putting the 'R' back in the EOR" (Shore et al., 2012, p. 12).

In addition, the focus on the need to control in this thesis complements the emphasis on the need for belonging in EOR studies, which has been the major type of psychological need considered in research concerning the role of psychological needs in the EOR. Positive EOR, such as high LMX, satisfy employees' need to belong and enable employees to grow in their organizations (Wayne, Shore, & Liden, 1997); negative EOR, such as low POS, thwarts employees' need to belong and leads to negative employee consequences (Ferris, Brown, & Heller, 2009). By focusing on the need to control, this thesis suggests that the EORs are defined by more than just the need to belong. The findings in this thesis provide fresh insights by demonstrating the importance to acknowledge that employees need to experience the satisfaction of their need to control in their relationships with organizations. Employees hope to feel like effective entities in addition to feeling oneness with their organizations. That is, to fully understand the relationship aspect of EOR, the focus must be on employees' sense of control in their interactions with their organizations.

7.5 Practical implications

This thesis has a number of practical implications, especially for the management of the breach-outcome relationship. First, organizations should aware that belief systems

influence how employees respond to breach. Second, employees' senses of control should be repaired after breach. Finally, organizations should emphasize the psychological needs of employees to facilitate positive EORs.

Incremental theorists' reactions to breach

The original version of implicit theories argued that entity and incremental theory were merely different neutral mindsets, without any definitive positive or negative implications (Dweck et al., 1995). However, the accumulated literature leans towards the suggestion that incremental theorists are more apt to adjustment across domains of interest. Individuals who possess incremental theories of emotion experience less psychological distress and, generally, less affective symptoms (Castella, Goldin, Jazaieri, Ziv, Dweck, & Gross, 2013; Tamir et al., 2007), and individuals who hold incremental theories of intimate relationships are better at coping and have less violence in their relationships (Cobb, DeWall, Lambert, & Fincham, 2013; Knee, 1998). Following this line of thought, we would expect that employees who are entity theorists would need more attention and care from the organization. However, this thesis suggests otherwise. Two empirical chapters with independent research samples offer convergent yet surprising evidence: those who hold incremental theories of EOR suffer more in the context of psychological contract breach. The findings in this thesis suggest that employees with incremental theories of EOR are more likely to reduce their OCBs when their need to control is thwarted, revealing an important strategic recommendation to managers of organizations. Managers should be aware that employees' beliefs of EOR will influence how employees respond to psychological contract breach. Specifically, managers have to be careful that

employees' incremental theory may be detrimental in their interactions with the organization. Employees who hold positive views of malleability and flexibility in EOR may not have positive reactions to negative EOR events. It is very likely that they are at risk for more psychological impact and less positive behavioural responses in perceived episodes of breach.

Repair the sense of control after breach

By unravelling thwarted need to control as an explanation for the consequences of breach, this thesis unlocks a key piece of the puzzle of what to repair to prevent negative consequences of breach. To the extent that regulation of sense of control is a key underlying driver of OCB, this thesis sheds light on the importance of maintaining employees' OCB after breach by offering them a sense of control. That is, organizations should implement human resources policies and practices that can increase employees' sense of control to mitigate the negative impact of breach. Yoon, Han, and Seo (1996) suggested three processes that organizations should engage in to increase employees' sense of control. First, organizations should emphasize employee's choice processes, as the "sense of control is a consequence of exercising greater choices" (Yoon, Han & Seo, 1996). Concrete measures can be taken by organizations to achieve this. For instance, managers can facilitate job redesign (Hackman & Oldham, 1975) plans, such as job enrichment, to reduce the routinization of employees' work. Second, empowerment may help restore a sense of control because positive evaluations and approvals from others at work can increase employees' sense of control. With this logic, increased support from co-workers, supervisors, and organizations will be needed to empower employees to

regain their sense of control. Finally, some job stressors such as role ambiguity, role conflict, and work overload (Kahn, Wolfe, Quinn, & Rosenthal, 1964) have been demonstrated to reduce employees' sense of control, so the removal of these stressors can also be a way to buffer loss of control.

What do employees need in EOR?

Motivational psychology suggested there are three components of motivation: cognition, emotion, and psychological needs (Reeve, 2009). Based on the EOR literature regarding the interplay between EOR and employee motivation, it is not difficult for managers to approach the cognitive and emotional components, but attention has been relatively limited regarding the role of psychological needs. This thesis offers preliminary evidence of the important role of psychological needs in the EOR and reflects the significance of valuing psychological needs in the management of EOR by human resources practice. Other than investing resources in facilitating positive appraisals at work or offering emotional support, another aspect that managers should focus on is whether employees' psychological needs are being satisfied. This thesis demonstrates that the need to control can be threatened by negative experiences in the EOR. Managers should show their concerns for employees based not only on how they think and how they feel, but also on how much they can experience a sense of control at work. Moreover, psychological needs other than the need to control—such as the need to belong or the need for existence— should also explored in EOR. Based on the empirical findings in Chapter 6, in addition to thwarted needs for control, psychological contract breach can also trigger thwarted needs to belong. Furthermore, when an EOR deteriorates, it poses a threatening message of

invisibility and unworthiness to the employee, potentially thwarting the fundamental need for existence (Alderfer, 1972). Managers should emphasize the understanding of employees' various psychological needs to improve the management of EORs.

7.6 Limitations

There are at least three unsolved challenges in this thesis. Conceptually, contextual factors were downplayed in the empirical studies. Methodologically, the data source for the OCBI measures and the lack of intensive longitudinal design restricted the demonstration of causality. In addition, the samples in the two field studies (Study 2 & 3) were both Taiwanese, which limited the generalisability of the research findings. These limitations will now be discussed in turn.

The impact of contextual factors

As mentioned in Chapter 2, individual and contextual factors shape the breach-outcome relationship. In the three empirical chapters, the role of individual differences was examined in the relationship between breach and OCB via the mechanism of thwarted need to control; however, the role of contextual factors was not demonstrated. Current literature suggests that contextual factors, such as organizational policy or organizational culture, shape how employees react behaviourally to psychological contract breach (Chao et al., 2011; Jensen et al., 2010). It is very likely that power distance, as an element of organizational culture, influences the relationship between breach and thwarted need to control. When power distance is greater, employees may have lower levels of expected control in their organizations. After perceived breach, those employees in high power

distance cultures experience smaller gaps between expected and actual levels of control, which leads to less thwarted need to control and less impact on their OCB. Consideration of contextual factors should receive equivalent attention to individual differences how needs are thwarted after psychological contract breach.

The data source of OCBI measures

OCBI refers to the actions of helping someone with their work and showing care for colleagues (Lee & Allen, 2002), so it was logical to expect that co-workers to be crucial sources of OCBI observation. Based on self-reported data and data from supervisors, this thesis covers two sources of OCBI to address concerns of same-source common method variance (Podsakoff et al., 2003). However, there were no data from the source of co-workers for OCBI. Self-reported OCBI may be risky due to social desirability concerns, and supervisor-reported OCBI can be inaccurate when supervisors do not have chances to carefully observe employees' OCBI (Chan, 2009). However, it should be noted that the issue of the source of OCBI may not be an overwhelming problem to findings here. Carpenter, Berry, and Houston (2014) conducted a meta-analysis to compare self-rated OCB data and OCB data rated by others. Although levels of OCBI reported by focal employees were higher than the levels reported by co-workers, they found no statistical mean differences between the two, so they concluded that "over-reporting by self-raters may not be a large concern for OCB" (Carpenter, Berry, & Houston, 2014, p. 564).

Intensive longitudinal analysis needed

The lack of longitudinal studies in psychological contract literature has long been a salient issue (Zhao et al., 2007). Research on breach has been static due to the historically dominant approach of using cross-sectional designs (Conway & Briner, 2009), which assumed that employees reciprocate quickly after the perceptions of breach (Ng et al., 2010). That is, most empirical examinations in this field only revealed the associations between the constructs, without demonstrating the potential causal direction between them. The empirical studies in this thesis adopted the time-lag design between breach and employees' OCB to address the limitations of cross-sectional breach-outcome relationship studies. Furthermore, in Chapter 6, the baseline OCBI was also considered to further reduce the bias from employees within individual differences.

That said, this thesis may not offer sufficient knowledge regarding the process between breach and employee consequences which may be dynamic and unfold over time. Specifically, this thesis does not hold answers to the question of how breach-behaviour relationships unfold over time. Do states of thwarted need to control rise and engagement of OCB decline as perceptions of breach strengthen? Does the decline in OCB actually impact future implicit theories? Incremental employees expect more control, so they react more negatively to breach by decreasing their OCB. Because of that, over time, it is more difficult for them to facilitate positive interpersonal relationships in their organizations. These incremental employees may actually experience negative spirals in which they feel less control in their organizations. In the longer term, will incremental employees become entity employees? Intensive longitudinal design is needed to explore employees' motivational trajectories over time after the experience of breach. As an illustration, if

there are multiple waves of data for breach, thwarted need to control, and OCB, latent growth modelling (Bliese & Ployhart, 2009) can be applied to empirically demonstrate how these factors evolve over time. Future studies can advance the research design to unpack how psychological contract breach unfold over time (Ng et al., 2010).

Generalisability of the research findings

Another limitation is that both field studies (Study 2 and 3) were based from samples collected only in Taiwan, so the generalisability to other cultural settings remains a question. The psychological contract literature suggests that cultural elements may be significant (Chen et al., 2008; Ravlin, Liao, Morrell, Au, & Thomas, 2012). Culture is regarded as the foundation of an individual's cognition and motivation, so the formation of and the outcome of the employee's psychological contract should be affected by cultural elements (Chen et al., 2008; Zhao & Chen, 2008). Several studies have indicated the necessity to systematically examine the formation, outcome, and explanatory mechanism of psychological contract through cultural lens to provide better account for employee's psychological contract process (Thomas et al., 2010). To date, empirical evidence on psychological contracts has been accumulated in different cultural settings (North America, Australia, Europe, Asia and Africa) yet the generalizability of findings across cultures has received scant attention. Although, in Study 1, the findings based on experiment design suggested that breach triggers thwarted need to control in both Taiwanese and US sample, the extent to which the thwarted-need perspective of breach is generalizable to other cultures in field settings should receive attention in future studies.

7.7 Suggestions for future research

As there is still much to learn about the role of need to control in the EOR, there are four directions that future research could take: (a) the reciprocal relationship between breach and thwarted need to control, (b) the robustness of the thwarted-need perspective, (c) regulation of thwarted need to control in psychological contract breach, and (d) integration of psychological needs and psychological contracts.

The reciprocal relationship between breach and thwarted need to control

The rationale of the current thesis was based on the perception that breach evoke changes in psychological need states, strongly implying that the breach experience precedes states of thwarted need to control. However, the nature of this process may be more complex, and the studies comprising the present thesis do not reveal the potential unfolding and reciprocal relationship between breach and thwarted need to control. One pivotal premise is that there are many antecedents of thwarted need to control for employees in addition to psychological contract breach. For example, previous research has shown how workplace ostracism and experiences of injustice can also trigger thwarted need to control (Cropanzano et al., 2001; Gerber & Wheeler, 2009). A sense of control is essential to maintaining a psychological contract. Without that sense of control, employees' psychological contracts become fragile. Therefore, thwarted need to control may also influence the psychological contract, which in turn dampens the perceptions of breach. Specifically, there are two plausible theoretical paths to discover how the state of need to control can shape breach experiences, fostering a number of avenues for future research.

First, regardless of the reasons, when employees experience thwarted need to control in their organizations, they are likely to be more vulnerable to psychological contract breach, as thwarted need to control increases employees' vigilance and attention to interactions with their organizations, which in turn increases the likelihood that employees will perceive breach. Thinking back to the conceptual model of psychological contact breach (Morrison & Robinson, 1997), the authors suggest perceived unmet promises, defined as "a discrepancy between an employee's understanding of what was promised and the employee's perception of what he or she has actually received" (p. 231), as preceding perceived breach. Morrison and Robinson (1997) suggested that research should unpack the conditions that lead employees from unmet promises to perceived breach. In spite of this suggestion, very little research has been conducted to understand how perceived breach develops and is influenced. The thwarted-control perspective of this thesis may further address this issue. When employees experience thwarted need to control in their organizations, they may actually be motivated to actively look for discrepancies between what they have been promised and what they have received. It is very likely that employees perceive breach more easily when they experience states of thwarted need to control in their organizations. This hints that thwarted need to control can further impact the perception of breach and open doors for inquiry into how the state of psychological needs may actively shape the perception of breach.

Second, thwarted need to control may also shape psychological contract breach through the process of anticipating breach. Shapiro and Fugate (2012) proposed a model of anticipatory justice in which prior justice influenced employees' anticipatory justice,

which then influenced subsequent perceptions of justice. Based on the foundation of confirmatory bias and the halo effect (Ilgen & Feldman, 1983; Snyder & Swann, 1978), they argued that the more employees anticipated justice, the more they perceived justice. Regarding the focus on psychological contract breach, it is very likely that employees have the following process: previous breach → anticipated breach → perceived breach. The thwarted-control mechanism that this thesis emphasizes may underpin this process. In the theory of learned helplessness, Abramson, Seligman, and Teasdale (1978) stated that experiences of non-contingency bring expectations of future non-contingency. This helps explain how previous breach may lead to anticipated breach and perceived breach. Previous breach (non-contingency) thwart the need to control and forms anticipated breach (expectation of future non-contingency), which further dampens the sense of control, increasing the likelihood of perceived breach. Future research should investigate whether thwarted need to control shapes perceived breach through the process of anticipating a breach to counter one major limitation within this domain: "a chief limitation of existing literature is the emphasis on the past and present (what has been given and received in the EOR), without consideration of the role of the future, specifically, the anticipatory appraisals" (Shore et al., 2012, p. 580).

Robustness of the thwarted-need perspective in breach

A second future direction is to examine the robustness of the thwarted-need perspective in breach. Although this thesis finds consistent empirical results that suggest breach leads to thwarted need to control which in turn reduces OCB, with implicit theories of EOR shaping this process, it does not answer whether the thwarted-need perspective holds true

when we consider alternative psychological needs, employee behaviours, or individual dispositions. This limitation can be addressed by expanding the research model to include other theoretically plausible constructs. Specifically, there are three questions to be answered: In addition to implicit theories of EOR, what other individual dispositions can shape the thwarted-control mechanism? Is the need to control the only psychological need threatened after breach experiences? Other than OCB, what are the other behavioural consequences influenced by a state of thwarted need to control? Answering these questions is important because it would help determine how robust the proposed thwarted-need perspective is regarding psychological contract breach.

To illustrate, we will go back to the motivational psychology of individuals and explore other individual differences in the thwarted-need perspective. Because the proposed model punctuates the role of regulatory functioning in terms of thwarted need to control, it is important to integrate individual differences of regulatory focus into the thwarted-control mechanism of psychological contract breach. The regulatory focus, or the approach-or-avoidance orientation, implies very different motivational orientations for individuals and their expectations of control. Individuals who possess high approach motivation put effort into getting rewards, while individuals who hold high avoidance motivation make every effort to avoid punishment (Tory, 1997). As Elliot (1999) states: "approach and avoidance motivation differ as a function of valence: in approach motivation, behaviour is instigated or directed by a positive/desirable event or the possibility; in avoidance motivation, behaviour is instigated or directed by a negative/undesirable event or possibility" (Elliot, 1999, p. 170). Thus, individuals more

oriented towards avoidance have lower estimations of the controllability of events (Judge, Erez, Bono, & Thoresen, 2002). The regulatory focus of employees is a very promising individual difference that could be explored in future research.

Regulation of thwarted need to control in psychological contract breach

One of the major purposes of this thesis was to uncover the role of regulatory functioning after breach experiences by focusing on regulation of employees' need to control to counter the overwhelming emphasis on rational calculation. From the cybernetic view of self-regulation, a complete regulation cycle should consist of four components: input status, preferred status, comparator mechanism, and output for minimizing gap. This thesis suggests that employees have their own preferred levels of control in their organizations (determined in part by implicit theories of EOR), and comparing the gap between preferred and actual levels of control forms a state of thwarted need to control. That is, this thesis has covered the preferred level and the comparator mechanism, but did not discuss the determinants of input levels or the output to minimize gaps.

The input status of control (the perceived actual level of control) is derived from a subjective judgement of breach. Therefore, if two employees with identical preferred levels of control experience the same breach event, a gap (degree of thwarted need to control) might still exist because they may have different interpretations of how much perceived control they had regarding the breach. A great number of factors can influence the how employees think about their levels of control due to breach. For example, the predictability of the breach may serve as one determinant. Well-documented literature has

suggested that predictability is powerful in shaping an individual's social perception (Weinberg & Levine, 1980; Wilder, 1978). The predictability of a breach is related to whether an employee anticipates that certain promises made by an organization are likely to be broken. Compared to employees who do not anticipate breach in their psychological contracts, employees who do have more resources to deal with them and more positive expectations of the future, as there is more time available to proactively cope with potential negative impacts (Aspinwall, 2005). Therefore, when the predictability of a breach is high, it leads to a smaller gap between preferred and actual levels of control and less thwarted need to control. Future research can explore the factors that shape employees' interpretations of breach in terms of perceive levels of control to fully delineate what comes ahead of the thwarted-need comparison mechanism.

Second, regulation does not stop at the gap in the comparator mechanism. After gaps are perceived, individuals try to minimize them to release tension or to restore the state of thwarted needs. The strategies to restore thwarted needs are twofold. First, individuals engage in primary regulation to regain and re-establish control by changing environments into what they need. The other strategy is secondary regulation, which refers to attempts to change the self to fit the environment (Heckhausen & Schulz, 1995; Rothbaum, Weisz, & Snyder, 1982). In other words, to restore thwarted need to control, employees either try to increase their actual levels of control (primary regulation) or decrease their preferred levels of control (secondary regulation). The distinction between primary and secondary regulation offers clear avenues to be explored: What can an employee do to achieve a higher level of actual control after a breach? What can an employee do to reduce his or

her preferred level of control after a breach? Is primary or secondary regulation more functional for employees and organizations in terms of the consequences of breach? Which employees tend to choose primary or secondary regulation to restore their thwarted need to control after breach? Can organizations contextually influence employees' restoration strategies after breach? It is imperative for future research to answer these questions and address the call from Conway et al. (2011): "future research should consider proactive repair of breach by organizations" (p. 274).

In this thesis, OCB has been demonstrated as decreasing due to states of thwarted need to control triggered by psychological contract breach. Following the idea of restoration, this thesis triggers another question: What is the role of OCB in the restoration process of thwarted need to control? In research model in this thesis, thwarted need to control triggered by breach led to decreased OCB, as employees were in states of helplessness and regulatory impairment, meaning they lacked a sense of control and motivation to help others. In fact, how others react to the reduced OCB may actually play a role in the regulation of thwarted need to control. In other words, after employees decreased their OCB, reactions from co-workers may actually affect employee's restoration of thwarted need to control. It is possible that employee feel a sense of control at work when colleagues or managers actively ask the employee about it, as this sends a message to the employee that their decreased OCB makes a difference to other people at work. If colleagues or managers do not acknowledge the difference, it is another threatening signal to the employee: the organization and the people around feel nothing when I stop doing favours for them. Finally, if managers actually attribute decreased OCB to mistreatment

from the organization (i.e. breach) and acknowledge the breach to employees, can this actually restore decreased OCB? Lemoine, Parsons, and Kansara (2015) investigated whether feedback regarding OCB from managers and peers actually shaped future OCB of employees. Their results demonstrated that positive feedback can increase motivating factors of OCB, such as prosocial values, organizational concerns, and impression management (Rioux & Penner, 2001), which in turn predicted OCB 10 weeks later. Moreover, they also found that feedback was more powerful when it came from peers rather than managers. Following Lemoine et al.'s (2015) idea, future research could investigate how feedback from others about OCB can function to restore thwarted need to control after breach? Is feedback from managers about breach more powerful due to their role as representative of the organization?

Integration of psychological needs and psychological contracts

Although the focus of this thesis was on psychological contract breach, this thesis also contributes to future direction of psychological contracts. As reviewed in Chapter 2, aside from breach of the psychological contract, the other strand of research in this field concerns the formation of psychological contracts. Very little is known, however, about how the formation of psychological contracts interplays with breach of psychological contracts (Conway & Briner, 2009). Based on the perspective of psychological needs, this thesis can actually help further explore this gap in the literature. Specifically, the two-process view on psychological needs (Sheldon, 2011) can be utilized to build the integrated process model from formation to breach of psychological contracts. Here, I start with a brief introduction of the two-process view of psychological needs in

psychological contracts and describe how it can reveal the interplay between formation and breach of psychological contracts, as conceptually depicted in Figure 7.1.

Figure 7.1. A Model for The Integration of Psychological Contact and Two-Process View of Psychological Needs
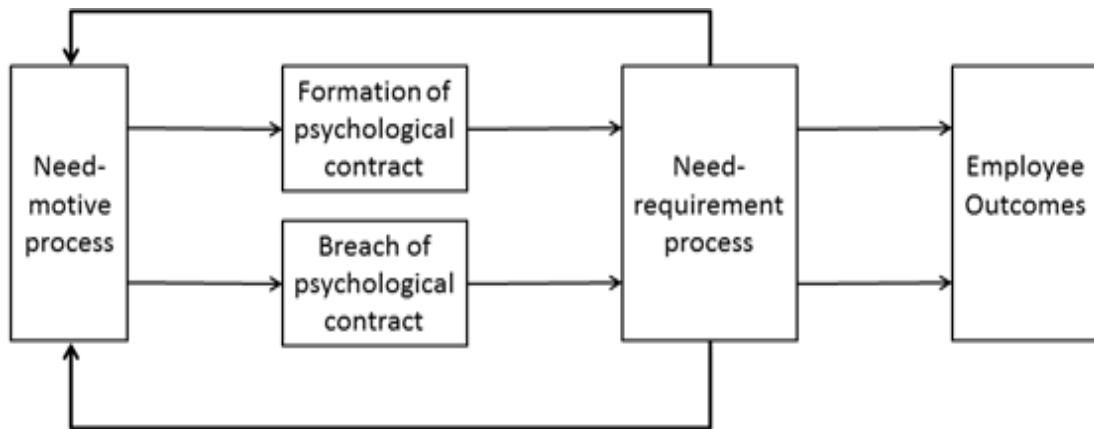
The two-process view on psychological needs (Sheldon, 2011) distinguishes the need-motive process from the need-requirement process: the need-motive process demonstrates how an individual seeks out certain basic types of psychosocial experience, whereas the need-requirement process captures how an individual can change and thrive due to certain types of need-satisfaction experiences. Simply put, the need-motive process delineates a reason for why individuals start actions based on their psychological needs. The need-requirement process, on the other hand, explains a consequence—how individuals are influenced by events based on their psychological needs. This two-process view on psychological needs can be integrated with the psychological contract process, both in the formation of psychological contracts and in psychological contract breach. The need-motive process helps explain the start of psychological contract formation and breach. It

explains why employees are energized to seek and form the content of psychological contracts and how dispositional drive could influence perceptions of psychological contract breach. On the other hand, the need-requirement process helps explain the influence of psychological contract formation and breach: It shows that the formation of psychological contracts could bring need-satisfaction, which in turn could influence employees' adaptation to their organizations and that psychological contract breach could thwart need-satisfaction, leading to outcomes. In brief, employees' need-motive processes activate psychological contract processes, and psychological contract processes trigger employees' need-requirement processes, which in turn contribute to employee outcomes in the organization.

The integrated process model in Figure 7.1 provides a plausible way to re-emphasize the roles of needs in underpin psychological contract processes. This addresses the calls to investigate psychological contracts as continuing processes and to integrate psychological needs into psychological contract literature (Conway & Briner, 2009; Meckler et al., 2003; Taylor & Tekleab, 2004). By emphasizing both the need-motive process and the need-requirement process, this model provides two directions for future inquiries: How does the need-motive process shape the formation and breach of psychological contracts? How does the need-requirement process shape the formation and breach of psychological contract?

For example, other than the need to control, future researchers could follow this framework to articulate the role of the need to belong in both the formation and breach of

psychological contracts. In the need-motive process, regarding the formation of psychological contract, it is very likely that employees with high needs to belong seek relationships characterized by care and concern so as to develop relational instead of transactional psychological contracts; as for psychological contract breach, it is possible that employees with high needs to belong pay more attention to social cues and constantly monitor the development of their relationships with their supervisor (Gardner, Pickett, & Brewer, 2000), making it easier for them to experience psychological contract breach. On the other hand, in the need-requirement process, does the formation of a relational psychological contract satisfy the need to belong? What are the implications on satisfaction the need to belong when a transactional, balanced, or ideological psychological contract is formed? After the perception of a breach, is the need to belong of the employee thwarted? How does thwarted belongingness in turn engender negative influences on work attitudes and behaviours towards organizations?

Answering these questions (the four straight arrows in Figure 7.1) may further advance in the literature, particularly in the interplay between formation and breach of psychological contracts. As suggested, research of psychological contracts should be viewed as a dynamic process instead of discrete stages (Schalk & Roe, 2007). To date, research on the formation and breach of psychological contacts has received wide attention, but they seem disconnected. The current state of the literature provides us with little knowledge on how psychological contracts are re-formed after breach, and it has been argued that breach could induce revision of psychological contracts (Lester, Kickul, & Bergmann, 2007). The proposed integrated process model hints that psychological contract breach could

interact with the formation of psychological contracts through the psychological needs process. For example, does the thwarted-need (need-requirement process) experience from breach trigger employee motivation (need-motive process) to revise the content of psychological contracts? Or, when certain types of psychological contracts are formed, do they adjust the reference points of need-satisfaction (need-requirement process), which then tunes up or down motivation to monitor (need-motive process) for psychological contract breach? Future research can follow this conceptual model to examine the interplay between psychological contract formation and psychological contract breach by linking the need-requirement process and the need-motive process.

7.8 Conclusion

Carl Rogers (1951), a humanistic psychologist, stated that "[t]he organism has one basic tendency and striving—to actualize, maintain, and enhance the experiencing organism" (p. 487). He believed that every single person would thrive and grow, as long as their environments supported their needs. In my experience in psychotherapy work, as a clinical psychologist, I regard client-centred therapy as my leading principle, and I value the importance of raising clients' awareness of their unique psychological needs. In the world of psychotherapy, a therapeutic relationship builds on the psychological needs of the client.

I bring my faith in psychological needs into this thesis. In the world of organizational behaviour, I argue the EOR should be built upon the psychological needs of the employee. By introducing a thwarted-need perspective and implicit theories to this field, I present a

multi-study investigation of the roles of need to control and implicit theories of EOR to understanding behavioural reactions to psychological contract breach. Based on extant discussions of social exchange and affective-event theory, this thesis demonstrates an additional psychological pathway of psychological contract breach—the thwarted need to control—to expand on why breach matters and to offer a new perspective on the EOR.

As the starting point to exploring the role of need to control in breach perceptions, I hope that this thesis will facilitate more dialogue between the realms of psychological needs and psychological contracts. This thesis demonstrates that the perspective of thwarted need to control is not only valid but also unique in understanding the behavioural aftermath of psychological contract breach. In addition, this thesis paves the way for future research on the interplay between breach and thwarted need to control, on the restoration of psychological needs after breach, and on the role of psychological needs in both psychological contract formation and psychological contract breach. I hope that greater theoretical examination and practical application will emphasize the value of psychological needs in the EOR framework. Finally, I hope every organization becomes an environment in which every employee can thrive.

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Appendix 1. Survey of Desire for Control in First Phase in Study 1-1

非常感謝您參與本研究！本研究為不記名調查，大概需要您十分鐘的時間，過程只需提供簡單基本資訊，並依題目填答適合的數字，所有內容僅純粹為學術研究使用，非常謝謝您願意協助！

請在每個框框中填入您的回答，謝謝！

填寫日期 (年/月/日)	2015 年　　　　月	日
性別	男性=1 女性=2	
年齡	請填入數字	
最高教育程度	高中（以下）= 1；學士= 2 碩士= 3；博士= 4	
工作年資 (學生免填)	請填入數字	
在目前這家公司的年資 (學生免填)	請填入數字	
工作部門 (學生免填)	請輸入文字	
是否為主管 (學生免填)	是 = 1；否 = 2	

下列句子描述了一些不同的個性與想法，請根據您的自身感受，以直覺在欄位中填入最合適的數字

⋯⋯1⋯⋯	⋯⋯2⋯⋯	⋯⋯3⋯⋯	⋯⋯4⋯⋯	⋯⋯5⋯⋯	⋯⋯6⋯⋯	⋯⋯7⋯⋯
非常不同意	不同意	稍微不同意	不確定	稍微同意	同意	非常同意

1	我比較喜歡能夠自己控制工作內容與時間的工作
2	我享受政治參與，因為我想要在政府運作上盡可能發揮影響力
3	我不喜歡讓別人來告訴我要做什麼
4	我喜歡領導別人勝過被人領導
5	我喜歡指導別人
6	長途旅行出發前，我仔細地檢查車子的所有狀況
7	其他人通常知道什麼對我最好
8	我享受為自己做決定
9	我喜歡掌握自己的命運
10	進行團體活動時我希望其他人擔任領導角色
11	如果別人不太接納我，我不會覺得困擾
12	我盡力避免做會讓別人排斥或拒絕我的事情
13	我很少擔心別人是否在意我
14	我需要感覺到當我有需求時有人可以求助
15	我想要別人接納我
16	我不喜歡獨處
17	我不會因為和朋友分開很長一段時間而覺得困擾
18	我相當需要有歸屬感
19	當我沒有被別人的計畫考慮進去，我會覺得非常困擾
20	當我覺得別人不接納我，我很容易覺得受傷

Appendix 2. Scenario-Based Experiment in Breach Group in Study 1-1

非常感謝您參與本研究！本研究分成兩個部分，大概需要您五至十分鐘的時間。第一部分需要您閱讀短文，第二部分則是在短文閱讀後，依據題目回答您的想法與感受。

在您閱讀第一部份的短文時，請逐字仔細閱讀，且試著揣摩您就是短文中的主角，盡量想像短文中的事件發生在自己身上，並用自己經歷了短文中的事件之感受，針對第二部分的題目，依直覺選擇最能代表您的想法與感受的數字。

短文開始

　　我是個有數年工作經驗的工程師，最近剛找了一份新的工作。在應徵面試時，我的上司問我對這份工作有什麼期待，我談到了雖然我願意先從助理工程師做起，我其實非常希望下一年可以升職成軟體設計師，因為我其的對於實際設計軟體很有熱情，也覺得那個職位的薪水比較理想。上司聽了後告訴我：「我很開心聽到你對設計軟體有熱情，而且公司確實需要很多的軟體設計師。從你過去工作經驗來看，我保證你明年一定可以成為我們的軟體設計師。通常第一年需從助理工程師做起，只是為了讓你熟悉公司環境，你明年一定可以順利升遷與加薪的！」聽到上司的話，我很期待地開始了這份工作。

　　在這一年中，我充分利用了我的經驗投入這裡的工作，也盡最大力量來完成被交代的任務，上司也認為我確實達到了公司當初對於我的各種期待。然後，上司在公司宣佈了下一年的新人事規畫。我的名字沒有在軟體工程師部門出現，我依然是個助理工程師，不管職位或是職務內容都沒有任何改變。上司和我確認我看到的訊息沒有任何錯誤，下一年我需要做和去年一樣的工作，薪資也會維持和去年一樣，不會加薪。

短文結束

現在請依直覺，從「0~4」根據題目於框框中填入最能代表您的想法與感受的數字

---0---	---1---	---2---	---3---	---4---
不符合	稍微符合	部分符合	大致符合	**符合**

經過這些過程，針對以下敘述的符合程度，此時我認為⋯⋯

1 公司已經違背招募我進公司時所給予我的所有承諾	
2 公司在雇用我時對我所做的承諾已經落空	
3 到目前為止，公司已經違背對我的承諾	
4 我的公司對於我的貢獻一直沒有做出承諾的相應回報	
5 即使我已經盡了我的義務職責，公司對我的大部份承諾已經破滅	

經歷這些過程，在公司裡，我覺得⋯⋯

---1---	---2---	---3---	---4---	---5---	---6---	---7---
非常不符合	不符合	稍微不符合	不確定	稍微符合	符合	非常符合

6 我覺得有影響力	
7 我覺得我能掌握工作的進展	
8 我覺得我有能力具體改變事情	
9 我覺得我無力於影響公司裡的人	
10 我覺得公司裡其他人決定了一切的事	

問卷已結束，您對每個問題的回答都非常寶貴，煩您稍作確認是否已回答每一個問題。
非常感謝您的協助！祝福有個愉快的一天~~

Appendix 3. Scenario-Based Experiment in Control Group in Study 1-1

非常感謝您參與本研究！本研究分成兩個部分，大概需要您五至十分鐘的時間。第一部分需要您閱讀短文，第二部分則是在短文閱讀後，依據題目回答您的想法與感受。

在您閱讀第一部份的短文時，請逐字仔細閱讀，且試著揣摩您就是短文中的主角，盡量想像短文中的事件發生在自己身上，並用自己經歷了短文中的事件之感受，針對第二部分的題目，依直覺選擇最能代表您的想法與感受的數字。

短文開始

　　我是個有數年工作經驗的工程師，最近剛找了一份新的工作。在應徵面試時，我的上司問我對這份工作有什麼期待，我談到了雖然我願意先從助理工程師做起，我其實非常希望下一年可以升職成軟體設計師，因為我真的對於實際設計軟體很有熱情，也覺得那個職位的薪水比較理想。上司聽了後告訴我：「我很開心聽到你對設計軟體有熱情，而且公司確實需要很多的軟體設計師。從你過去工作經驗來看，我保證你明年一定可以成為我們的軟體設計師。通常第一年需從助理工程師做起，只是為了讓你熟悉公司環境，你明年一定可以順利升遷與加薪的！」聽到上司的話，我很期待地開始了這份工作。

　　開始工作到現在已經過了幾個月的時間，這段時間內我逐漸地調整自己的工作方式，希望能早日習慣這裡的環境與流程。這幾個月在工作過程偶而會遇到一點困難，整體應付起來還算可以適應。不曉得等到明年是不是真的可以得到期待中的升遷與加薪，畢竟這種事情在知道結果前本來就都不確定，有什麼變數都很難預測，現在總是得先繼續嘗試看看，剩下的以後再慢慢想。

短文結束

現在請依直覺，從「0~4」根據題目於框框中填入最能代表您的想法與感受的數字

---0---	---1---	---2---	---3---	---4---
不符合	稍微符合	部分符合	大致符合	符合

經過這些過程，針對以下敘述的符合程度，此時我認為……

1 公司已經違背招募我進公司時所給予我的所有承諾	
2 公司在雇用我時對我所做的承諾已經落空	
3 到目前為止，公司已經違背對我的承諾	
4 我的公司對於我的貢獻一直沒有做出承諾的相應回報	
5 即使我已經盡了我的義務職責，公司對我的大部份承諾已經破滅	

經歷這些過程，在公司裡，我覺得……

---1---	---2---	---3---	---4---	---5---	---6---	---7---
非常不符合	不符合	稍微不符合	不確定	稍微符合	符合	非常符合

6 我覺得有影響力	
7 我覺得我能掌握工作的進展	
8 我覺得我有能力具體改變事情	
9 我覺得我無力於影響公司裡的人	
10 我覺得公司裡其他人決定了一切的事	

問卷已結束，您對每個問題的回答都非常寶貴，煩您稍作確認是否已回答每一個問題。
非常感謝您的協助！祝福有個愉快的一天~~

Appendix 4. Instruction of Scenario-Based Experiment on MTurk Platform in Study 1-2

First, please enter your Mturk ID:

Thank you very much for being willing to participate in this study. There are two parts to this study and they should only take you about 10 minutes. You will need to read a short story in the first part, and then answer according to your own feelings to the questions in the second part.

Please read the story in the first part word by word carefully, and try to imagine you are the person in the story. **Please picture that you have gone through the experience in the story, and then indicate your response to questions in part 2 based on your own thoughts and feeling.**

>>

Appendix 5. Scenario of Breach Group in Study 1-2

Story begins

I am an engineer with several years of experience, and I just changed to a new job recently. When my new supervisor asked me about my expectation toward this new job during the recruitment interview, I mentioned that although I am willing to start as an assistant engineer, I am really eager to be promoted as the software designer next year. I am enthusiastic about designing, and I also want the higher salary as a software designer. My supervisor told me that "I am very happy to know you are enthusiastic, and we do need many software engineers as well. Based on your past experience, I can assure you that you will become one of our software designers next year. The first year as an assistant engineer is only a process for you to get familiar with our company. You will become software engineer and get the salary promotion next year for sure". With the supervisor's promise, I started this job eagerly.

One year has passed. I have utilized my experience to contribute to my work and tried my best to achieve whatever I am told, and my supervisor had also thought I had achieved all the expectations of the company. Later, my supervisor announced the result of the personnel arrangement next year. My name was not shown in the list of software designers. I will still be an assistant engineer, and there is not any change in my job or position. My supervisor confirmed that the information in the announcement was correct. I have to do the same job with same position next year, and the salary will also keep the same as my first-year salary.

Story ends

Appendix 6. Scenario of Control Group in Study 1-2

Story begins

I am an engineer with several years of experience, and I just changed to a new job recently. When my new supervisor asked me about my expectation toward this new job during the recruitment interview, I mentioned that although I am willing to start as an assistant engineer, I am really eager to be promoted as the software designer next year. I am enthusiastic about designing, and I also want the higher salary as a software designer. My supervisor told me that "I am very happy to know you are enthusiastic, and we do need many software engineers as well. Based on your past experience, I can assure you that you will become one of our software designers next year. The first year as an assistant engineer is only a process for you to get familiar with our company. You will become software engineer and get the salary promotion next year for sure". With the supervisor's promise, I started this job eagerly.

It has been several months since I started this job. I tried to adjust myself into the work process and environment here step by step. Occasionally I encounter a little difficulty, but overall I think I am on track. I do not know whether I can definitely be promoted and get more salary next year as expected. After all, there is actually no way I can know or even predict the result before it is announced. The only thing I can do now is try to do the job well and wait for what I want in the future.

Story ends

Appendix 7. Manipulation check questions follow the scenario

Imagine that you are the person in the story. In the following statements, **please type in the number (from 0 to 4)** that best describes your own thoughts and feelings based on your intuition.

......0...... ......1...... ......2...... ......3...... ......4......
disagree slightly agree somewhat agree mostly agree **agree**

Almost all the promises made by my employer during recruitment have been violated so far
(number only)

Rectangle input field

I feel that my employer has come through in breaking the promises made to me when I was hired
(number only)

Rectangle input field

So far my employer has already violated its promises to me
(number only)

Rectangle input field

I have not received everything promised to me in exchange for my contributions
(number only)

Rectangle input field

My employer has broken many of its promises to me even though I've upheld my side of the deal
(number only)

Rectangle input field

Appendix 8. Questions Follow the Scenario-Based Experiment in Study 1-2

Having gone through the experience, to my colleagues and my organization, from now on I am willing to……

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
Go out of my way to help co-workers with work-related problems	○	○	○	○	○	○	○
Voluntarily help new employees settle into the job	○	○	○	○	○	○	○
Frequently adjust my work schedule to accommodate other employees' requests for time-off	○	○	○	○	○	○	○
Always go out of the way to make newer employees feel welcome in the work group	○	○	○	○	○	○	○
Show genuine concern and courtesy toward co-workers, even under the most trying business or personal situations	○	○	○	○	○	○	○
Defend the organization when other employees criticize it	○	○	○	○	○	○	○
Encourage friends and family to utilize organization products	○	○	○	○	○	○	○
Defend the organization when outsiders criticize it	○	○	○	○	○	○	○
Show pride when representing the organization in public	○	○	○	○	○	○	○
Actively promote the organization's products and services to potential users	○	○	○	○	○	○	○

Having gone through the experience, in this organization, I felt……

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
I felt powerful	○	○	○	○	○	○	○
I felt I had control over the course of the work	○	○	○	○	○	○	○
I felt I had the ability to significantly alter events	○	○	○	○	○	○	○
I felt I was unable to influence the action of others in the organization	○	○	○	○	○	○	○
I felt the others in the organization decided everything	○	○	○	○	○	○	○

Many thanks for your response. The questionnaire is over and please make sure you have filled in every single question. Thank you again for your help and wish you a wonderful day!

--Questionnaire Ends--

Appendix 9. Qualification Procedure for the Recruitment in Measure Validation in

Study 2

You can only do one hit, thank you.

1. What is your current employment status?

○ Full Time
○ Part Time
○ Unemployed
○ Student
○ Homemaker
○ Retired

2. What is your age?

[   ]

Thank you

Please verify you answered both questions before you press submit!

[Submit]

Appendix 10. MTurk Survey – Validation of the Measure of Implicit Theories of the

EOR

To begin, please first input your worker ID for Mturk here:

Thank you very much for being willing to participate this survey. There will be 3 parts in this survey. The first part is your views about yourself; the second part relates to questions about your work, and the third part is your life in general. There are no right or wrong answers for all the questions. Please feel free to respond as you truly feel.

The survey takes approximately 10 minutes to complete. Your honesty in your responses is greatly valued. The whole survey is anonymous without any identifiable information, so your responses will be kept confidential.

Thank you once again for your valuable time!

Section 1: About yourself

Please indicate the extent to which you agree or disagree with the following statements based on your own feelings

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
No matter what the odds, if I believe in something I will make it happen	○	○	○	○	○	○	○
I love being a champion for my ideas, even against others' opposition	○	○	○	○	○	○	○
I excel at identifying opportunities	○	○	○	○	○	○	○
If I believe in an idea, no obstacle will prevent me from making it happen	○	○	○	○	○	○	○
I generally consider changes to be a negative thing	○	○	○	○	○	○	○
I'll take a routine day over a day full of unexpected events any time	○	○	○	○	○	○	○
I like to do the same old things rather than try new and different ones	○	○	○	○	○	○	○
Whenever my life forms a stable routine, I look for ways to change it	○	○	○	○	○	○	○
I'd rather be bored than surprised	○	○	○	○	○	○	○
I often change my mind	○	○	○	○	○	○	○
Once I've come to a conclusion, I'm not likely to change my mind	○	○	○	○	○	○	○
I don't change my mind easily	○	○	○	○	○	○	○
My views are very consistent over time	○	○	○	○	○	○	○
Unforeseen events upset me greatly	○	○	○	○	○	○	○
It frustrates me not having all the information I need.	○	○	○	○	○	○	○
One should always look ahead so as to avoid surprises.	○	○	○	○	○	○	○
A small, unforeseen event can spoil everything, even with the best of planning	○	○	○	○	○	○	○
I always want to know what the future has in store for me	○	○	○	○	○	○	○
I can't stand being taken by surprise	○	○	○	○	○	○	○
I should be able to organize everything in advance.	○	○	○	○	○	○	○
Uncertainty keeps me from living a full life.	○	○	○	○	○	○	○
When it's time to act, uncertainty paralyses me.	○	○	○	○	○	○	○
When I am uncertain I can't function very well.	○	○	○	○	○	○	○
The smallest doubt can stop me from acting.	○	○	○	○	○	○	○
I must get away from all uncertain situations.	○	○	○	○	○	○	○

>>

Section 2: About your view on work and work experience

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The relationship between the employee and the organization is something fixed and it can't be changed much.	○	○	○	○	○	○	○
The relationship between the employee and the organization has its ingrained dispositions. It cannot be changed very much.	○	○	○	○	○	○	○
There is not much that can be done to change the relationship between the employee and the organization.	○	○	○	○	○	○	○
A job is what you make of it.	○	○	○	○	○	○	○
On most jobs, people can pretty much accomplish whatever they set out to accomplish	○	○	○	○	○	○	○
If you know what you want out of a job, you can find a job that gives it to you.	○	○	○	○	○	○	○
If employees are unhappy with a decision made by their boss, they should do something about it.	○	○	○	○	○	○	○
Getting the job you want is mostly a matter of luck.	○	○	○	○	○	○	○
Making money is primarily a matter of good fortune.	○	○	○	○	○	○	○
Most people are capable of doing their jobs well if they make the effort.	○	○	○	○	○	○	○
In order to get a really good job you need to have family members or friends in high places.	○	○	○	○	○	○	○
Promotions are usually a matter of good fortune.	○	○	○	○	○	○	○
When it comes to landing a really good job, who you know is more important than what you know.	○	○	○	○	○	○	○
Promotions are given to employees who perform well on the job.	○	○	○	○	○	○	○
To make a lot of money you have to know the right people.	○	○	○	○	○	○	○
It takes a lot of luck to be an outstanding employee on most jobs.	○	○	○	○	○	○	○
People who perform their jobs well generally get rewarded for it.	○	○	○	○	○	○	○
Most employees have more influence on their supervisors than they think they do	○	○	○	○	○	○	○
The main difference between people who make a lot of money and people who make a little money is luck.	○	○	○	○	○	○	○
I took my current job as a steppingstone to a better job with another organization	○	○	○	○	○	○	○
I expect to work for a variety of different organizations in my career	○	○	○	○	○	○	○
I do not expect to change organizations often during my career	○	○	○	○	○	○	○
there are many career opportunities I expect to explore after I leave my present employers	○	○	○	○	○	○	○
I am really looking for an organization to spend my entire career with	○	○	○	○	○	○	○
I have seriously thought about leaving the organization that I currently work in	○	○	○	○	○	○	○
I would prefer another job to the one I have now.	○	○	○	○	○	○	○
If I have my way, I won't be working for my current organization a year from now.	○	○	○	○	○	○	○
At work, I am concerned about the needs and interests of others such as my colleagues	○	○	○	○	○	○	○
At work, the goals and aspirations of colleagues are important to me	○	○	○	○	○	○	○
At work, I consider others' wishes and desires to be relevant	○	○	○	○	○	○	○
At work, I am concerned about my own needs and interests	○	○	○	○	○	○	○
At wrok, my personal goals and aspirations are important to me	○	○	○	○	○	○	○
At work, I consider my own wishes and desires to be relevant	○	○	○	○	○	○	○
Please select "strongly disagree" for this question and then continue	○	○	○	○	○	○	○

For the organization I currently work for, I would say ...

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I usually say "we" rather than "they" when I talk about this organization	○	○	○	○	○	○	○
This organization's successes are my successes	○	○	○	○	○	○	○
I am very interested in what others think about this organization	○	○	○	○	○	○	○
It feels like a personal compliment if someone praises this organization	○	○	○	○	○	○	○
I feel embarrassed if a story in the media criticizes this organization	○	○	○	○	○	○	○
I feel insulted if other people criticize this company	○	○	○	○	○	○	○
The organization values my contribution to its well-being.	○	○	○	○	○	○	○
The organization fails to appreciate any extra effort from me.	○	○	○	○	○	○	○
The organization would ignore any complaint from me.	○	○	○	○	○	○	○
The organization really cares about my well-being.	○	○	○	○	○	○	○
Even if I did the best job possible, the organization would fail to notice.	○	○	○	○	○	○	○
The organization cares about my general satisfaction at work.	○	○	○	○	○	○	○
The organization shows very little concern for me	○	○	○	○	○	○	○
The organization takes pride in my accomplishments at work.	○	○	○	○	○	○	○
I count around my organization	○	○	○	○	○	○	○
I am trusted around my organization	○	○	○	○	○	○	○
I am helpful around my organization	○	○	○	○	○	○	○
I am taken seriously around my organization	○	○	○	○	○	○	○
There is faith in me around my organization	○	○	○	○	○	○	○
I can make a difference around my organization	○	○	○	○	○	○	○
I am a valuable part of this organization	○	○	○	○	○	○	○
I am cooperative around my organization	○	○	○	○	○	○	○
I am efficient around my organization	○	○	○	○	○	○	○
I am an important part of this organization	○	○	○	○	○	○	○

>>

In the past 3 months in your organization, how often did you ask for individual arrangements different from your colleagues in terms of …

	Never	Rarely	Occasionally	Sometimes	Most of the time	Very often	Always
training opportunities	○	○	○	○	○	○	○
Skill development opportunities	○	○	○	○	○	○	○
On-the-job activities	○	○	○	○	○	○	○
Career development opportunities	○	○	○	○	○	○	○
Flexibility in starting and ending the workday	○	○	○	○	○	○	○
Individually customized work schedule	○	○	○	○	○	○	○
personal challenging work tasks	○	○	○	○	○	○	○
special job duties or assignments	○	○	○	○	○	○	○
tasks that suit my personal interest	○	○	○	○	○	○	○
compensation (e.g. pay, bonuses)	○	○	○	○	○	○	○
benefits (e.g. health benefits)	○	○	○	○	○	○	○

Section 3: About your view of general life

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
You have a certain amount of intelligence and you really can't do much to change it.	○	○	○	○	○	○	○
You can learn new things, but you can't really change your basic intelligence.	○	○	○	○	○	○	○
Your intelligence is something about you that you can't change much.	○	○	○	○	○	○	○
Though some phenomena can be changed, it is unlikely that the core dispositions of the world can be altered.	○	○	○	○	○	○	○
Our world has its basic and ingrained dispositions, and you really can't do much to change it.	○	○	○	○	○	○	○
Some societal trends may dominate for a while, but the fundamental nature of our world is something that cannot be changed much.	○	○	○	○	○	○	○
A person's moral character is something very basic about them and it can't be changed much.	○	○	○	○	○	○	○
Whether a person is responsible and sincere or not is deeply ingrained in their personality. It cannot be changed very much.	○	○	○	○	○	○	○
There is not much that can be done to change a person's moral traits (e.g., conscientiousness, uprightness, and honesty).	○	○	○	○	○	○	○
I can make impromptu speeches even on topics about which I have almost no information.	○	○	○	○	○	○	○
I guess I put on a show to impress or entertain others.	○	○	○	○	○	○	○
I would probably make a good actor.	○	○	○	○	○	○	○
In different situations and with different people, I often act like very different persons	○	○	○	○	○	○	○
I'm not always the person I appear to be	○	○	○	○	○	○	○
I have considered being an entertainer	○	○	○	○	○	○	○
lean look anyone in the eye and tell a lie with a straight face (if for a right end)	○	○	○	○	○	○	○
I may deceive people by being friendly when I really dislike them	○	○	○	○	○	○	○
On the whole, I am satisfied with myself.	○	○	○	○	○	○	○
At times I think I am no good at all.	○	○	○	○	○	○	○

Clos

I feel that I have a number of good qualities.	○	○	○	○	○	○	○
I am able to do things as well as most other people.	○	○	○	○	○	○	○
I feel I do not have much to be proud of.	○	○	○	○	○	○	○
I certainly feel useless at times.	○	○	○	○	○	○	○
I feel that I'm a person of worth, at least on an equal plane with others.	○	○	○	○	○	○	○
I wish I could have more respect for myself.	○	○	○	○	○	○	○
All in all, I am inclined to feel that I am a failure.	○	○	○	○	○	○	○
I take a positive attitude toward myself.	○	○	○	○	○	○	○
It is sometimes hard for me to go on with my work if I am not encouraged.	○	○	○	○	○	○	○
I sometimes feel resentful when I don't get my own way.	○	○	○	○	○	○	○
On a few occasions, I have given up doing something because I thought too little of my ability.	○	○	○	○	○	○	○
There have been times when I felt like rebelling against people in authority even though I knew they were right.	○	○	○	○	○	○	○
No matter who I'm talking to, I'm always a good listener.	○	○	○	○	○	○	○
There have been occasions when I took advantage of someone.	○	○	○	○	○	○	○
I'm always willing to admit it when I make a mistake.	○	○	○	○	○	○	○
I sometimes try to get even, rather than forgive and forget.	○	○	○	○	○	○	○
I am always courteous, even to people who are disagreeable.	○	○	○	○	○	○	○
I have never been irked when people expressed ideas very different from my own.	○	○	○	○	○	○	○
There have been times when I was quite jealous of the good fortune of others.	○	○	○	○	○	○	○
I am sometimes irritated by people who ask favours of me.	○	○	○	○	○	○	○
I have never deliberately said something that hurt someone's feelings.	○	○	○	○	○	○	○
Please select "agree" for this question and then continue	○	○	○	○	○	○	○

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About your view on romantic relationships…

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Potential relationship partners are either compatible or they are not	○	○	○	○	○	○	○
A successful relationship is mostly a matter of finding a compatible partner	○	○	○	○	○	○	○
Potential relationship partners are either destined to get along or they are not	○	○	○	○	○	○	○
Relationships that do not start off well inevitably fail	○	○	○	○	○	○	○
The ideal relationship develops gradually over time	○	○	○	○	○	○	○
Challenges and obstacles in a relationship can make love even stronger	○	○	○	○	○	○	○
A successful relationship is mostly a matter of learning to resolve conflicts with a partner	○	○	○	○	○	○	○
A successful relationship evolves through hard work and resolution of incompatibilities	○	○	○	○	○	○	○

Please make sure to click the next button below at the right to record your answers

>>

Appendix 11. Employee Survey in Study 2

填寫日期	年　　月　　日	您的年齡	歲	性別	□ 男 □ 女
學歷教育	您的最高學歷：□高中及以下　□大專院校畢業（學士）　□碩士 □博士				
工作經歷	您開始工作至今已經_____年；您在目前這家公司工作了_____年 與現在的主管的互動程度：□極少 □偶爾 □普通 □經常 □總是 現在是否擔任主管的職務：□是　□否				

下列是與**工作相關經驗**有關的句子，請根據您的感受，以直覺在欄位中圈選最合適的數字

……1……　　……2……　……3……　　……4……　　……5……　　……6……　　……7……

非常不同意　　不同意　稍微不同意　　不確定　　稍微同意　　同意　　非常同意

我的工作給我獨立思考與判斷的空間來完成任務。	1	2	3	4	5	6	7
我的工作允許我自己做許多的決定。	1	2	3	4	5	6	7
我在工作的決策上具有很大的自主性。	1	2	3	4	5	6	7
我覺得自己有責任在工作的時候嘗試做一些改變。	1	2	3	4	5	6	7
我願意做任何事情來改善我的工作環境。	1	2	3	4	5	6	7
當需要的時候，我有責任引進新的工作方式。	1	2	3	4	5	6	7
修正工作上問題不是我的責任。	1	2	3	4	5	6	7
挑戰與改變工作的現況並不是我的責任。	1	2	3	4	5	6	7
我對公司的發展有一定的影響	1	2	3	4	5	6	7
公司對我信任	1	2	3	4	5	6	7
在公司中，我是有用的人	1	2	3	4	5	6	7
我在公司中有一定的份量	1	2	3	4	5	6	7
公司信賴我	1	2	3	4	5	6	7
在公司中，我是能起一定作用的人	1	2	3	4	5	6	7
在公司中，我是有價值的人	1	2	3	4	5	6	7
我與同事可以合作	1	2	3	4	5	6	7
在公司中，我是有效率的人	1	2	3	4	5	6	7
公司重視我	1	2	3	4	5	6	7
我相信我的公司很正派	1	2	3	4	5	6	7
我的公司對待我的方式前後一致，不會有什麼不可預期的改變	1	2	3	4	5	6	7
我的公司並非一直誠信真實	1	2	3	4	5	6	7
大體而言，我相信我的公司的動機和意圖是好的	1	2	3	4	5	6	7

我的公司對待我還算公平	1	2	3	4	5	6	7
我的公司對待我開放而且誠懇	1	2	3	4	5	6	7
我不確定我能真正信任我的公司	1	2	3	4	5	6	7
公司有兌現招募我進公司時所給予我的所有承諾	1	2	3	4	5	6	7
公司有實現在雇用我時對我所做的承諾	1	2	3	4	5	6	7
到目前為止，公司努力兌現對我的承諾	1	2	3	4	5	6	7
我的公司對於我的貢獻一直沒有做出承諾的相應回報。	1	2	3	4	5	6	7
即使我已經盡了我的義務職責，公司對我的大部份承諾還是沒有兌現。	1	2	3	4	5	6	7

下面是與**<u>您在這家公司中之社會互動經驗</u>**有關的句子，請根據自身感受，以直覺在欄位中填入合適數字

······1······　　······2······　······3······　　······4······　　······5······　　······6······　　······7······

非常不同意　　不同意　稍微不同意　　不確定　　稍微同意　　同意　　非常同意

我覺得有影響力	1	2	3	4	5	6	7
我覺得我能掌握工作的進展	1	2	3	4	5	6	7
我覺得我有能力具體改變事情	1	2	3	4	5	6	7
我覺得我無力於影響公司裡的人	1	2	3	4	5	6	7
我覺得公司裡其他人決定了一切的事	1	2	3	4	5	6	7
公司中，他人常忽視我	1	2	3	4	5	6	7
公司中，他人常躲避我	1	2	3	4	5	6	7
公司中，他人不太理會我的招呼	1	2	3	4	5	6	7
公司中，他人常冷落我	1	2	3	4	5	6	7
公司中，他人常避免與我接觸	1	2	3	4	5	6	7
公司中，他人常不願搭理我	1	2	3	4	5	6	7
公司中，他人常打斷我的話	1	2	3	4	5	6	7
公司中，他人常不願與我談話	1	2	3	4	5	6	7
公司中，他人常對我視而不見	1	2	3	4	5	6	7
公司中，他人常忽視我的需求和感受	1	2	3	4	5	6	7

下列是與**<u>您的想法與價值觀</u>**有關的句子，請根據您的感受，以直覺在欄位中圈選最合適的數字

······1······　　······2······　······3······　　······4······　　······5······　　······6······　　······7······

非常不同意　　不同意　稍微不同意　　不確定　　稍微同意　　同意　　非常同意

員工和公司的關係形式是固定的，很難有所更動	1	2	3	4	5	6	7

員工和公司的關係有著根深蒂固的成分，而且很難被改變	1	2	3	4	5	6	7
即使努力嘗試，員工和公司的關係也不會被改變	1	2	3	4	5	6	7
在工作上，我考慮我的需求與興趣	1	2	3	4	5	6	7
在工作上，我的個人目標與期望對我來說是重要的。	1	2	3	4	5	6	7
在工作上，我比較關注我個人的願望。	1	2	3	4	5	6	7
在工作上，我考慮他人的需求與興趣	1	2	3	4	5	6	7
在工作上，他人的目標與期望對我來說是重要的。	1	2	3	4	5	6	7
在工作上，我比較關注他人的願望。	1	2	3	4	5	6	7

問卷已結束，您對每個問題的回答都非常寶貴，煩您稍作確認是否已回答每一個問題。
非常感謝您的協助！祝福有個愉快的一天~~

Appendix 12. Supervisor Survey in Study 2

台灣組織行為與人力資源管理研究（主管）調查問卷

您好!

感謝您願意參與本研究！本研究是英國倫敦政經學院管理學系組織行為組所進行之「台灣組織行為與人力資源調查研究」，過程需麻煩您提供簡單基本資訊，並依照題目，根據您的判斷，以直覺在欄位中圈選最合適的數字。主管問卷中分為兩大部分：**「員工評估」**以及**「主管工作經驗」**。在第一部分中，您需要以主管身分針對某位員工進行評估，並回答您對該員工表現的觀察；而在第二部分，則需要將詢問您針對自身工作經驗做回答。非常謝謝您願意協助我們進行研究！

首先請您開始**第一部分：「員工評估」**

填寫日期	年　　月　　日	您的年齡	歲	性別	□ 男 □ 女
工作經歷	您在目前這家公司工作了_____年；您與這位員工工作了_____年 與這位員工的互動程度：□極少 □偶爾 □普通 □經常 □總是 您對這位員工的工作內容：□完全不熟悉 □不熟悉 □普通 □熟悉 □非常熟悉				

請依據您對該員工表現的觀察，判斷其符合題項描述的程度圈選出適當數字

……1……　……2……　……3……　……4……　……5……　……6……　……7……

非常不符合　不符合　稍微不符合　不確定　稍微符合　符合　非常符合

我認為這名員工……							
整體的工作表現良好	1	2	3	4	5	6	7
工作表現的品質良好	1	2	3	4	5	6	7
能完成工作目標	1	2	3	4	5	6	7
能提出有創意的想法	1	2	3	4	5	6	7
能搜尋新的技術、科技與產品的想法	1	2	3	4	5	6	7
能向別人推銷並擁護自己的想法	1	2	3	4	5	6	7
能與他人溝通對工作問題的意見，即使他的意見有別於他人並遭受反對	1	2	3	4	5	6	7
對工作相關議題能提出新想法或改變	1	2	3	4	5	6	7
對影響工作流程的新想法勇於發言，並鼓勵其他人參與改變	1	2	3	4	5	6	7

嘗試改善在工作環境中的工作流程	1	2	3	4	5	6	7
嘗試建立新的且較有效率的工作方法	1	2	3	4	5	6	7
嘗試實施可以解決公司問題的方案	1	2	3	4	5	6	7
嘗試發展長遠有效的工作方法或工作模式，即使在開始時會令效率下降	1	2	3	4	5	6	7
嘗試找出工作上事情出錯的根本原因	1	2	3	4	5	6	7
花時間計畫如何防止工作問題重複出現	1	2	3	4	5	6	7
雖然麻煩，仍願意幫助同事處理工作相關問題	1	2	3	4	5	6	7
自願地協助新進員工適應工作	1	2	3	4	5	6	7
經常調動自己的工作安排來配合其他員工休假的需求	1	2	3	4	5	6	7
雖然辛苦，還是總願意協助較新員工融入工作團隊	1	2	3	4	5	6	7
即使在非常為難的工作或個人狀況，還是對同事表達真誠關懷與有禮態度	1	2	3	4	5	6	7
當其他員工批評公司，這名員工會幫公司說話	1	2	3	4	5	6	7
鼓勵朋友與家人使用公司的產品	1	2	3	4	5	6	7
當外面的人批評公司，這名員工會幫公司說話	1	2	3	4	5	6	7
在公眾場合身為公司代表的時候，這名員工覺得驕傲	1	2	3	4	5	6	7
主動地宣傳公司產品與服務給潛在客戶	1	2	3	4	5	6	7

問卷已結束，您對每個問題的回答都非常寶貴，煩您稍作確認是否已回答每一個問題。
非常感謝您的協助！祝福有個愉快的一天~~

Appendix 13. Time 1 Survey in Study 3

台灣組織行為與人力資源管理研究（員工）調查問卷
（第一次）

您好!

感謝您願意參與本研究！本研究是**英國倫敦政經學院管理學系組織行為組**所進行之「台灣組織行為與人力資源調查研究」，本研究為**不記名調查**，完成整個研究將需要您進行三次的問卷，每次會麻煩您二十分鐘的時間。過程只需提供簡單基本資訊，並依照題目，根據您自身的感受，以直覺在欄位中圈選最合適的數字。**您的填答將嚴格保密**，純粹為學術研究使用，僅受研究者分析，不會與任何您工作場域或其他人分享，也絕對不會以任何形式提供給您的上司、同事等相關人士，未來在研究論文中也不會提及參與單位的名字，請您放心填答，協助我們進行研究。

非常謝謝您願意協助！

首先請您於下方表格中填答基本資訊：

填寫日期	年　　月　　日	您的年齡	歲	性別	□男 □女
學歷教育	您的最高學歷：□高中及以下　□大專院校畢業（學士） 　　　　□碩士　　　□博士				
工作經歷	您開始工作至今已經_____年_____個月 您在目前這家公司工作了_____年_____個月 與現在的主管的互動程度：□極少 □偶爾 □普通 □經常 □總是 現在是否擔任主管的職務：□是　□否				

==表格填寫完畢後請翻頁開始問卷==

請根據您的感受，以直覺在欄位中圈選最合適的數字

……1……　……2……　……3……　……4……　……5……　……6……　……7……

非常不同意　不同意　稍微不同意　不確定　稍微同意　同意　非常同意

我會自願為團隊處理工作的事物	1	2	3	4	5	6	7
我會幫助團隊內的新進人員適應環境	1	2	3	4	5	6	7
我會採取一些措施來幫助工作團隊	1	2	3	4	5	6	7
我會協助團隊的其他成員，以便有益於團隊運作	1	2	3	4	5	6	7
我會投入有益於工作團隊的事物	1	2	3	4	5	6	7
我會幫助團隊成員學習關於工作的事物	1	2	3	4	5	6	7
公司有兌現招募我進公司時所給予我的所有承諾	1	2	3	4	5	6	7
公司有實現在雇用我時對我所做的承諾	1	2	3	4	5	6	7
到目前為止，公司努力兌現對我的承諾	1	2	3	4	5	6	7
我的公司對於我的貢獻一直沒有做出承諾的相應回報	1	2	3	4	5	6	7
即使我已經盡我的義務職責，公司對我的大部份承諾還是沒有兌現	1	2	3	4	5	6	7
員工和公司的關係形式是固定的，很難有所更動	1	2	3	4	5	6	7
員工和公司的關係有著根深蒂固的成分，而且很難被改變	1	2	3	4	5	6	7
即使努力嘗試，員工和公司的關係也不會被改變	1	2	3	4	5	6	7

問卷已結束，您對每個問題的回答都非常寶貴，煩您稍作確認是否已回答每一個問題。
非常感謝您的協助！祝福有個愉快的一天~~

Appendix 14. Time 2 Survey in Study 3

請**根據您的感受，以直覺在欄位中圈選最合適的數字**

······1······　　······2······　　······3······　　······4······　　······5······　　······6······　　······7······

非常不同意　　不同意　　稍微不同意　　不確定　　稍微同意　　同意　　非常同意

在這家公司中，我覺得抽離	1	2	3	4	5	6	7
在這家公司中，我覺得被拒絕	1	2	3	4	5	6	7
在這家公司中，我像個局外人	1	2	3	4	5	6	7
我覺得我歸屬於這個公司	1	2	3	4	5	6	7
我覺得公司中的人與我互動很多	1	2	3	4	5	6	7
在這家公司中，我覺得我有影響力	1	2	3	4	5	6	7
在這家公司中，我覺得我能掌握工作的發展	1	2	3	4	5	6	7
在這家公司中，我覺得我有能力具體改變事情	1	2	3	4	5	6	7
我覺得我無力於影響公司裡的人	1	2	3	4	5	6	7
我覺得公司裡其他人決定了一切的事	1	2	3	4	5	6	7
我覺得對於我的公司有很大的憤怒	1	2	3	4	5	6	7
我覺得我的公司背叛我	1	2	3	4	5	6	7
我覺得我的公司已經違反了我們之間的約定	1	2	3	4	5	6	7
我覺得對於我的公司如何對待我感到極度受挫	1	2	3	4	5	6	7
我認為盡我所能協助公司實現目標是我的個人責任	1	2	3	4	5	6	7
工作中，我理應百分之百地將個人精力用於實現公司目標	1	2	3	4	5	6	7
我認為確保高品質地完成工作是我對公司的一種責任	1	2	3	4	5	6	7
我理應盡我所能確保顧客得到最好的服務並且感到滿意	1	2	3	4	5	6	7
如果公司需要協助，放棄個人安排來為公司工作也是我的責任所在	1	2	3	4	5	6	7
如果不能達到公司的績效標準，我會感到愧疚	1	2	3	4	5	6	7
我覺得我對公司唯一有的義務是達成工作的最低要求	1	2	3	4	5	6	7

問卷已結束，您對每個問題的回答都非常寶貴，煩您稍作確認是否已回答每一個問題。
非常感謝您的協助！祝福有個愉快的一天~~

Appendix 15. Time 3 Survey in Study 3

請根據您的感受，以直覺在欄位中圈選最合適的數字

······1······　　······2······　　······3······　　······4······　　······5······　　······6······　　······7······

非常不同意　　不同意　　稍微不同意　　不確定　　稍微同意　　同意　　非常同意

在這家公司中，我覺得抽離	1	2	3	4	5	6	7
在這家公司中，我覺得被拒絕	1	2	3	4	5	6	7
在這家公司中，我像個局外人	1	2	3	4	5	6	7
我覺得我歸屬於這個公司	1	2	3	4	5	6	7
我覺得公司中的人與我互動很多	1	2	3	4	5	6	7
在這家公司中，我覺得我有影響力	1	2	3	4	5	6	7
在這家公司中，我覺得我能掌握工作的發展	1	2	3	4	5	6	7
在這家公司中，我覺得我有能力具體改變事情	1	2	3	4	5	6	7
我覺得我無力於影響公司裡的人	1	2	3	4	5	6	7
我會自願為團隊處理工作的事物	1	2	3	4	5	6	7
我會幫助團隊內的新進人員適應環境	1	2	3	4	5	6	7
我會採取一些措施來幫助工作團隊	1	2	3	4	5	6	7
我會協助團隊的其他成員，以便有益於團隊運作	1	2	3	4	5	6	7
我會投入有益於工作團隊的事物	1	2	3	4	5	6	7
我會幫助團隊成員學習關於工作的事物	1	2	3	4	5	6	7
我覺得公司裡其他人決定了一切的事	1	2	3	4	5	6	7
我覺得對於我的公司有很大的憤怒	1	2	3	4	5	6	7
我覺得我的公司背叛我	1	2	3	4	5	6	7
我覺得我的公司已經違反了我們之間的約定	1	2	3	4	5	6	7
我覺得對於我的公司如何對待我感到極度受挫	1	2	3	4	5	6	7
我認為盡我所能協助公司實現目標是我的個人責任	1	2	3	4	5	6	7
工作中，我理應百分之百地將個人精力用於實現公司目標	1	2	3	4	5	6	7
我認為確保高品質地完成工作是我對公司的一種責任	1	2	3	4	5	6	7
我理應盡我所能確保顧客得到最好的服務並且感到滿意	1	2	3	4	5	6	7
如果公司需要協助，放棄個人安排來為公司工作也是我的責任所在	1	2	3	4	5	6	7
如果不能達到公司的績效標準，我會感到愧疚	1	2	3	4	5	6	7
我覺得我對公司唯一有的義務是達成工作的最低要求	1	2	3	4	5	6	7

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