

# Crafting the Change

The Role of Job Crafting and Regulatory Focus  
in Adaptation to Organizational Change

Paraskevas Petrou



# Crafting the Change

The Role of Job Crafting and Regulatory Focus  
in Adaptation to Organizational Change

Paraskevas Petrou  
Utrecht, 2013

**Crafting the Change:**

The Role of Job Crafting and Regulatory Focus  
in Adaptation to Organizational Change

**Het Craften van Verandering:**

De Rol van Job Crafting en Regulatory Focus  
in de Aanpassing aan Organisatieverandering  
(met een samenvatting in het Nederlands)

**Proefschrift**

ter verkrijging van de graad van doctor aan de Universiteit Utrecht op  
gezag van de rector magnificus, prof.dr. G.J. van der Zwaan, ingevolge  
het besluit van het college voor promoties in het openbaar te verdedigen  
op vrijdag 28 juni 2013 des middags te 2.30 uur

door: **Paraskevas Petrou**

geboren op 22 augustus 1983 te Athene, Griekenland

**Promotoren: Prof. dr. E. Demerouti**  
**Prof. dr. W.B. Schaufeli**

# Contents

<b>CHAPTER 1</b>	<b>007</b>
Introduction	
<b>CHAPTER 2</b>	<b>021</b>
Thinking of Change in Terms of “Gains” or “Losses”: Promotion Versus Prevention Focus as a Moderator in the Job Demands-Resources Model	
<b>CHAPTER 3</b>	<b>049</b>
When Fit Matters More: The Effect of Regulatory Fit on Adaptation to Change	
<b>CHAPTER 4</b>	<b>071</b>
Crafting a Job on a Daily Basis: Contextual Correlates and the Link to Work Engagement	
<b>CHAPTER 5</b>	<b>099</b>
Employee Job Crafting in Changing Environments: Longitudinal Relationships With Antecedents and Outcomes	
<b>CHAPTER 6</b>	<b>125</b>
Crafting the Change: The Role of Employee Job Crafting Behaviors for Successful Organizational Change	
<b>CHAPTER 7</b>	<b>155</b>
Discussion	
<b>SUMMARY</b>	<b>175</b>
<b>SAMENVATTING</b>	<b>183</b>
<b>REFERENCES</b>	<b>191</b>
<b>ACKNOWLEDGEMENTS</b>	<b>209</b>



## 1

## Introduction

**Partly based on:**

Petrou, P., Demerouti, E., & Breevaart, K. (in press). Job crafting als sleutel tot succesvolle organisatieverandering. *Gedrag en Organisatie*.

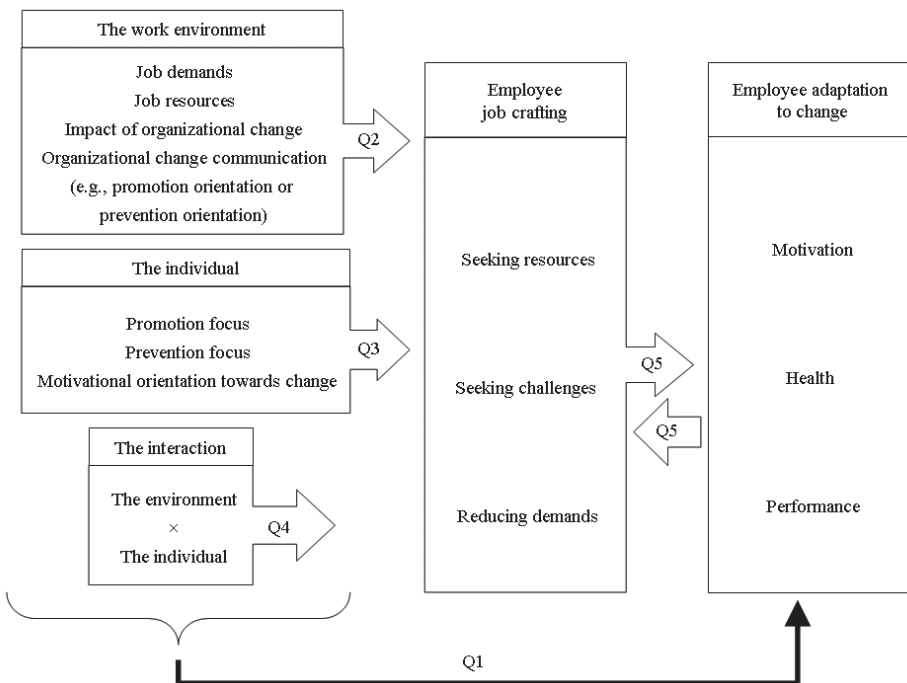


## 1.1 Introduction

Organizational change refers to the efforts that change agents, mainly managers, exert in order to bring employees to new behaviors that benefit the organization (van der Ven, 2011). Internal and external factors trigger organizational changes of every type today. Change is a permanent task of managers within organizations trying to adapt to the environment but also to exert influence on it (Milling, 2011). However, the failure rate of organizational change is reported to be as high as 70 percent (By & Burnes, 2012). On a time that organizations increasingly rely on their employees in order to adapt to changes (Van Dam, Oreg, & Schyns, 2008), it becomes necessary to gain insight into extra-role behaviors or strategies that help employees deal with and adjust to organizational changes. Such strategies have the potential to bring about successful organizational change for the organization as a whole. Furthermore, they can help employees adapt to organizational change and transform change into a positive experience in their daily working live.

Top-down approaches to organizational change (Kotter, 1995) assume that change is implemented by the management and that adequate communication around the changes is the key to successful implementation of change. On basis of regulatory focus theory (Higgins, 1997; 1998), however, it is proposed that change initiatives will be of limited success when the organizational culture or communication around the changes does not fit with the preferences and motivational orientation of employees (Taylor-Bianco & Schermerhorn, 2006). Luckily, employees are not passive recipients but instead they are able to “craft” and reshape their jobs when they perceive a misfit with their job environment (Tims & Bakker, 2010). Therefore, in line with more bottom-up approaches to organizational change (Avey, Wernsing, & Luthans, 2008; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010), we address job crafting (i.e., self-initiated and voluntary behaviors targeted at reshaping one’s job demands, job challenges and job resources) as an employee strategy to deal with organizational change. By reshaping the aspects of their job in a way that is most beneficial for them, job crafters create an optimal work situation. Therefore, they have the potential to sustain and increase their level of functioning in times of change. Our central proposition is that job crafting is predicted by both individual motivational orientations and environmental factors within an organizational change context and it potentially facilitates employees in adapting to changes successfully.

This thesis aims at building on this proposition (namely, that job crafting can play a favorable role in the context of organizational change) by exploring successively three layers that compose it: i) We test if individual motivational orientation and the way it interacts with the changing job environment (i.e., by matching or mismatching with the environment) is associated with employee adaptation to change. ii) We test if employee job crafting behaviors facilitate adaptation to change. iii) We test if individual motivational orientations, contextual factors as well as a possible mismatch between the two, can lead employees to craft their job so as to adapt better to their changing environment. All in all, job crafting emerges in the present thesis as a multidimensional strategy enacted by employees in order to deal with organizational change. Therefore, within the context of change implemented by an organization, we emphasize the active role of the employee in facilitating his or her own adjustment via job crafting. As can be seen in Figure 1.1, job crafting can be triggered by both individual and organizational factors and it has the potential to exert an influence on several aspects of employee adaptation to organizational change (i.e., motivation, health and performance).



**Figure 1.1.** A theoretical framework on employee adaptation to organizational changes;

Note. Q1– Q5 refer to Questions 1 – 5.

## 1.2 Conceptualizing organizational change and adaptation

Employees may craft their jobs in the face of organizational change (Van den Heuvel et al., 2010). In order to study job crafting within the present thesis we focus on organizational changes and innovations that result in new job tasks, organizational practices and methods with an aim to improve the level of functioning at the employee and the organizational level. Such organizational changes could, for example, include a new computer system or a flexible workspace for the employees of a company or a new teaching method for the teachers of a school (e.g., focus on the talents of students rather than reproduction of knowledge). When these types of organizational change are not threatening, they provide employees with the discretion to consider plans of actions that have the potential to facilitate their adaptation. In that case these changes are likely to allow or trigger employee job crafting behaviors. We do not, thus, expect changes which increase job insecurity or anxiety (e.g., downsizings or fusions) to serve as a useful context for the study of job crafting. Downsizings trigger fear, impair intrinsic work motivation, and decrease employee willingness to implement new ideas (Bommer & Jalajas, 1999). Job insecurity also has unfavorable implications for employee health, motivation, and performance (Sverke, Hellgren, & Naswall, 2002). It is unlikely that employees with uncertain future in an organization will display self-initiated and voluntary behaviors, like job crafting. Therefore, in the present thesis we focus on organizational changes that should normally not threaten the security of the individual or a colleague.

Employee adaptation to organizational changes is a multifaceted concept. In order for organizational change to succeed managers should enhance employee readiness to support the implemented changes (Miller, Johnson, & Grau, 1994). However, employees who are ready to embrace the changes may often fail to act on their intentions. That could happen, for instance, when organizational change impairs their well-being (Jimmieson, Terry, & Callan, 2004) or hinders their motivation via the demands or other constraints and disruptions that it dictates (Callan, 1993). Such obstacles may have an adverse effect both on their general level of functioning and their functioning on the new tasks that are introduced. In the present thesis we, thus, examine multiple components of adaptation. This is in line with empirical evidence (Martin, Jones, & Callan, 2005) as well as theoretical models (Van den Heuvel et al., 2010) addressing distinct elements

of employee adaptation to organizational change (i.e., employee motivation, health and behavior). In a similar manner, we will not only examine whether employees are motivated to perform their work or to embrace the changes (i.e., motivational component), but also whether their levels of well-being are adequate (i.e., health component) and whether they perform adequately at their core tasks or their new tasks (i.e., behavioral component). Indicators of employee adaptation that we examine include: i. work engagement (i.e., a work-related state of mind characterized by vigor, dedication and absorption; Schaufeli, Bakker, & Salanova, 2006), ii. willingness to change (i.e., employee support and positive affect towards the changes; Miller et al., 1994), iii. exhaustion (i.e., the consequence of intensive physical, emotional and cognitive strain; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), iv. task performance (i.e., the extent to which employees fulfil the prescribed requirements of their role; Griffin, Neal, & Parker, 2007) and v. adaptivity (i.e., the degree to which employees cope with, respond to, and support changes that affect their roles as organization members; Griffin et al., 2007).

### 1.3 Regulatory focus theory

From the basic principles of regulatory focus theory it follows that individuals have distinct ways to regulate and organize their behavior in purposeful ways (Higgins, 1997; 1998). Most importantly, it is not simply individual motivational orientation that guides self-regulation but also the way in which this motivational orientation interacts with the environments where individuals act (Higgins, 2000; 2005). This has particular implications for organizational change. Previous literature reveals, for example, that both individual and contextual factors predict employee behaviors during organizational change or employee reactions to change (Oreg, Vakola, & Armenakis, 2011). Furthermore, based on regulatory focus theory, it could be expected that the interplay between individual and contextual factors is an additional force that shapes job crafting behaviors within organizational change contexts.

Regulatory focus theory (Higgins, 1997; 1998) distinguishes between two chronic motivational orientations, namely, promotion and prevention regulatory focus. On the one hand, promotion focused individuals are driven by their need to grow and develop and they are motivated by their “ideal selves” (i.e., their wishes, hopes and aspirations).

Furthermore, they frame their goals in terms of presence or absence of gains (e.g., “gains” and “non-gains”). On the other hand, prevention focused individuals are driven by their need for safety and security and they are motivated by their “ought selves” (i.e., their duties, obligations and responsibilities). Furthermore, they frame their goals in terms of presence or absence of loss (e.g., “losses” and “non-losses”). It has been proposed that in order to thrive within their changing organizations, employees should be provided with the factors that are consistent with their individual regulatory orientation. For example, the environment should address and fulfill promotion needs and values for promotion orientated employees and prevention needs and values for prevention oriented employees (Taylor-Bianco & Schermerhorn, 2006).

We want to examine empirically this possibility, namely, that employees adapt to change when environmental factors match with their individual regulatory focus. Environmental factors can match with individual regulatory focus either via their content (e.g., job characteristics) or via the framing of this content (e.g., regulatory orientation of the job environment). First, by being consistent or inconsistent with employee regulatory focus, job characteristics (e.g., workload or job autonomy) may interact with employee regulatory focus to predict employee outcomes. For example, a job environment which is rich in job resources should be more beneficial for promotion focused employees because it addresses their needs for growth and development (Bakker, Schaufeli, Leiter, & Taris, 2008). Second, by adopting explicitly a regulatory orientation that matches individual regulatory focus (e.g., by emphasizing promotion needs and values for promotion focused individuals and prevention needs and values for prevention focused employees) an environment may also motivate individuals (Stam, van Knippenberg, & Wisse, 2010). In the present thesis, therefore, we conceptualize the work environment and its motivating and non-motivating forces in two distinct ways, namely, its content (i.e., job characteristics) and its regulatory orientation. First, we focus on the characteristics of a work environment. These are the elements that constitute an employee’s job (e.g., the job demands and the job resources of a given work environment). Second, we focus on the regulatory orientation that is adopted by an organization when organizational changes are implemented (i.e., does an organization predominantly communicate and emphasize promotion or prevention needs and values?). To address these two elements of the work environment, we make use of the Job Demands-Resources (JD-R) model (Demerouti et al., 2001) and the regulatory focus theory (Higgins, 1997; 1998).

### 1.3.1 The Job Demands-Resources model

Job characteristics frameworks propose that employee motivation, health and performance are predicted by objective aspects of the job. The Job Demands-Resources model (Demerouti et al., 2001) describes two such processes and can, therefore, have implications for employee adaptation to organizational change. In the first process, the health impairment process, the demanding aspects of the job environment (i.e., job demands) are linked to impaired employee health. In the second process, the motivational process, the facilitating aspects of the job environment (i.e., job resources) are linked to increased employee motivation and they buffer the negative effects of demands on employee health. In this sense, employee adaptation during organizational changes will, at a certain extent, be impeded or facilitated by the demands and the resources of the changing environment (Schaufeli, Bakker, & van Rhenen, 2009). This process, however, could unfold in different ways for employees with different regulatory orientations. For example, by triggering their fears and sense of responsibility, job demands have more detrimental effects on the health of prevention rather than promotion focused employees (Brenninkmeijer, Demerouti, le Blanc, & van Emmerik, 2010). In a similar vein, by activating their need for development, resourceful job environments may have a stronger positive effect on the motivation of promotion rather than prevention focused employees (Bakker, Schaufeli, et al., 2008). The way these processes emerge during organizational change, however, still remains unexamined.

### 1.3.2 Regulatory orientation of the work environment

Job environments or tasks may not only be motivating in themselves but they may also have the potential to motivate employees by activating a promotion or a prevention focus. This can happen, for example, through the use of language, rewards or feedback (Brockner & Higgins, 2001). When goals that individuals pursue are framed in a promotion way for promotion focused individuals and in a prevention way for prevention focused individuals, regulatory fit occurs and positive motivational or performance outcomes are likely to arise for individuals (Lee & Aaker, 2004). For promotion focused employees that could entail, for example, presenting their job performance in terms of the desired level that should be attained (e.g., number of successfully completed projects for an organizational consultant). For prevention focused employees that could entail presenting their performance goals as the failures or undesired outcomes that should be avoided (e.g., client complaints or extensions in project deadlines for

an organizational consultant). In other words, the communication that is provided by an environment and its regulatory cues may interact with individual regulatory focus to enhance the motivation of individuals (Stam et al., 2010). Throughout this thesis, we address environmental regulatory orientation as the regulatory framing of organizational changes that is used within organizational communication. For example, a promotion orientated framing emphasizes how organizational change can help employees grow and develop in their jobs. A prevention oriented framing, on the other hand, emphasizes how organizational change can help employees perform their duties and what mistakes should be avoided in the new tasks. Therefore, we refer to regulatory fit within organizational change as the extent to which employee regulatory focus (i.e., promotion or prevention focus) matches with the regulatory framing of the changes used by the organization (i.e., promotion or prevention framing respectively). Although it has been suggested that employees should experience regulatory fit in order to embrace organizational change (Taylor-Bianco & Schermerhorn, 2006), there is lack of empirical evidence testing how exactly this process unfolds for employees of distinct regulatory orientations (i.e., promotion versus prevention focused employees).

The present thesis, therefore, aims at examining the interplay between the motivational orientation of employees (i.e., regulatory focus) and perceived aspects of the work environment and the link that this interplay potentially holds with employee adaptation to organizational change. We address the work environment not only in terms of its perceived characteristics (i.e., job demands and job resources) but also its regulatory orientation (promotion and prevention focus).

**Question 1:** Is the fit between the individual (i.e., regulatory focus) and the work environment (i.e., job demands, job resources and regulatory orientation) associated with employee adaptation to change?

## 1.4 Job crafting during organizational change

### 1.4.1 Conceptualization of job crafting

Job crafting entails changing and reshaping the tasks or the relationships that compose a job in order to keep the job challenging, motivating and healthy (Wrzesniewski & Dutton, 2001). Recent literature has drawn on the JD-R model (Demerouti et al.,

2001) in order to describe more in detail the behaviors that job crafting comprises. For example, job crafting refers to specific actions that job crafters perform in order to bring their job demands, their job challenges and their job resources at the levels that they prefer and, thus, increase their functioning at work (Tims & Bakker, 2010; Tims, Bakker, & Derks, 2012). Based on this stream of literature we refer to job crafting as voluntary self-initiated employee behaviors targeted at seeking job resources (e.g., asking advice or support from colleagues or the manager), seeking job challenges (e.g., asking for more or new responsibilities once one is done with their job tasks) and reducing job demands (e.g., eliminating emotionally, mentally or physically demanding job aspects).

We propose that by rearranging the elements of their job according to their needs and preferences, job crafters create an optimal work situation that helps them adapt to the demands of organizational change in the most efficient way. Therefore, throughout this thesis we view job crafting as a self-initiated strategy enacted by employees in order to deal with organizational changes. In order to address job crafting in the context of organizational change, we explore the factors within this context that can act as antecedents to job crafting and the effects that job crafting has on employee adaptation to change.

#### 1.4.2 Potential antecedents of job crafting during organizational change

Organizational change can be viewed as an ambiguous or weak situation. A situation is weak when it does not provide strong cues for the appropriateness of the responses to it (Mischel, 1977). In such situations, self-initiated employee behaviors become increasingly important because they enable new work roles to emerge and help employees adapt to the demands of the new situation (Griffin et al., 2007). In other words, employees are not passive recipients within the new situations emerging at their work. Instead, they can craft a new balance between the more motivating and the less motivating aspects of their jobs and arrange for themselves the facilitating elements they need in order to survive new and uncertain situations (Kira, Balkin, & San, 2012). At some extent, therefore, situational factors have the potential to trigger job crafting behaviors. For example, visible organizational changes of high impact in daily work practices of employees may act as a reason for employees to craft their jobs and, thus, adapt to the new demands dictated by the implemented changes. Similarly, the job demands and the job resources of the changing job environment may also stimulate or limit employee job crafting behaviors. In other words, a first set of factors that may act as antecedents



of job crafting behaviors during organizational change is to be found within the work environment (see Figure 1.1).

**Question 2:** Do aspects of the work environment (e.g., impact of organizational changes, job demands, job resources) function as antecedents of job crafting during organizational change?

Job crafting is not only triggered by situational factors but is also stimulated by individual differences and employee motivational orientations (Wrzesniewski & Dutton, 2001). For example, being motivated to approach gains rather than avoid failure, promotion focused employees strive to reach their ideals rather than comply with existing tasks and obligations (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008). Compared to prevention focused employees, promotion focused employees are more likely to implement changes to their jobs that will bring them closer to their desired situation (Tims & Bakker, 2010). Similarly, employees with a positive motivational orientation towards implemented organizational changes are more likely to display job crafting behaviors. Via such behaviors they co-operate with the change initiatives and facilitate their own adaptation to the new situation that emerges. On the contrary, changes that employees are aversive to, trigger counter-productive or even sabotage behaviors (Stensaker, Meyer, Falkenberg, & Haueng, 2002) and are, thus, not expected to stimulate job crafting. Therefore, individual motivational orientations of employees form an additional set of factors that have the potential to predict job crafting behaviors during organizational change (see Figure 1.1). Hence, we formulate:

**Question 3:** Do individual motivational orientations (e.g., regulatory focus or motivational orientation towards the changes) function as antecedents of job crafting during organizational change?

Most conceptualizations of job crafting imply that employees craft their jobs when they miss something or when there is a misfit with their environment (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). The role of job crafting in organizational change context can also be seen in terms of misfit with the job environment. In this uncertain and often unsettling context, organizational communication around the changes is usually what motivates employees to embrace change (Gilley, Gilley, & McMillan,

2009). Therefore, when organizational change communication is of low quality (e.g., lacks timely, useful and adequate information about the changes) employees may decide to reshape and restore their environment in such a way that they facilitate their adaptation. Indeed, job crafting is proposed as an employee strategy to survive uncertain job environments (Kira, van Eijnatten, & Balkin, 2010). However, not all employees have the same need for control or tolerance to ambiguity (Ashford, 1988). For example, prevention focused employees have a particular need for concrete information (Lee, Keller, & Sternthal, 2010) and are likely to engage in uncertainty reducing behaviors when they lack the information they need (Morrison, 2002). Therefore, the interplay between the individual (i.e., regulatory focus) and the work environment (for example, in terms of organizational change communication) could function as another antecedent of job crafting behaviors during organizational change (see Figure 1.1).

**Question 4:** Is the interplay between the individual (i.e., regulatory focus) and the work environment (e.g., organizational change communication) associated with job crafting behaviors?

### 1.4.3 The effects of job crafting on employee adaptation to organizational change

By modifying the components of their job so that they become more functional and effective, job crafters increase their sustainable capacity to adapt to the demands of today's rapidly changing work environment (Grant & Parker, 2009; Kira et al., 2010). By reshaping the demands and the resources of their changing environment, job crafters increase their feelings of authenticity during organizational change, namely, the feeling that they work in the right job (Kira et al., 2012). In other words, they transform their job into a more motivating experience that meets their needs and preferences. This way they create an optimal work environment that makes it easier for them to adapt to the new situation emerging during organizational change. Little is known, however, on empirical grounds about the effects that job crafting exerts on employee adaptation to organizational change. In fact, under certain occasions job crafting could also have dysfunctional effects, a possibility to which literature is rarely open (Oldham & Hackman, 2010). Therefore, in order to assess the extent to which job crafting can be a helpful employee strategy to deal with organizational change, we will examine the effects of job crafting on various indicators of employee adaptation to change.

Furthermore, we will explore if some of these effects are reciprocal in nature. In other words, do employees who adapt or do not adapt to change still craft their jobs? We, thus, formulate our last question:

**Question 5:** Do employee job crafting behaviours facilitate adaptation to organizational change and does adaptation to change lead to further job crafting?

## 1.5 Outline of this thesis

Taken together, the questions that we aim to explore can be summarized by Figure 1.1. The subsequent chapters of this thesis aim at exploring different parts of this framework<sup>1</sup>.

*Chapter 2* aims at examining employee regulatory focus as a moderator within the JD-R model in an organizational change context (Question 1). More specifically, it employs two independent samples of teachers in one secondary school (one before and one after an organizational change took place) to test the role of employee promotion and prevention focus as moderators within the relationships between: i) job demands and exhaustion, ii) job demands and willingness to change, iii) job resources and disengagement and iv) job resources and willingness to change.

*Chapter 3* examines the relationship between regulatory fit with the change and adaptation to change (Question 1). Our multi-method approach includes one experiment among students, one survey among employees of different occupations dealing with organizational changes and one weekly survey among secondary school teachers dealing with a teaching innovation. We explore whether the fit between individual regulatory focus and regulatory framing of the changes is associated with different indicators of adaptation to change (i.e., student task performance and self-reported employee job performance, exhaustion and work engagement).

*Chapter 4* reports on a diary study among employees of different occupations dealing with several organizational changes at their work. We examine whether the combination of one daily job demand (i.e., work pressure) and one daily job resource (i.e., job autonomy) is associated with daily job crafting behaviours (Question 2). Furthermore,

<sup>1</sup> The chapters of the present thesis have been submitted as independent papers to different journals, therefore, they may overlap with each other.

we test whether daily employee job crafting was associated with daily employee work engagement (Question 5).

*Chapter 5* presents a 2-wave longitudinal study among police officers dealing with reorganization. First, we explore whether the impact of organizational changes (Question 2) and employee motivational orientation towards the changes (Question 3) predict employee job crafting behaviours. Second, we explore the effects of job crafting on indicators of employee adaptation, namely, exhaustion and task performance (Question 5).

*Chapter 6* consists of two studies. Study 1 is a 3-wave longitudinal study among police officers dealing with reorganization. Study 2 is a weekly survey among employees of different occupational groups dealing with ongoing organizational changes. Our first aim is to examine if employee regulatory focus (Question 3) and the interplay between employee regulatory focus and organizational change communication (Question 4) are associated with job crafting behaviours. Our second aim is to examine if job crafting is associated with employee work engagement and adaptivity (Question 5).



## 2

Thinking of Change in  
Terms of “Gains” or “Losses”:  
Promotion Versus Prevention  
Focus as a Moderator in the  
Job Demands-Resources Model

**Based on:**

Petrou, P., & Demerouti, E. (2010). Thinking of change in terms of ‘gains’ or ‘losses’: Promotion versus prevention focus as a moderator in the job demands-resources model. *South African Journal of Industrial Psychology, 36*, 1–11.

## 2.1 Introduction

During the past several decades several studies have shown that particular job characteristics can be related to certain psychological and behavioural outcomes (for example, see a meta-analysis by Fried & Ferris, 1987; or a review by Schaufeli & Enzmann, 1998). It is generally accepted that job characteristics can be distinguished in job demands and job resources (Schaufeli & Bakker, 2004). A distinction which is incorporated in the job demands-resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Bakker, Demerouti, De Boer, & Schaufeli, 2003) proposing that, certain job demands relate primarily to impaired health and energy, whilst certain job resources are primarily related to work engagement; and, that job resources can buffer the impact of job demands on burnout (Bakker, Demerouti, & Euwema, 2005). The JD-R model has been validated across different occupations (Schaufeli & Bakker, 2004) and has been tested longitudinally (Mauno, Kinnunen, & Ruokolainen, 2007). It has also been extended to include personal resources as mediators between job resources and work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007; 2009).

022

2. Regulatory focus as a moderator in the JD-R model

Up to date the JD-R model has not been tested within a context of organisational change. The aim of the present study is to test and refine the JD-R model within a context of change, by including possible moderators for the basic two processes that are proposed by the model, namely the health impairment process (job demands leading to impaired health) and the motivational process (job resources leading to motivational outcomes). Apart from the two common health and motivational outcomes (namely emotional exhaustion and disengagement), openness to change will also be examined in order to accommodate organisational change. In our attempt to refine the model linking it to organisational change, the Regulatory Focus Theory (Higgins, 1997, 1998) was employed to test whether promotion and prevention as individual regulatory foci can play an important role during changes at the workplace. Although self-regulation has already theoretically been linked to organizational change (Taylor-Bianco, & Schermerhorn, 2006), the present study would endeavour to verify the link empirically. Regulatory Focus Theory is one of the few motivation and self-regulation theories that allows for equal consideration of the environment and the individual. It also has several implications for emotive responses at the workplace, individual-organisation fit and goal-setting behaviours. Furthermore, the theory explains what type of challenges can

motivate individuals, or how organisational changes can hold different meanings for individuals with different motivational tendencies (Brockner & Higgins, 2001). In this article, we argue that linking the JD-R model to self-regulation within a context of change is of particular importance.

## 2.2 The Job Demands-Resources model

To a certain extent, the JD-R model (Demerouti et al., 2001; Bakker, Demerouti, De Boer, & Schaufeli, 2003) was developed in order to address weaknesses of models, such as the Demand-Control model (Karasek, 1979) and the Effort-Reward Imbalance model (Siegrist, 1996), by providing a wider list of job demands and resources and the way they relate to health outcomes. The rationale of the JD-R model especially after the incorporation of personal resources (Xanthopoulou et al., 2007), bears a strong resemblance to the basic assumptions of “fortigenesis” (Strümpfer, 2006): that is, life is characterised by challenge, struggling and suffering due to inherent demands of the human condition, but there are also strengths and forces of resilience to negotiate those demands.

Job demands refer to “those physical, social, or organisational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” (Demerouti et al., 2001), whereas job resources refer to those “physical, psychological, social or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development” (Demerouti et al., 2001, p. 501).

One very important premise of the JD-R model is that two distinct psychological processes play a role in the development of job stress and motivation (Bakker & Demerouti, 2007). Firstly, the health impairment process, through which chronic job demands exhaust employee’s mental and physical resources and lead to health problems and emotional exhaustion. In the second process, motivational in nature, job resources have motivational potential and are negatively associated with disengagement. Furthermore, the JD-R model proposes that the interaction of job demands and resources can also play an important role in the development of job strain and motivation. For example,



job resources can buffer the impact of job demands on job strain (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003; Bakker et al., 2005).

However, up to date empirical studies involving the JD-R model primarily focused on work characteristics. Expanding the model, Xanthopoulou et al. (2007; 2009) showed that personal resources of employees can also be important determinants of employees' adaptation to the work environment. In particular, they found that job resources predicted personal resources (also at a daily level), which were further linked to work engagement. Xanthopoulou et al. (2007) also hypothesised but did not find that personal resources moderated the relation between job demands and emotional exhaustion. However, there have been change-related studies which demonstrate the moderating effects of individual differences with respect to the relationship between work characteristics and outcomes. For example, high mastery orientation has been shown to reduce the negative relationship between poor change management processes and perceived changes in person-environment fit (Caldwell, Herold, & Fedor, 2004). Proactive personality can moderate the relationship between access to resources and felt responsibility for constructive change (Fuller, Marler, & Hester, 2006). Also, change-related self-efficacy moderated the relationship between job stressors and job satisfaction (Jimmieson, Terry, & Callan, 2004).

Empirical examination of job demands and job resources and their health implications from an organisational change perspective is not new. For example, researchers have studied the health and motivational outcomes of several demands and resources throughout organisational changes. Those include, amongst others: workload, role ambiguity and change-related difficulties (Jimmieson, Terry, & Callan, 2004; Noblet, Rodwell, & McWilliams, 2006), social support (Cunningham, Woodward, Shannon, MacIntosh, Lendrum, Rosenbloom, & Brown, 2002), job control, role clarity, task identity (Korunka, Scharitzer, Carayon, & Sainfort, 2003), supervisory support (Verhaeghe, Vlerick, de Backer, van Maele, & Gemmel, 2008), job autonomy (Hornung & Rousseau, 2007), communication and participation (Bordia, Hobman, Jones, Gallois, & Callan, 2004). Job demands and resources have also been related to innovativeness and proactive behaviour (Hakanen, Perhoniemi, & Topinnen-Tanner, 2008; Salanova & Schaufeli, 2008; Fritz & Sonnentag, 2009) but not during actual organisational change. However, most of these studies usually fail to provide an

adequate theoretical rationale for the examination of a wide range of demands and resources, or to measure individual variables which can play an important role during changes, in addition to work characteristics.

In the present study the Regulatory Focus Theory developed by Higgins (1997; 1998), provides the theoretical basis to measure the role of personal resources within a context of change. The theory postulates that people are motivated by their need to align themselves with differential goals and standards. Therefore, they can attach differential meanings to job demands and job resources alike. This can further affect employees' motivation and health during organisational changes. In the following section we will review individual *promotion* versus *prevention focus* as regulatory factors in human functioning and we shall see how these constructs have been theoretically and empirically connected to environmental factors and change.

### 2.3 Promotion versus prevention regulatory focus

Regulatory Focus Theory (Higgins, 1997, 1998) distinguishes between two systems of self-regulation: Promotion focused individuals are driven by growth and development needs, they are motivated by their “ideal selves” (wishes, hopes and aspirations) and are sensitive to the presence or absence of positive outcomes (gains and non-gains). On the other hand, prevention focused individuals are driven by their need for safety; they are motivated by their “ought selves” (duties, obligations and responsibilities) and are sensitive to the presence or absence of negative outcomes (losses and non-losses). The theory predicts that promotion focus will be associated with tolerance to uncertainty and change, whereas a prevention focus will be associated with safety and stability. In Crowe and Higgins' (1997) research, it was shown that promotion focus was associated with a “risky” response bias, whereas prevention focus was associated with a “conservative” response bias. One of the first studies to link regulatory focus directly with change was that of Liberman, Idson, Camacho and Higgins (1999) which indicates that promotion focused individuals demonstrate a preference for change, whilst prevention focused individuals show a preference for stability.

However, promotion and prevention focus have not only been conceptualised as individual factors. Brockner and Higgins (2001) argue that regulatory focus can also

be a function of situational factors. They suggest that regulatory cues will be prominent within the incentives provided to individuals, as well as within different leadership styles through the use of different language and symbols. It seems thus, that regulatory cues can be found within situational factors. Such situational factors can be job characteristics, such as job resources, but also job demands. Kark and Van Dijk (2007) theorised that different types of leadership behaviour can foster different regulatory foci in employees. Whilst promotion focus of the leader will promote openness to change, risk taking and an innovation-oriented culture at the group level amongst employees, prevention focus of the leader will promote a preference for stability, risk aversion and a quality-oriented culture at the group level amongst employees. More interestingly, it has been proposed that when the regulatory focus instigated by the environment fits the individual regulatory focus, individuals will experience “regulatory fit” and that this can have a positive effect on motivation and performance (Shah, Higgins, & Friedman, 1998). Because change is a challenging situation and person-organisation fit has particular motivational implications, it has been argued that perception of regulatory fit at all hierarchical levels of an organisation plays a very important role during organisational changes (Taylor-Bianco, & Schermerhorn, 2006).

## 2.4 The present study

The central hypothesis of the present study is that the strength of the relationships predicted by the JD-R model (job demands are positively associated with emotional exhaustion and job resources are negatively associated with disengagement) will be different for different levels of individual promotion and prevention focus. Consequently, we focus on outcomes commonly examined by the JD-R model, namely emotional exhaustion and disengagement. Furthermore, because openness to change is an important factor enhancing adaptation to changes at the workplace (Wanberg & Banas, 2000), we will examine openness to change as an additional outcome next to emotional exhaustion and disengagement. In this way, our design can accommodate more explicitly and comprehensively for change as variable in the organisations under examination. This will be in line with other studies exploring the link between attitudes to change or commitment to change and job demands (Vakola & Nikolaou, 2005; Jimmieson et al., 2004) or job resources (Hornung & Rousseau, 2007).

In the present study the proposed interactions were tested in two samples of secondary school teachers. The study started with an investigation of the basic job demands and job resources. In consultation with the project team (including directors and teachers of some of the schools participating in the study) it was decided to take the measurement of workload and student misbehaviour as the most representative job demands of a teacher (this is also consistent with other studies, e.g. Van Horn, Schaufeli, & Enzmann, 1999) and participation, feedback and leader support as representative of job resources (also see, Hakanen, Bakker, & Schaufeli, 2006).

### 2.4.1 Job demands

As outlined earlier, job demands refer to those aspects of the job that require sustained physical or mental effort and can be associated with physiological and psychological costs and as such health (Demerouti et al., 2001). If we think of regulatory focus not exclusively as an individual construct, but also as a state that can be primed by situational cues (Higgins, Roney, Crowe, & Hymes, 1994), one can propose that job demands will be more inclined to activate the prevention focus in teachers. Prevention focus is primarily associated with a sense of obligation and responsibility (Higgins, 1997; 1998) and in-role, versus extra-role, performance (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008). Consequently, we can expect that teachers who are prevention focused will be experiencing regulatory fit and will benefit more from the prevention cues of job demands. Therefore, it can be expected that they will be better protected against adverse health outcomes of job stressors, than the teachers who are promotion focused. This positive effect may also be reflected in their performance, motivation and, in consequence, openness to change. Openness to change might sound contradictory here because it is generally accepted that prevention focus, as an individual preference, is regularly linked to a conservative tendency (Lieberman et al., 1999) and as such resistance to change. However, at the same time it has been shown that change messages can well be framed in a way that emphasises the prevention focus of the message (Latimer et al., 2008). Therefore, prevention focus is not always a barrier to change, but can facilitate change within a prevention focused environment. On the other hand, the opposite pattern of relationships could be expected amongst promotion focused teachers. The primed environmental focus will be inconsistent with their own chronic regulatory preference, thus, leading to the experience of misfit. In other words, promotion focused teachers are likely to experience a dissonance or distress because of the prevention cues of job demands.

**Hypothesis 1:** The positive relationship between job demands and emotional exhaustion will be stronger for individuals higher in promotion focus and individuals lower in prevention focus compared to their counterparts.

**Hypothesis 2:** The negative relationship between job demands and openness to change will be stronger for individuals higher in promotion focus and individuals lower in prevention focus compared to their counterparts.

### 2.4.2 Job resources

Job resources are not only necessary to deal with the job demands, but they are also important in their own right (Bakker & Demerouti, 2007). One of the three functions of job resources is the stimulation of personal growth and development (Demerouti et al., 2001). In addition to the previously argued proposed relationship between job demands and regulatory factors, we propose that job resources will primarily activate a promotion focus in teachers. Promotion focus is associated with aspirations, ideals and the need for growth (Higgins, 1997, 1998) and extra-role (versus in-role) behaviour (Neubert et al., 2008). This is consistent with Kark and van Dijk's (2007) theoretical proposition that charismatic leadership, which can be seen as a form of job resource, will mostly activate a promotion focus in employees. Consequently, it can be expected that teachers who are promotion focused will experience regulatory fit. As experience of fit is linked to motivational outcomes (Taylor-Bianco & Schermerhorn, 2006), promotion focused teachers are expected to benefit more from the positive outcomes of job resources and therefore demonstrate lower levels of disengagement and higher levels of openness to change. On the other hand, it is likely that the promotion cues of the job resources will lead prevention focused teachers to experience misfit. In other words, the lack of structure and the freedom that job resources sometimes produce, might be a source of dissonance or distress for prevention focused individuals who prefer structure and concrete responsibilities rather than opportunities to develop themselves.

**Hypothesis 3:** The negative relationship between job resources and disengagement will be stronger for individuals higher in promotion focus and individuals lower in prevention focus compared to their counterparts.

**Hypothesis 4:** The positive relationship between job resources and openness to change will be stronger for individuals higher in promotion focus and individuals lower in prevention focus than their counterparts.

## 2.5 Research design

### 2.5.1 Research approach

The present research, carried out on two samples of secondary school teachers, was survey-based, quantitative in nature and cross-sectional. An initial two-sample-design was proposed in order to provide for a longitudinal study to determine the influence of organisational change (before and after change groups). The notification and implementation of a new government policy, according to which teachers had to focus on talent development in pupils, served as the context of change variable. Unfortunately it was not possible to test for the longitudinal effect of change on the same sample in a “before and after” research design, due to the relocation of many teachers between the two testing periods. However, two independent samples were retained. The first sample consisted of teachers who received notification of the new policy, whilst the second sample (with no teachers who were involved in the first survey) consisted of teachers who had to implement the new policy of talent development in pupils.

### 2.5.2 Research participants & procedure

A total sample of 164 teachers from 7 secondary schools in the Netherlands participated in the first survey and 189 different teachers from the same schools participated in the second survey (12 months after the first survey). The questionnaire had the form of an on-line survey. All teachers received an e-mail with a link to the survey, along with a short description of the study. They were also informed that participation in the study was voluntary and anonymous. Response rate was about 75% for the first sample and 55% for the second sample. The first sample included 108 women (65.9%) and 56 men (34.1%). The mean age was 44.6 ( $SD = 9.9$ ) and the mean tenure was 7.4 years ( $SD = 6.9$ ). Of the teachers in the first sample, 82% had been formally notified about the new government policy according to which they would have to focus on talent development in pupils. In the second sample, consisting of teachers implementing the new policy, the mean age was 42.6 ( $SD = 10.5$ ), the mean tenure was 9 years ( $SD = 8.3$ ) and the respondents were evenly distributed between 92 men (48.7%) and 99 women (51.3%).

### 2.5.3 Research instruments

*Workload.* Workload was measured with 4 items based on a Dutch version (Bakker, Demerouti, De Boer, & Schaufeli, 2003) of Karasek's (1985) Job Content Instrument. The scale refers to demanding aspects of a job and it was adjusted for the teaching profession. A sample item is "Do you have much work to do as a teacher?". Items were scored on a 5-point Likert-type scale ranging from "1 = never" to "5 = always". Cronbach's alpha was .82 for the first sample and .89 for the second sample.

*Student misbehavior.* Student misbehaviour was measured with a 6-item scale adapted from Kyriacou and Sutcliffe (1978). The respondents were asked to indicate the severity of stress caused by certain stress factors, such as "noisy students" and "pupils who show a lack of interest". The items were scored on a 5-point Likert-type scale ranging from "1 = no stress" to "5 = extreme stress". Cronbach's alpha was .90 for the first sample and .88 for the second sample.

*Feedback.* Feedback was measured with three items of the Job Diagnostic Survey (Hackman & Oldham, 1980). A Dutch version of the items has been used by Demerouti (2006). The items were adjusted for the teaching profession. Items were scored on a 5-point Likert-type scale ranging from "1 = never" to "5 = always". A sample item is "I get sufficient information about the results of my work as a teacher". Cronbach's alpha was .82 for the first sample and .89 for the second sample.

*Participation.* The measurement of participation in change was based on a 4-item scale constructed by Wanberg and Banas (2000). All the items were adjusted to accommodate the specific change variable of the study, using the phrase "Talent Development" ("Talentvol ontwikkelen") to refer to the new policy introduced to secondary schools. A sample item is "If I want to, I can have input into the decisions being made about the Talent Development". The items were scored on a 5-point Likert-type scale ranging from "1 = never" to "5 = always". Cronbach's alpha was .75 for the first sample and .83 for the second sample.

*Leader support.* Leader support was measured with the 7-point leader-member exchange scale developed by Janssen and Van Yperen (2004). Items were scored on a 5-point Likert-type scale ranging from "1 = never" to "5 = always". A sample item is "My supervisor



would personally be inclined to help me solve problems in my work". Cronbach's alpha was .93 for the first sample and .95 for the second sample.

*Individual regulatory focus.* Regulatory focus of respondents was measured with the 18-item Promotion/Prevention scale constructed by Lockwood, Jordan and Kunda (2002) adjusted for teachers. In the first sample we used the two 9-item scales to measure promotion and prevention focus. Items were scored on a 5-point Likert type scale ranging from "1 = seldom/never" to "5 = to a great extent". A sample item for promotion focus is "I often think about how I will achieve success in my work as a teacher" and a sample item for prevention focus is "I frequently think about how I can prevent failures at school". In the second sample we used short versions of the scales based on the reliability coefficients of the original scales used in the first sample. We, thus, decided to use a 7-item scale for prevention focus and a 6-item scale for promotion focus. Cronbach's alpha for promotion focus was .70 in the first sample and .76 in the second sample. For the prevention focus it was .69 in the first sample and .70 in the second sample.

*Burnout.* Burnout was measured with the Oldenburg Burnout Inventory (Demerouti et al., 2001; 2003). Items were scored on a 4-point Likert-type scale ranging from "1 = totally disagree" to "4 = totally agree". Emotional exhaustion was measured with 8 items, of which four items were positively worded and four were negatively worded. Sample items are: "After my work, I usually feel worn out and weary" and "After work, I have enough energy for my leisure activities" (reversed). Cronbach's alpha was .87 for the first sample and .78 for the second sample. Disengagement was measured with 8 items. Similarly, four items were positively worded and four were negatively worded. Sample items are: "It happens more and more often that I talk about my work in a negative way" and "I feel more and more engaged in my work" (reversed). Cronbach's alpha was .78 for the first sample and .79 for the second sample.

*Openness to change.* Openness to change was measured with a 10-item scale developed by Miller, Johnson and Grau (1994) adjusted for the specific change variable of this study. Items were scored on a 5-point Likert-type scale ranging from "1 = totally disagree" to "5 = totally agree". A sample item is "I consider myself open to the changes Talent Development is going to bring about in my role at work". Cronbach's alpha was .86 for the first sample and .89 for the second sample.



#### 2.5.4 Statistical Analysis

To test our interaction hypotheses, moderated regression analyses were applied using SPSS regression. All the two-way interaction effects were tested separately for every job demand and every job resource, resulting in a series of 20 hierarchical regression analyses for two outcomes (namely, emotional exhaustion and openness to change for job demands and disengagement and openness to change for job resources). In all the first steps we entered the independent variable along with the moderator and in the second steps we entered all centered interaction terms (Aiken & West, 1991). Prior to the analyses, all variables were screened for normality. The majority of the variables had skewness between  $\pm 2$  and kurtosis between  $\pm 3.29$ , meeting the accepted criteria for normality (Tabachnick & Fidell, 2000). The assumptions for regression analysis (homoscedasticity, absence of multicollinearity, independent errors and linearity) were also met.

## 2.6 Results

Table 2.1 and Table 2.2 show the means (with standard deviations) and intercorrelations between the study variables for the first and the second sample respectively. Job demands demonstrate moderate to high correlations with emotional exhaustion in both samples with  $|.28| < r <|.52|$  ( $p < .01$ ). The relationships between job resources and disengagement within the two samples varied from non-significant to moderate negative relationships (e.g.  $-.27$ ,  $p < .001$ , between disengagement and feedback in the second sample). Relationships between job demands or resources and openness to change within the samples also varied from non-significant to moderate. The highest was that between openness to change and participation:  $.40$  ( $p < .001$ ) in the first sample and  $.34$  ( $p < .001$ ) in the second sample.

**Table 2.1.** Means, standard deviations and correlations between the variables in Sample 1 ( $N=164$ )

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Workload	3.62	0.75									
2. Student misbehaviour	2.05	0.78	.02								
3. Feedback	2.61	0.75	.05	-.05							
4. Participation	2.61	0.85	-.18*	.00	.07						
5. Leader support	2.90	0.81	-.01	.03	.31***	.15					
6. Promotion focus	2.96	0.51	.19*	-.21**	-.04	.08	.17*				
7. Prevention focus	2.03	0.47	.21**	.23**	.02	.05	.15*	.34**			
8. Emotional exhaustion	2.33	0.52	.52***	.31***	-.09	-.15	-.14	-.09	.24**		
9. Disengagement	2.17	0.44	.24*	.24**	-.04	-.09	-.24**	-.09	.20*	.60***	
10. Openness to change	3.36	0.70	-.24**	-.15*	.01	.40***	.12	.13	-.15	-.30***	-.40***

\* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

**Table 22.** Means, standard deviations and correlations between the variables in Sample 2 (N=189)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Workload	3.62	0.88									
2. Student misbehaviour	2.02	0.74	-.06								
3. Feedback	2.65	0.90	.06	-.14							
4. Participation	2.66	0.94	-.05	.02	.07						
5. Leader support	2.85	0.96	.00	-.20**	.23**	.17*					
6. Promotion focus	3.30	0.64	.17*	-.11	.15*	.16*	.23***				
7. Prevention focus	2.15	0.58	.06	.11	.02	-.05	-.11	.23***			
8. Emotional exhaustion	2.26	0.46	.46**	.28***	-.19**	-.09	-.13	-.09	.24***		
9. Disengagement	2.18	0.49	.08	.23***	-.27***	-.02	-.16*	-.31***	.07	.48***	
10. Openness to change	3.31	0.70	-.07	-.17*	-.01	.34***	.17*	.26***	-.01	-.24***	-.43***

\* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

Tables 2.3 and 2.4 show the results of the moderated regression analyses with job demands as independent variables and emotional exhaustion and openness to change as dependent variables for the first and second sample respectively. No interaction terms were found significant for the relationship between job demands and emotional exhaustion; hence Hypothesis 1 was not confirmed. Regarding the next hypothesis, the interaction term of promotion focus and student misbehaviour was significant, in the hypothesized direction (see Figure 2.1), for openness to change in the first sample ( $\beta = .17, p < .05$ ), providing only partial support to Hypothesis 2. This implies that only for teachers high in promotion focus, higher student misbehaviour was associated with less openness to change.

Tables 2.5 and 2.6 show the results for the moderated regression analyses with job resources as independent variables and disengagement and openness to change as dependent variables for the first and the second sample respectively. Hypothesis 3 was partially supported in the expected direction: In the first sample, the negative relationship between feedback and disengagement was stronger for individuals high in promotion focus ( $\beta = -.19, p < .05$ ; see Figure 2.2). In the second sample the relationship was weak for individuals high in prevention focus, but strong for individuals low in prevention focus ( $\beta = .60, p < .01$ ; see Figure 2.3). Also, in the second sample, in contrast to our expectations, the negative relationship between leader support and disengagement was stronger for individuals high in prevention focus ( $\beta = -.23, p < .001$ ; see Figure 2.4), but as hypothesized it was also stronger for individuals high in promotion focus ( $\beta = -.16, p < .01$ ; see Figure 2.5).

Hypothesis 4 was partially supported. In the first sample the positive relationship between participation and openness to change was stronger for individuals high in promotion focus ( $\beta = .17, p < .01$ ; see Figure 2.6), but contrary to our expectations it was also stronger for individuals high in prevention focus ( $\beta = .16, p < .01$ ; see Figure 2.7). In the second sample, as hypothesised, it was stronger for individuals low in prevention focus ( $\beta = -.15, p < .05$ ; see Figure 2.8).

**Table 2.3.** Regression of emotional exhaustion and openness to change on job demands, promotion and prevention focus in sample 1 ( $N = 164$ )

Step	Model	Emotional Exhaustion			Openness to Change		
		$\beta$	$\Delta R^2$	$\Delta F$	$\beta$	$\Delta R^2$	$\Delta F$
1	Promotion focus	-.20**			.17*		
	Workload	.55***	.30	35.03***	-.28***	.09	7.85***
2	Promotion focus $\times$ Workload	.00	.00	.00	-.10	.01	1.81
1	Prevention focus	.13			-.10		
	Workload	.49***	.28	31.85***	-.22**	.07	5.67**
2	Prevention focus $\times$ Workload	-.04	.00	.37	.10	.00	.02
1	Promotion focus	-.02			.08		
	Student Misbehaviour	.31***	.10	8.82***	-.16*	.03	2.84
2	Promotion focus $\times$ Student Misbehaviour	.02	.00	.08	-.18*	.03	5.20*
1	Prevention focus	.17*			-.10		
	Student Misbehaviour	.27***	.13	11.66***	-.12	.04	3.04
2	Prevention focus $\times$ Student Misbehaviour	.01	.00	.02	-.07	.01	.84

\* $p \leq .05$ , \*\* $p \leq .01$  \*\*\* $p \leq .001$

036

**Table 2.4.** Regression of emotional exhaustion and openness to change on job demands, promotion and prevention focus in sample 2 ( $N=189$ )

Step	Model	Emotional Exhaustion			Openness to Change		
		$\beta$	$\Delta R^2$	$\Delta F$	$\beta$	$\Delta R^2$	$\Delta F$
1	Promotion focus	-.18**			.30***		
	Workload	.49***	.24	29.13***	-.12	.08	8.34***
2	Promotion focus $\times$ Workload	-.03	.00	.22	.12	.01	2.65
1	Prevention focus	.21***			.00		
	Workload	.44***	.25	31.47***	-.07	.01	.50
2	Prevention focus $\times$ Workload	-.10	.01	2.35	.03	.00	.13
1	Promotion focus	-.07			.25***		
	Student Misbehaviour	-.12	.02	2.05	-.14	.09	8.86***
2	Promotion focus $\times$ Student Misbehaviour	-.01	.00	.01	.04	.00	.32
1	Prevention focus	.21**			.01		
	Student Misbehaviour	.26***	.12	13.21***	-.17*	.03	2.65
2	Prevention focus $\times$ Student Misbehaviour	.07	.01	1.06	.05	.00	.43

\* $p \leq .05$ , \*\* $p \leq .01$  \*\*\* $p \leq .001$

**Table 2.5.** Regression of disengagement and openness to change on job resources, promotion and prevention focus in sample 1 ( $N = 164$ )

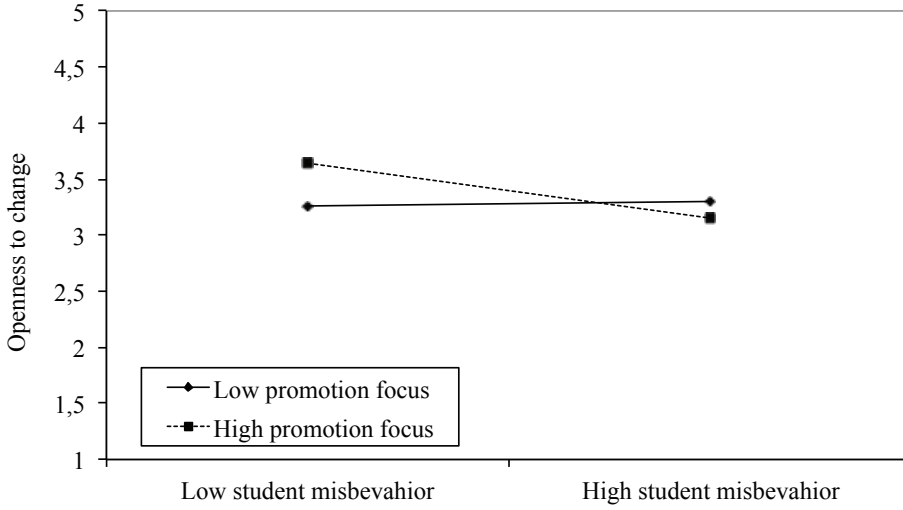
Step	Model	Disengagement			Openness to Change		
		$\beta$	$\Delta R^2$	$\Delta F$	$\beta$	$\Delta R^2$	$\Delta F$
1	Promotion focus	-.08			.13		
	Feedback	-.02	.01	.78	.02	.02	1.44
2	Promotion focus $\times$ Feedback	-.19*	.04	6.20*	-.02	.00	.05
1	Prevention focus	.20*			-.14		
	Feedback	-.04	.04	3.37*	.01	.02	1.74
2	Prevention focus $\times$ Feedback	-.06	.00	.50	-.08	.01	1.06
1	Promotion focus	-.08			.11		
	Participation	-.08	.01	1.16	.37***	.17	16.20***
2	Promotion focus $\times$ Participation	-.01	.00	.02	.17*	.03	5.58*
1	Prevention focus	.20*			-.18*		
	Participation	-.09	.05	4.01*	.42***	.18	18.14***
2	Prevention focus $\times$ Participation	.01	.00	.02	.16*	.03	5.25*
1	Promotion focus	-.05			.12		
	Leader support	-.23**	.06	4.95**	.10	.03	2.16
2	Promotion focus $\times$ Leader support	-.09	.01	1.36	.05	.00	.35
1	Prevention focus	.25**			-.17*		
	Leader support	-.28***	.11	10.02***	.14	.04	3.38*
2	Prevention focus $\times$ Leader support	-.05	.00	.45	.00	.00	.00

\* $p \leq .05$ , \*\* $p \leq .01$  \*\*\* $p \leq .001$

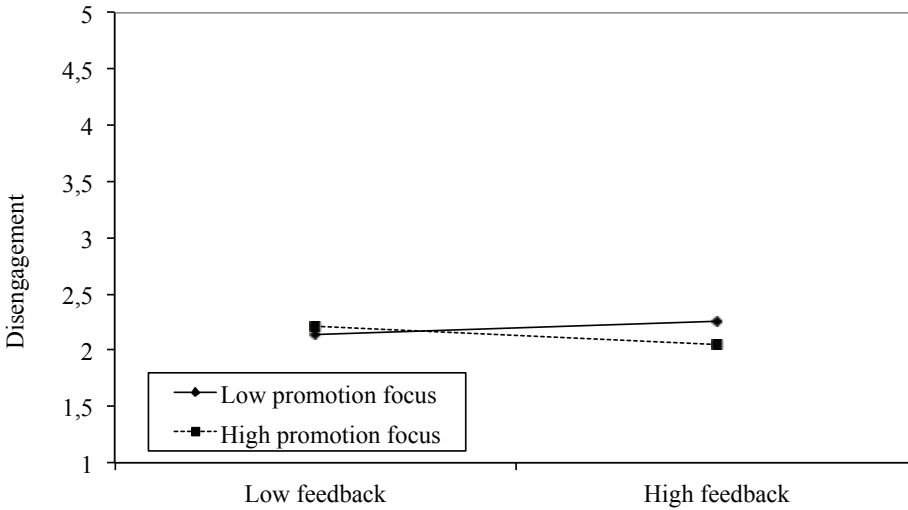
**Table 2.6.** Regression of disengagement and openness to change on job resources, promotion and prevention focus in sample 2 ( $N=189$ )

Step	Model	Disengagement			Openness to Change		
		$\beta$	$\Delta R^2$	$\Delta F$	$\beta$	$\Delta R^2$	$\Delta F$
1	Promotion focus	-.27***			.27***		
	Feedback	-.22**	.14	15.53***	-.05	.07	7.08***
2	Promotion focus $\times$ Feedback	.00	.00	.00	.00	.00	.00
1	Prevention focus	-.49*			.02		
	Feedback	-.30***	.08	7.72***	-.01	.00	.01
2	Prevention focus $\times$ Feedback	.60**	.04	7.23**	-.03	.00	.01
1	Promotion focus	-.32***			.22***		
	Participation	.02	.10	9.71***	.31***	.16	17.18***
2	Promotion focus $\times$ Participation	-.04	.00	.29	.08	.01	1.46
1	Prevention focus	.06			.03		
	Participation	-.02	.01	.46	.33***	.11	11.77***
2	Prevention focus $\times$ Participation	.06	.00	.65	-.15*	.02	4.52*
1	Promotion focus	-.26***			.22**		
	Leader support	-.07	.10	10.62***	.09	.08	8.11***
2	Promotion focus $\times$ Leader support	-.16**	.03	5.32*	.14	.02	3.53
1	Prevention focus	.01			.01		
	Leader support	-.17**	.03	2.79	.17*	.03	2.70
2	Prevention focus $\times$ Leader support	-.23***	.05	10.62***	.02	.00	.05

\* $p \leq .05$ , \*\* $p \leq .01$  \*\*\* $p \leq .001$

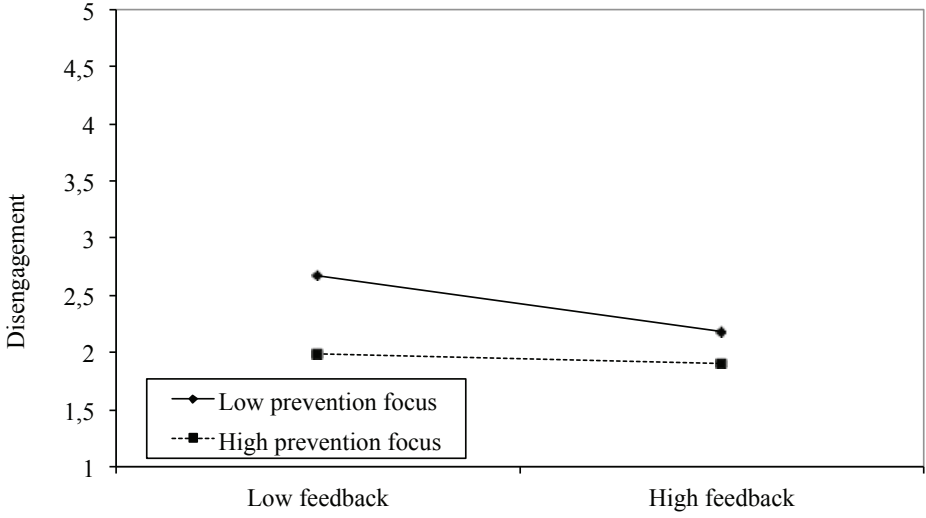


**Figure 2.1.** Promotion focus moderating the relationship between student misbehaviour and openness to change in sample 1

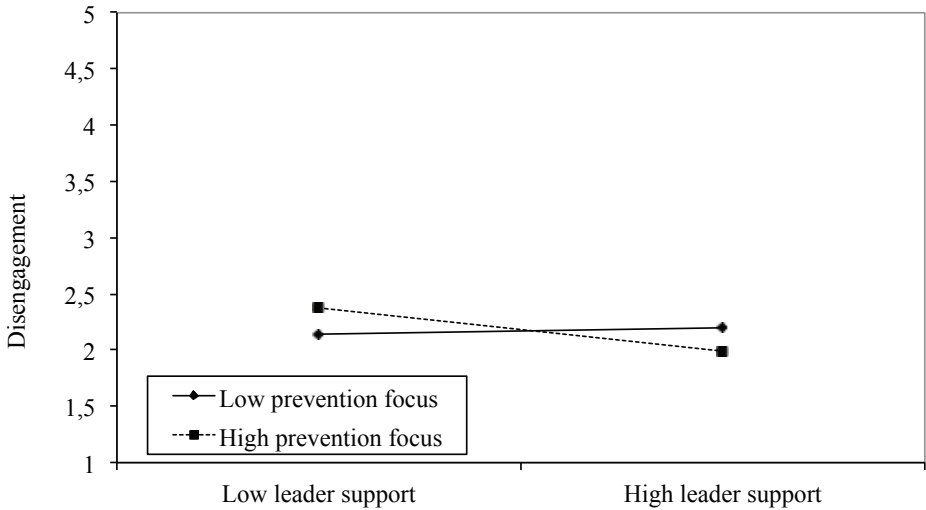


**Figure 2.2.** Promotion focus moderating the relationship between feedback and disengagement in sample 1

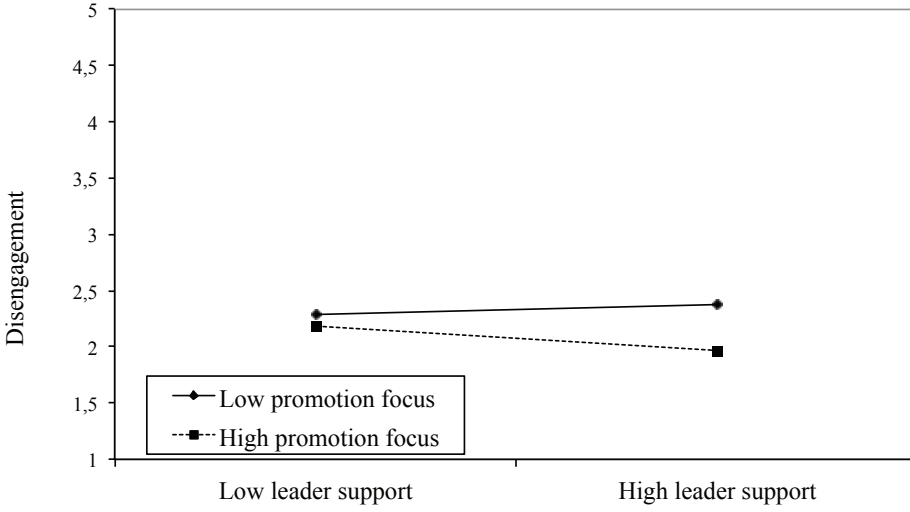




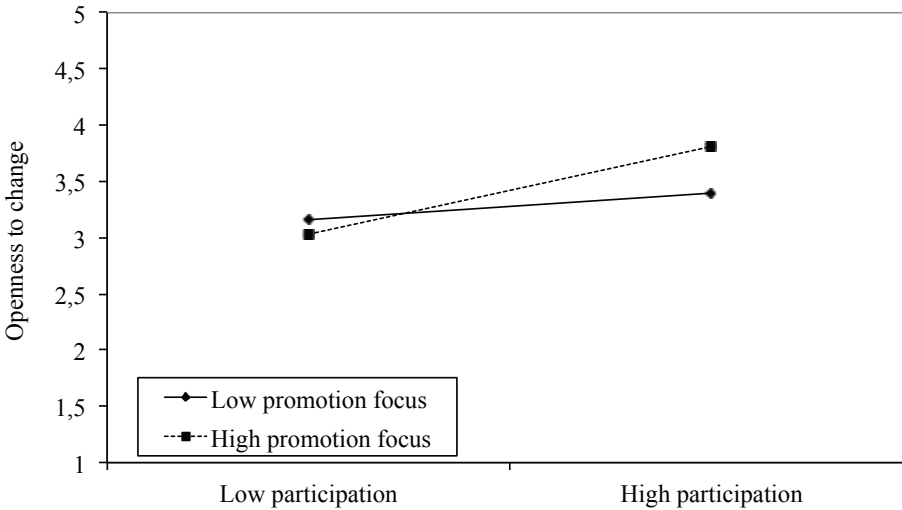
**Figure 2.3.** Prevention focus moderating the relationship between feedback and disengagement in sample 2



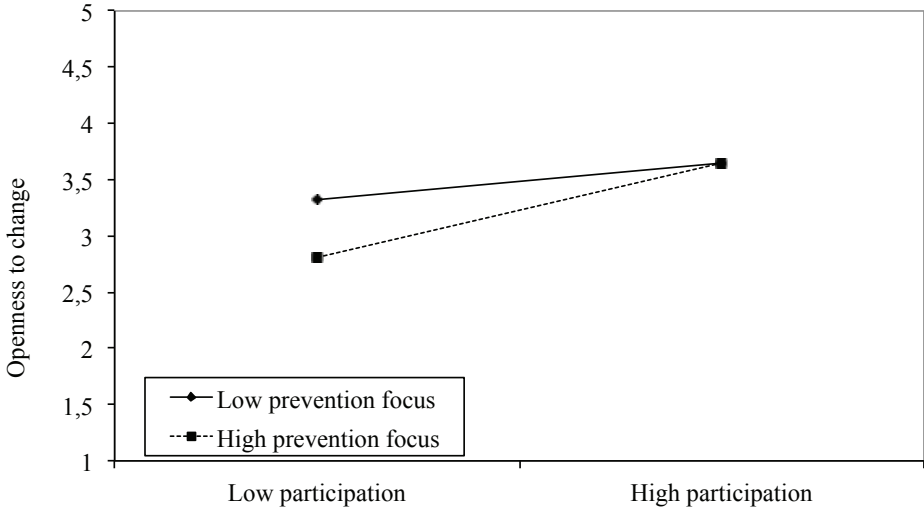
**Figure 2.4.** Prevention focus moderating the relationship between leader support and disengagement in sample 2



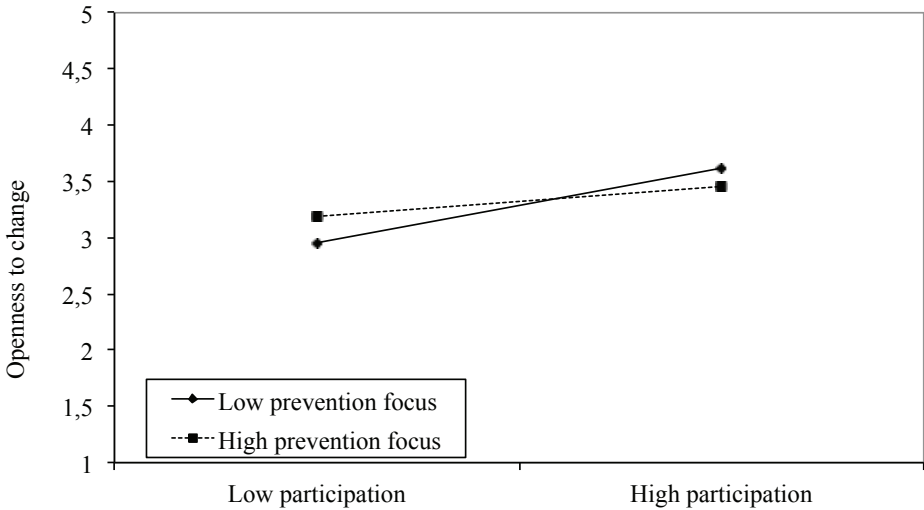
**Figure 2.5.** Promotion focus moderating the relationship between leader support and disengagement in sample 2



**Figure 2.6.** Promotion focus moderating the relationship between participation and openness to change in sample 1



**Figure 2.7.** Prevention focus moderating the relationship between participation and openness to change in sample 1



**Figure 2.8.** Prevention focus moderating the relationship between participation and openness to change in sample 2

## 2.7 Discussion

The aim of the present study was to examine whether promotion and prevention focus as personal regulatory factors can moderate the relationship between job demands-resources on the one hand and burnout and openness to change on the other hand. No interaction term was found significant for the relationships between job demands and emotional exhaustion and only one interaction term involving promotion focus was significant for the relationship between student misbehaviour and openness to change. Regarding job resources, both promotion and prevention focus moderated the relationships between feedback and disengagement, between leader support and disengagement and between participation and openness to change.

The lack of findings in relation to job demands might seem confusing at first sight. However, Xanthopoulou et al. (2006) found that personal resources did not offset the relationship between job demands and emotional exhaustion, but only mediated the link between job resources and work engagement. In other words, it might be the case that due to the intensity of job demands it is unlikely that the health process of the JD-R model can be moderated by individual variables. However, this might not be the case for the disengagement path, which (due to its motivational nature) can allow personal factors to play a role in the development of outcomes. As expected, student misbehaviour was negatively related to openness to change before the implementation of changes, more so for teachers who reported high promotion focus. One can therefore conclude, that the teachers who are promotion focused, being motivated by their wishes, hopes, aspirations and ideals (Higgins 1997; 1998) are discouraged by a noisy and disrespectful classroom and that they might actually be disillusioned in their idealistic expectations. Consequently, they are less eager to embrace changes, as their motivation has been challenged. The reason why this effect was not significant in the second sample may be due to the fact that promotion focused teachers were intrigued by the new opportunities created by the actual implementation of the changes. Therefore, their motivation could have been restored.

Regarding the job resources, it was found as expected that the negative link between feedback and disengagement was stronger for teachers high in promotion focus, but only in the first sample and also stronger for teachers low in prevention focus, but only

in the second sample. It has been argued that feedback can prime both promotion and prevention foci in individuals (Roney, Higgins, & Shah, 1995; Brockner & Higgins, 2001). However, this should mainly be interpreted in terms of promotion and prevention focused individuals' differential preference for positive and negative feedback respectively. In our study we did not measure perceptions of positive or negative feedback, but rather received feedback *per se*. It is, thus, reasonable to assume that promotion focused individuals, being motivated by their need for advancement and development (Higgins, 1997, 1998) will benefit more from received feedback than prevention focused individuals.

The two findings regarding leader support only occurred in the second sample, during the implementation of changes and initially seem contradictory. The relationship between leader support and disengagement was strong and negative both for teachers high in promotion focus and teachers high in prevention focus. That is, both promotion and prevention focused teachers benefit equally from a supportive leader. Brockner and Higgins (2001) have argued that organisational authorities can serve as role models, or use language and symbols that can prime differential regulatory foci in employees. For example, Kark and van Dijk (2007) argued that whilst charismatic or transformational leadership is priming more a promotion focus in followers, monitoring and transactional leadership is priming more a prevention focus. In the present study we conceptualised leader support as leader-member exchange. It might well be the case that both promotion and prevention focused employees experience in different ways a quality relationship with their supervisor which can prime foci in accordance with their chronic preferences. If during changes leaders approach employees and introduce changes to them in a way that is more consistent with their own needs and chronic regulatory focus (maybe by priming differential foci) it is then less striking that this pattern was only found in the second sample.

In line with the findings about leader support, the positive link between participation in changes and openness to change was enhanced both by high promotion and high prevention focus teachers in the first sample. Tseng and Kang (2008) showed that both promotion and prevention focus were positively related to uncertainty towards change. Although this finding is not consistent with our findings, it is worth noting that Tseng and Kang (2008) also found the same pattern of relationship for both foci.

Maybe highly promotion and prevention focused individuals can become more open to change by experiencing an opportunity to participate in it. However, when the changes are actually introduced and are implemented, felt responsibility can be higher in prevention focused individuals and participation might impede their motivation. Indeed, in the second sample, during the implementation of changes, the positive link between participation in changes and openness to change was less strong for teachers high in prevention focus.

### 2.7.1 Contribution and limitations of the study

The present study contributed to the literature in several ways. Firstly, this study retested and refined the JD-R model within a context of change by including an important individual factor of motivational nature as a moderator. Secondly, possible applications of the Regulatory Focus theory to organisational change were examined empirically. The rationale of this examination was based on the conceptualisation of the work environment according to the JD-R model. Thirdly, we did not only examine the implications of self-regulatory focus (i.e. promotion focus or prevention focus) of employees in organisations which are going to experience change, but also after actual changes were implemented. Promotion and prevention focus did manage to explain the strength of the relationship between several job characteristics and outcomes like disengagement, openness to change and, to a lesser extent, emotional exhaustion. In this way, the study contributed to establishing a conceptual and empirical link between self-regulation and organisational change.

Nonetheless, limitations in the present study should be noted. First, the data relied exclusively on self-report measures and no other sources of information were used. Secondly, the sample is representative of seven secondary schools and cannot be generalized across other working populations. Thirdly, the reliabilities of the regulatory focus instruments were not particularly high. Especially the reliability of the prevention focus scale was marginal and this could have affected the results. Further research should preferably use validated measures for individual regulatory focus. Finally, the present design was cross-sectional and thus causal relationships are not to be inferred. The reliance on cross-sectional self-reported data in this study may have inflated our results through common methods bias, although it does not invalidate research findings (Doty & Glick, 1998). Therefore, the second sample that was collected after the implementation of

changes was seen as an independent sample of participants and no comparisons could be made with the first sample which was collected before the changes were implemented. It is worth noting, however, that the study was initially aimed to be longitudinal. Perhaps uncertainty or imposed new demands during organisational changes made individuals less willing to participate in further surveys, therefore the same participants could not be found for the two samples in order to do a longitudinal study.

### 2.7.2 Implications

The findings of the study indicated that individual regulatory focus can moderate the motivational and energy processes proposed by the JD-R model. This may have implications for research and practice alike. Firstly, a great part of the literature describing the work environment using the JD-R model does not include personal variables as moderators or mediators in the model. Perhaps, we should acknowledge the role of individual factors in order to have a more comprehensive conception of how job demands and job resources affect employees' health and motivation. Furthermore, in the present study regulatory fit was used as a theoretical background to form hypotheses, but was not measured empirically. At the moment there are no validated or widely used measures of situational regulatory focus, or regulatory framing of introduced organizational changes. We argue that the co-examination of both individual and situational regulatory focus within the same research design will enhance the understanding of employees' willingness to facilitate organizational changes.

Furthermore, implications for management practice should be noted. It might be the case that job demands are not very easily buffered by personal factors. However, job resources can be used to activate employees' regulatory foci which are consistent with their own chronic regulatory foci. Resources like feedback or supervisory support are undoubtedly important for any employee. However, they can be used by different employees to respond to different needs. During changes, prevention focused employees might want to know how the change will help them to avoid loss or to perform duties adequately. For promotion focused employees, on the other hand, it might be more important to know how the change can be used to achieve gains or experience new challenges and to pursue their ideals. Therefore, a manager can use promotion and prevention framings interchangeably to facilitate adaptation to changes for employees with different chronic preferences.

In conclusion, it has to be stressed that regulatory focus and fit concerns human potential. It would be a misconception to think that there are positive and negative ways in which people regulate their behaviour. But an environment that does not accommodate individuals' differential needs can be seen as dysfunctional. Nurturing and responding to an individual's own motivational style in order to facilitate adaptation, means focusing on strengths and already existing potential instead of curing faulty tendencies and procedures. We believe that this is an important purpose that (positive) psychology should serve.





## 3

---

## When Fit Matters More: The Effect of Regulatory Fit on Adaptation to Change

**Based on the manuscript:**

Petrou, P., Demerouti, E., & Häfner, M., (2013). When fit matters more: The effect of regulatory fit on performance, work engagement and exhaustion during change. *Revise & Resubmit Status*.

### 3.1 Introduction

In their daily working lives people increasingly deal with changes. What helps individuals perform in new situations? Apart from effective change communication – a classic success factor in organizational change management (Kotter, 1995) – it is one's ability to create meaning from change that enhances adaptation (Van den Heuvel, Demerouti, Schreurs, Bakker, & Schaufeli, 2009). Specifically, a so called person-organization fit (Kristof-Brown, Zimmerman, & Johnson, 2005) seems to facilitate change. As the term implies, it is neither the organization nor the individual per se that help, but the degree to which employee values fit the change (Klein & Sorra, 1996).

Although frameworks treating person-environment fit as predictor of successful change are not always based on strong theoretical grounds, there is a notable exception. Regulatory focus theory (Higgins, 1997; 1998), which examines individual motivational styles, has implications for person-environment fit and organizational change (Brockner & Higgins, 2001). When people perceive tasks or environments as fitting their regulatory focus (i.e., motivational style), regulatory fit and positive outcomes arise (Higgins, 2005). Despite abundant evidence for the positive consequences of regulatory fit, it is not clear if these implications hold true when *adaptation to change* is required. Given the high failure rate of change initiatives (Burnes, 2005) and the dramatic economic challenges that we currently face (Chung, Bekker, & Houwing, 2012), it is not only empirically but also practically important to examine this link.

In the present article we therefore examine empirically if regulatory fit facilitates change. In particular, our studies aim at: i) expanding the existing link between regulatory fit and performance to include performance in changed tasks, following an experimental methodology and ii) testing the link between regulatory fit and employee adaptation during change implementation in organizational contexts.

### 3.2 Regulatory fit: A form of person-environment fit

Regulatory focus theory (Higgins, 1997; 1998) distinguishes between two chronic motivational orientations, promotion and prevention regulatory focus. Promotion focused individuals are driven by growth and development needs, they are motivated

by their “ideal selves” (i.e., wishes, hopes, aspirations) and are sensitive to the presence or absence of “gains” and “non-gains”. Prevention focused individuals are driven by a need for safety, they are motivated by their “ought selves” (i.e., duties, obligations, responsibilities) and are sensitive to the presence or absence of “losses” and “non-losses”. Regulatory focus is not only chronic characteristic. Environments or tasks can also activate a promotion or prevention focus through the use of situational cues, such as language, rewards or feedback (Brockner & Higgins, 2001). Therefore, by combining the focus of individuals and environments, conditions of fit or misfit are produced. Individuals experience regulatory fit when they pursue a goal using means that fit their regulatory orientation (Higgins, 2000), for example, when the environmental framing of outcomes they pursue matches their regulatory focus (Lee & Aker, 2004).

Person-environment fit should produce favorable outcomes (Kristof-Brown et al., 2005). But why is regulatory fit beneficial? People engage strongly in tasks when they experience regulatory fit, because they feel they do the “right” thing and they are more involved (Higgins, 2005). Experiencing fit makes a message relevant and polarizes attitudes, making positive attitudes more positive and negative attitudes more negative (Avnet & Higgins, 2006). Therefore, promotion focused individuals with promotion focused tasks and prevention focused individuals with prevention focused tasks are expected to experience favorable outcomes more compared to their misfit counterparts. Positive outcomes of regulatory fit include motivation and performance (Shah, Higgins, & Friedman, 1998), persuasion and positive attitudes (Cesario, Grant, & Higgins, 2004), learning (Grimm, Markman, Maddox, & Baldwin, 2008), and health behavior change (Spiegel, Grant-Pillow, & Higgins, 2004).

Although the link between regulatory fit and performance is established, (Förster, Higgins, & Idson, 1998; Keller & Bless, 2006) there is, to the best of our knowledge, no empirical evidence on the effects of regulatory fit on adaptation to organizational change. Research has explored implications of regulatory focus for change-related attitudes (Tseng & Kang, 2008) or choices (Lieberman, Idson, Camacho, & Higgins, 1999) or the role of regulatory fit in dynamic decision-making context (Otto, Markman, Gureckis, & Love, 2010), but not the role of regulatory fit in change implementation. In a time of continuous organizational change (Rafferty & Jimmieson, 2010) and painful transitions within work life (Wilke, 2012), this question becomes urgent.

Furthermore, since promotion focused individuals are generally open to change (Liberman et al., 1999), it becomes particularly important to examine how regulatory fit during change functions for prevention focused employees, who might be the ones that need the fit most when it comes to change.

### 3.3 Regulatory fit, performance and adaptation during change

Activities matching individual regulatory focus are viewed by individuals as important and valuable (Higgins, 2005). There is some evidence that this is also true when people consider new situations. Cesario et al. (2004) found that participants rated a hypothetical citywide policy proposal as positive and persuasive when its framing was consistent to their regulatory focus. It still remains to be tested, though, whether individuals who experience regulatory fit indeed perform better during change.

In addition to performance, there should be more indicators of successful adaptation to change. Change is stressful (Holmes & Rahe, 1967) and demanding (Monsell, 2003), therefore, adaptation can be inhibited by unwillingness or inability to respond. Exhaustion is a type of psychological strain that can be a result of organizational change (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004) and involves feeling depleted of one's emotional and physical resources (Maslach & Leiter, 2008). Work engagement, on the other hand, which is a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli, Bakker, & Salanova, 2006), indicates successful employee adaptation to change (van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). By enhancing self-confidence and the experience of feeling right, regulatory fit leads to improved health, subjective well-being (Aaker & Lee, 2006), and work engagement (Bakker, Schaufeli, Leiter, & Taris, 2008).

### 3.4 When "dissimilarity" matters more

Although both promotion and prevention focused employees resist change for different reasons (Brockner & Higgins, 2001), accumulating evidence indicates an asymmetry in the way promotion and prevention focused individuals approach change. For example, it is generally accepted that promotion focused individuals have a preference for change (Liberman et al., 1999), they are flexible (Wu, McMullen,

Neubert, & Yi, 2008) and focus more on similarities than dissimilarities in two given stimuli (Förster, 2009). Prevention focused individuals, on the other hand, are aversive to change (Liberman et al., 1999), security oriented and alert (Higgins, 1997), and focus on dissimilarities more than similarities (Förster, 2009). They also have a sharp perception of uncertainty (Tseng & Kang, 2008) and process information in a local rather than global manner, screening the environment to identify obstacles when threat is perceived (Förster & Higgins, 2005). Provided that changes signal dissimilarity, prevention focused individuals should be more alert during change. To the extent that changes are perceived as threats, prevention focused individuals are also expected to process the environment with scrutiny. In other words, they will make more use of situational cues and attach more value to a possible misfit, compared to promotion focused individuals who are open to change and feel that less is at stake.

Using a similar reasoning, Brenninkmeijer, Demerouti, Le Blanc, and Van Emmerik (2010) proposed that job demands have stronger detrimental effects on exhaustion for prevention focused employees because they trigger their fear of failure. Being stressful and demanding (Terry & Jimmieson, 2003), organizational change perhaps holds more prominent prevention rather than promotion cues and, thus, activates the prevention orientation of employees. Therefore, it is more likely for individuals with strong prevention focus to rely on situational cues and assess regulatory fit with organizational changes.

We proposed that prevention focused individuals are more prone to attend to change messages and assess the fit with the change environment. Since regulatory fit increases goal strength (Spiegel et al., 2004) and performance (Shah et al., 1998), it follows that regulatory fit with the change will lead to engagement and performance particularly for prevention but not necessarily for promotion focused employees. Promotion focused individuals are by nature willing to embrace change (Liberman et al., 1999). Therefore, they rely less on environmental cues so as to decide whether to react positively to change and regulatory fit with changes plays a less important role for them.

Regulatory fit also improves health and well-being (Aaker & Lee, 2006). Prevention focus becomes particularly important when stress is under study. Failure to attain prevention (versus promotion) goals leads to agitation (Brockner & Higgins, 2001)

and anxiety with, but not necessarily, weakened engagement and depressive symptoms (Klenk, Strauman & Higgins, 2011). Expanding this reasoning to include exhaustion, we propose that regulatory fit is particularly important for prevention focused individuals because prevention failure resulting from misfit has detrimental effects on them. Therefore, they will not only perceive regulatory misfit at a larger extent but also experience its negative outcomes more profoundly. Hence, we formulate:

**Hypothesis 1:** Fit between individual and situational prevention (but not promotion) regulatory focus during change is positively associated with performance.

**Hypothesis 2:** Fit between individual and situational prevention (but not promotion) regulatory focus during change is positively associated with adaptation to change.

**Hypothesis 3:** Fit between individual and situational prevention (but not promotion) regulatory focus during change is associated negatively with exhaustion and positively with engagement.

We conducted three studies to test our three hypotheses respectively. In all studies, individual regulatory focus, situational regulatory focus and their interaction were treated as independent variables, but we focused on different outcomes of regulatory fit across studies. Study 1 was an experiment among students who performed a task involving changing requirements with performance as dependent variable. Study 2 was a survey among employees dealing with organizational changes. The dependent variable was employee adaptation to changes. Furthermore, another study was designed to measure in a more dynamic and longitudinal way specific indicators of employee adaptation. Therefore, Study 3 was a weekly survey among employees undergoing organizational change over three weeks and the dependent variables were exhaustion and work engagement.

## 3.5 Study 1: Regulatory fit and performance in a changing task

### 3.5.1 Participants

Participants were 142 (52 men and 90 women) undergraduate students from a Dutch university and their mean age was 20.9 years ( $SD = 4.3$ ). Participants completed two Stroop tasks, of which the second had different instructions. Participants' individual regulatory focus (promotion vs. prevention) was assessed and they were randomly allocated in one of two conditions (promotion vs. prevention framing of the second task). This resulted in a  $2 \times 2$  factorial design. The dependent variable was the improvement of their performance in the second task.

### 3.5.2 Procedure

All tasks and questionnaires were computerized, programmed with Authorware 7.0 and administered individually in soundproof booths in sessions of 10-15 minutes.

### 3.5.3 Individual regulatory focus

We assessed individual regulatory focus with the self-guide strength measure (Higgins, Shah, & Friedman, 1997), that measures accessibility of respondents' "ideal" selves (= what they wish, hope or aspire to be) and "ought" selves (= what they believe is their duty, obligation or responsibility to be). The mean time participants need to list and rate attributes that describe their ideal selves represents promotion focus. The mean time they need to list and rate their ought selves represents prevention focus. Because reaction times were not normally distributed they were transformed using a natural logarithmic transformation (Fazio, 1990). Contrary to our expectations, the correlation between ideal and ought strength was  $r = .64, p < .001$ , showing that the measure did not differentiate between promotion and prevention focus in a very clear way. To illustrate this further we performed two median splits of the sample based on the ideal and ought strength measures. We found that 98 individuals (69% of the sample) were high on both ideal and ought strength or low on both ideal and ought strength. Therefore, for ease of interpretation of the results and to make a clearer distinction between promotion and prevention focus, we followed previous research (Liberman et al., 1999; Spiegel et al., 2004) and created a relative score of regulatory focus: We subtracted ought strength from ideal strength and based on this score we performed median split of the sample in predominantly promotion and prevention focused respondents.



### 3.5.4 Situational regulatory focus manipulation

Respondents were then asked to complete a Stroop task. On their computer screen they were exposed to color words depicted either in a matching or mismatching font color and they had to report as fast as possible the font color by choosing one out of four possible answers. After five practice trials, respondents received 30 trials with a pseudo-randomized proportion between infrequent congruent trials (word presented in a font color that matched its semantic meaning; e.g., “red” was presented in red font) and frequent incongruent trials (word presented in a font color that mismatched its semantic meaning; e.g., “red” was presented in green font). Stroop interference scores were computed by subtracting reaction times in congruent trials from reaction times in incongruent trials (Cothran & Larsen, 2008). Low scores in interference represent high task performance.

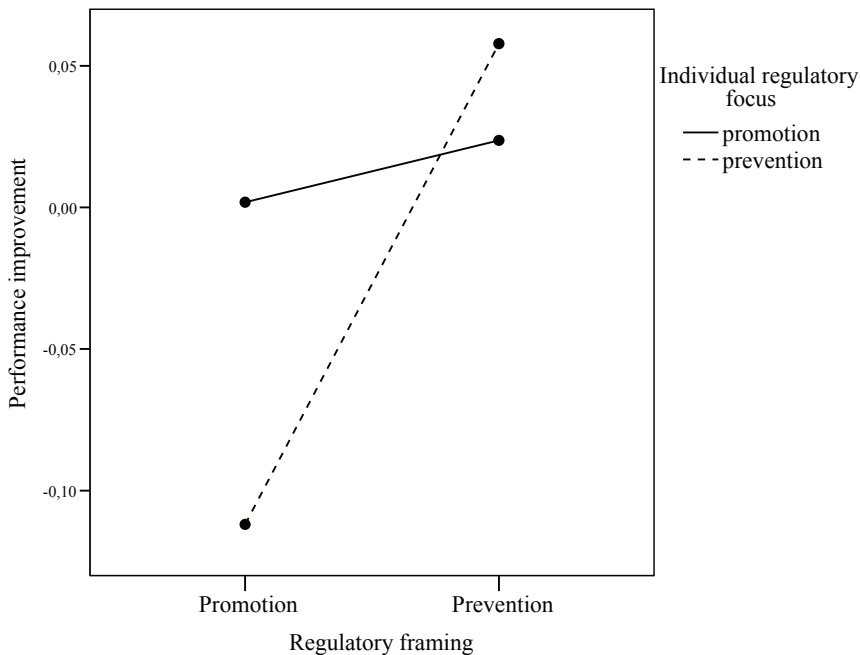
Participants were then asked to complete a second Stroop task. We manipulated the regulatory framing of our communication in the following way: Half of the participants received a promotion framing (“We now introduce a new time criterion in order for you to achieve a faster responding. The time-limit is adjusted to 4 seconds”) and half of them received a prevention framing (“We now introduce a new time criterion in order for you to better avoid mistakes. The time-limit is adjusted to 4 seconds”). In fact, there was no time limit in any task and the two tasks were identical.

All error trials (3.9% of total data points) were recoded as missing (Trawalter & Richeson, 2006). Two participants made errors in all incongruent trials. Because their interference could not be calculated, they were excluded from the analyses. Our dependent variable was performance improvement in the second task. We calculated performance improvement as interference in the second task subtracted from interference in the first task. High scores represent high performance improvement.

### 3.5.5 Results

To test our expectations, we conducted a 2 (promotion vs. prevention focused participants)  $\times$  2 (promotion vs. prevention framing of second task) ANOVA with improved performance as dependent variable. Individual regulatory focus of participants did not have a main effect on performance improvement,  $F(1, 136) = .44$ ,  $p = .51$ . The experimental manipulation had a marginal positive effect on performance

improvement,  $F(1, 136) = 3.75, p = .06$ . Because of the way we coded the experimental manipulation (i.e., promotion = 0, prevention = 1), this finding means that a prevention framing of the new task was associated with improved performance. The interaction between individual regulatory focus and the experimental manipulation was non-significant,  $F(1, 136) = 1.02, p = .32$ . However, simple contrasts revealed that, as hypothesized, prevention focus participants who received a prevention framing displayed higher performance improvement compared to prevention focused participants who received a promotion framing,  $F(1, 136) = 4.34, p < .05$ . As expected, promotion focused participants who received a promotion framing did not differ significantly in performance improvement compared to promotion focused participants who received a prevention framing,  $F(1, 136) = .43, p = .51$  (see Figure 3.1, for the plotted interaction). Therefore, hypothesis 1 is supported.



**Figure 3.1.** The effect of regulatory framing of the changing task moderated by individual regulatory focus.

Subsequently, Studies 2 and 3 examined effects of regulatory fit (i.e., between individual and situational regulatory focus) among employees in organizational contexts. Because the regulatory strength measure was less successful than expected in

differentiating between individual promotion and prevention focus in Study 1, in the subsequent studies we decided to use conventional questionnaires of regulatory focus. Questionnaires are commonly used to measure employee promotion and prevention focus and they normally result in non-significant (Wu et al., 2008) or positive average (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008) intercorrelations between promotion and prevention. Situational focus was conceptualized as the regulatory framing of organizational changes used by managers in their communication.

## 3.6 Study 2: Regulatory fit and adaptation to change

### 3.6.1 Participants

Invitations to participate in a survey were sent to 226 employees of Dutch organizations dealing with organizational changes. The participants who completed the survey were 100 (response rate = 44%). Their mean age was 42 years ( $SD = 13.2$ ) and 69 of them were women. They worked at their organization for a mean of 6.2 years ( $SD = 6.4$ ). The majority of them worked in the health sector (50%), followed by education (10%), business administration (9%), financial sector (4%), media and entertainment (4%) or other sectors. The organizational changes that they were undergoing included new tasks (45%), new ways of completing existing tasks (49%), new ways of working with colleagues or clients (39%), new technologies (43%), new products or services (18%), new location (34%), and flexible workspace (9%).

### 3.6.2 Procedure

Participants were invited to participate via email. Participation was voluntary and data were handled confidentially. The invitation contained a link to an online survey.

### 3.6.3 Survey

*Individual regulatory focus.* The regulatory focus of the participants was measured with the Work Regulatory Focus scale (Neubert et al., 2008). Based on factor loadings of the items, we used 5 items to measure promotion focus (e.g., “A chance to grow is an important factor for me when looking for a job”; Cronbach’s  $\alpha = .77$ ) and 5 items to measure prevention focus (e.g., “I focus my attention on avoiding failure at work”; Cronbach’s  $\alpha = .77$ ). Items were rated on a scale ranging from 1 (= totally disagree) to 6 (= totally agree).

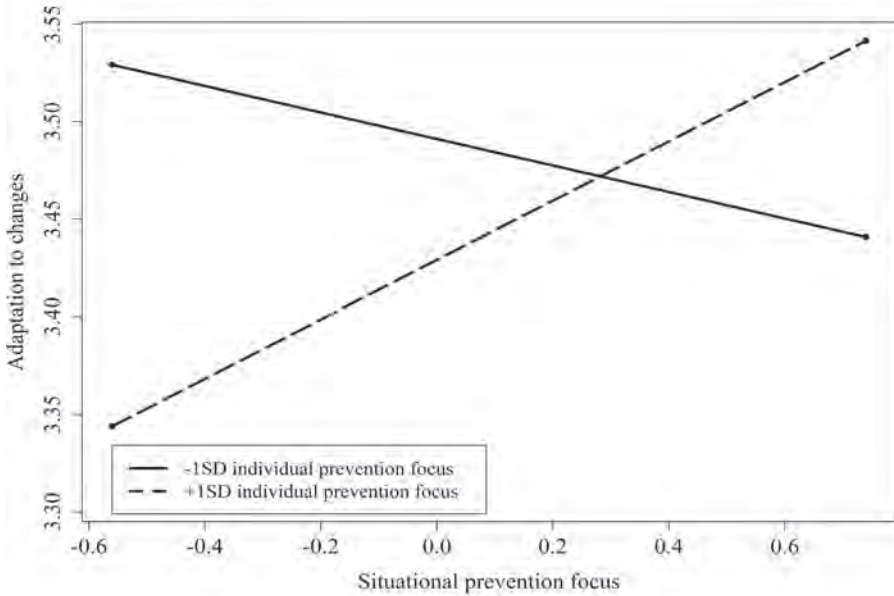
*Situational regulatory focus.* To measure regulatory framing of organizational changes by the manager, we adapted Neubert et al.'s (2008) scales so as to refer to change communication. Using a scale ranging from 1 (= totally disagree) to 6 (= totally agree), participants were asked to rate a number of statements following the introductory sentence "While communicating the change to us, our manager..." Promotion focus subscale (Cronbach's  $\alpha = .84$ ) consisted of 9 items (e.g., "... focuses on the way the change can help us further our professional growth") and prevention focus subscale (Cronbach's  $\alpha = .79$ ) included also 9 items (e.g., "...is oriented towards preventing failure in the new tasks").

*Adaptation to changes.* Employee adaptation to changes was measured with the 3-item individual task adaptivity scale by Griffin, Neal, & Parker (2007). A sample item is "Overall I adapt well to changes in my core tasks" (Cronbach's  $\alpha = .85$ ). Items were rated on a 5-point Likert type scale ranging from 1 (= never) to 5 (= always).

*Control variables.* Following previous organizational change research (Herscovitch & Meyer, 2002; Wanberg & Banas, 2000), we included two self-constructed single-items to control for the effect that changes may exert within our analyses. One item ("To what extent do the changes affect your daily life?") was used to measure the impact of the changes. The answering scale ranged from 1 (= I hardly experience them) to 10 (= I experience them daily). Via another item ("How positively or negatively do you rate the changes?") respondents indicated their attitudes towards the changes using a scale ranging from 1 (= very negative) to 10 (= very positive).

#### 3.6.4 Strategy of analysis

To test our second hypothesis, a hierarchical moderated regression analysis was conducted with adaptation to changes as dependent variable. In the first step, control variables included type of organization, impact of the changes and employee attitudes to the changes. The type of organization was dummy coded into a variable comparing health sector, which was the prevalent response (50%), to all other sectors. In the second step, we entered the standardized scores of individual and situational regulatory foci. In the third step we entered the interaction term between individual and situational promotion focus and the interaction term between individual and situational prevention focus.



**Figure 3.2.** The effect of situational prevention focus on adaptation to changes moderated by individual prevention focus

### 3.6.5 Results

Intercorrelations between the study variables revealed that individual promotion focus was unrelated to individual prevention focus ( $r = -.01, p = .93$ ), while situational promotion had a moderate positive correlation with situational prevention ( $r = .37, p < .001$ ). Regression analysis showed that individual promotion focus had a positive effect on adaptation ( $\beta = .05, SE = .05, p < .001$ ) while situational promotion had a non-significant effect on adaptation. Individual and situational prevention focus had non-significant effects on adaptation. The interaction term between individual and situational prevention focus had a significant effect on adaptation ( $\beta = .03, SE = .05, p < .05$ ). A graphical representation of the interaction can be found in Figure 3.2. Simple slope analysis revealed that when highly prevention focused individuals perceived high levels (compared to low levels) of situational prevention focus, they reported higher adaptation to organizational changes (estimate = .165,  $t(130) = 2.10, p < .05$ ). As expected, the interaction term between individual and situational promotion focus was unrelated to adaptation. Therefore, hypothesis 2 is supported.

Because of the limitations of cross-sectional studies, we examined the regulatory fit hypothesis for employees with a weekly study focusing on a wider range of outcomes.

## 3.7 Study 3: Regulatory fit, exhaustion and engagement during change

### 3.7.1 Participants

Participants were 30 teachers of a Dutch secondary school experiencing a transition from common to competency-based education. The implemented school policy included working on the skills of the students, matching theory with practice and using teamwork in education. Of the participants, 18 were men, 11 were women and one did not give demographic information. Their mean age was 45 years ( $SD = 8.49$ ) and they worked for a mean of 39 hours per week ( $SD = 8.18$ ). From the 95 teachers who were contacted, 55 returned the questionnaires. Of them, 30 completed all four surveys (response rate = 32%) and formed the sample for the analyses. Study completers did not differ significantly from drop-outs in any study variable.

### 3.7.2 Procedure

Participants were informed about the study through a presentation by a research assistant and were invited to participate voluntarily. The study involved one general survey and one weekly booklet, consisting of three identical weekly surveys. To participate, first, they had to fill in the general survey and then complete one weekly survey for three consecutive weeks at the end of each week. The general survey contained information about behaviors that participants generally demonstrate (general level), whereas the weekly surveys contained information about behaviors participants demonstrated during the previous week (week level).

### 3.7.3 General survey

*Individual regulatory focus.* The regulatory focus of the participants was measured with the two 9-item subscales of the Work Regulatory Focus scale (Neubert et al., 2008): Promotion focus (Cronbach's  $\alpha = .92$ ) and prevention focus (Cronbach's  $\alpha = .88$ ). Items were rated on a scale ranging from 1 (= totally disagree) to 6 (= totally agree).

*Situational regulatory focus.* To measure regulatory framing of organizational changes by the manager, we used the scale that we adapted in Study 2 based on Neubert et al. (2008), including 9 items for promotion (Cronbach's  $\alpha = .81$ ) and 9 items for prevention (Cronbach's  $\alpha = .84$ ).

*Exhaustion (general level).* Exhaustion was measured with Schaufeli, Leiter, Maslach, and Jackson's (1996) 5-item MBI-GS subscale (Cronbach's  $\alpha = .91$ ). Items (e.g., "I feel burned out from my work") were rated using a scale ranging from 0 (= never) to 6 (= always).

*Work engagement (general level).* To measure employee work engagement, we used the 3-item subscales from Schaufeli, Bakker, and Salanova's (2006) UWES-9 questionnaire: vigor (e.g., "At my work, I feel bursting with energy"; Cronbach's  $\alpha = .92$ ), dedication (e.g., "I am enthusiastic about my job"; Cronbach's  $\alpha = .92$ ) and absorption (e.g., "I am immersed in my work"; Cronbach's  $\alpha = .89$ ). The answering scale ranged from 0 (= never) to 6 (= always).

#### 3.7.4 Weekly survey

*Exhaustion (weekly level).* The weekly version of MBI-GS exhaustion scale included 4 items (e.g., "This week, I have felt burnt out from my work"). Items were rated using a scale ranging from 1 (= totally disagree) to 6 (= totally agree). Cronbach's  $\alpha$  was .57 at week 1 and it reached satisfactory levels at week 2 (Cronbach's  $\alpha = .75$ ) and week 3 (Cronbach's  $\alpha = .84$ ).

*Work engagement (weekly level).* The weekly versions of vigor, dedication and absorption scales included 3 items each. A sample item is "This week I have been enthusiastic about my job". Items were rated using a scale ranging from 1 (= totally disagree) to 6 (= totally agree) and Cronbach's  $\alpha$  ranged weekly from .76 to .80 for vigor, from .73 to .81 for dedication and from .69 to .80 for absorption.

#### 3.7.5 Strategy of analyses

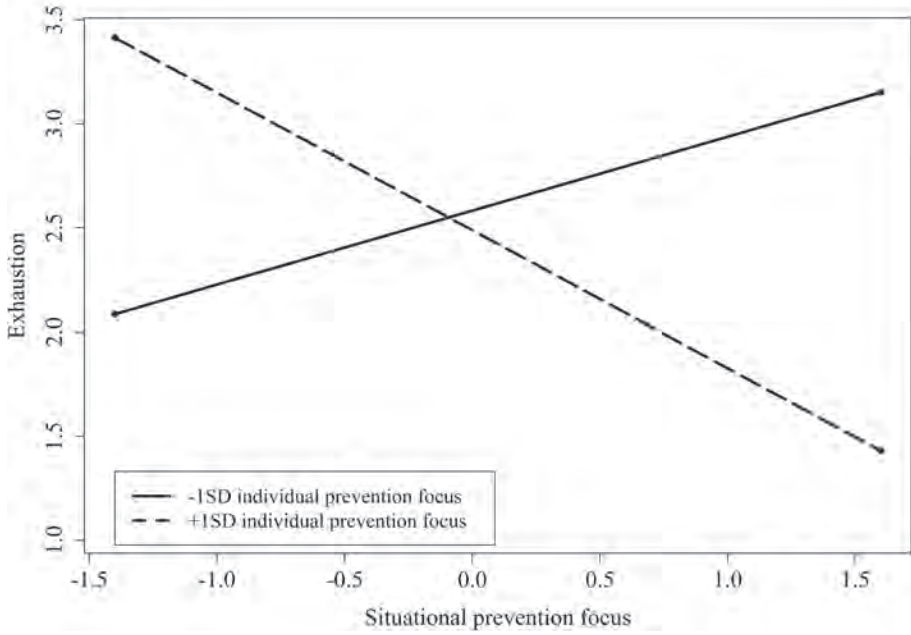
Our weekly repeated measurements were nested within individuals, therefore, the data can be viewed as multilevel (Hox, 2002). Our two-level hierarchical structure included 30 participants at the higher level and 90 occasions at the lower level. We conducted multilevel regression analyses using MLwiN (Rasbash, Steele, Browne, & Prosser, 2004), in order to test the effect of the interactions between individual and situational regulatory focus on exhaustion, vigor, dedication and absorption. One analysis was conducted for every dependent variable, resulting in four analyses. In every analysis we controlled for the effect of the general-level (i.e., higher-level) variable on the respective

weekly-level (i.e., lower-level) dependent variable (e.g., general-level exhaustion on weekly-level exhaustion). We, thus, tested the effect of regulatory fit on the specific week levels of the dependent variables, over and above the “baseline” level of the dependent variables, i.e. the behaviors that respondents commonly display. Predictors were centered to the grand mean (Hox, 2002). Prior to analyses, intra-class correlations showed that the variance in the week-level outcomes attributed to between-persons variations, thus, at the higher level, was 60% for exhaustion, 63% for vigor, 75% for dedication and 45% for absorption. This reveals that although dependent variables displayed significant amounts of variance at both levels of analyses, for most of the variables this variation was mostly at the higher level, which justifies the use of higher-level variables to predict lower-level outcomes.

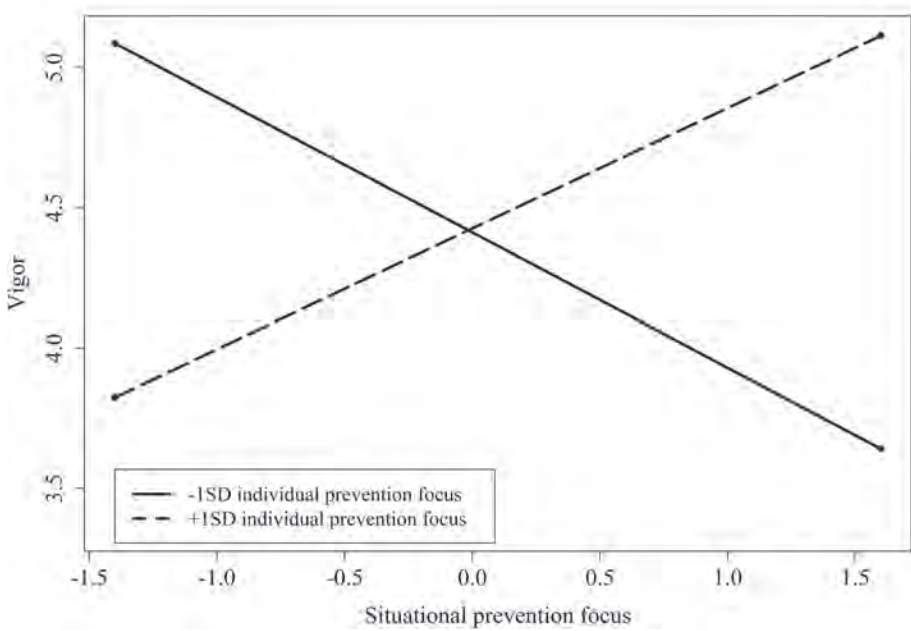
### 3.7.6 Results

Intercorrelations between the study variables revealed that individual promotion focus was unrelated to individual prevention focus ( $r = .09, p = .63$ ) while situational promotion had a high positive correlation with situational prevention ( $r = .69, p < .001$ ). Multilevel regression analyses showed that neither individual nor situational prevention focus had significant main effects on any of the dependent variables. Individual promotion focus had a positive effect on vigor (estimate = .194, SE = .091,  $t = 2.13, p < .05$ ) and situational promotion focus did not have a main effect on any dependent variable. As expected, the interaction term between individual and situational prevention focus was associated with vigor (estimate = .511, SE = .115,  $t = 4.44, p < .001$ ), dedication (estimate = .465, SE = .114,  $t = 4.08, p < .001$ ) and exhaustion (estimate = -.570, SE = .167,  $t = -3.41, p < .001$ ), but not absorption (estimate = .235, SE = .134,  $t = 1.75, p = .08$ ). Significant interactions are graphically displayed in Figures 3.3-3.5. Simple slope analyses with asymptotic  $z$ -tests conducted for the interactions revealed that the slopes for participants high in individual prevention focus (1 SD higher than the mean) were all significantly different from zero. Specifically, when highly prevention focused individuals perceived high levels (compared to low levels) of situational prevention focus, they reported lower exhaustion (estimate = -.66,  $z = -3.49, p < .001$ ), higher vigor (estimate = .43,  $z = 3.11, p < .01$ ) and higher dedication (estimate = .33,  $z = 2.39, p < .05$ ). On the contrary, as expected, the interaction term between individual and situational promotion focus did not predict any dependent variable. Therefore, hypothesis 3 was supported for three of four outcomes.

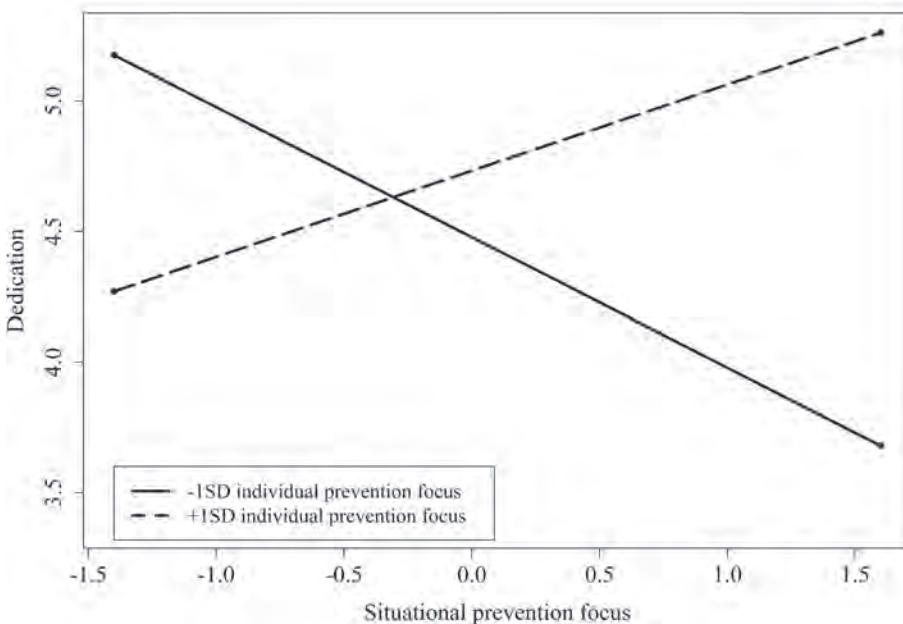




**Figure 3.3.** The effect of situational prevention focus on exhaustion moderated by individual prevention focus



**Figure 3.4.** The effect of situational prevention focus on vigor moderated by individual prevention focus



**Figure 3.5.** The effect of situational prevention focus on dedication moderated by individual prevention focus

### 3.8 General discussion

In this paper we examined the effect of regulatory fit on performance, adaptation, work engagement and exhaustion during change. In Study 1, prevention focused participants presented with a prevention focused changing task performed better compared to when change was promotion focused. This regulatory fit effect was not found for promotion focused participants. In Study 2, only the combination of individual and situational prevention (and not promotion) focus was associated with adaptation to changes. In Study 3, only the combination of individual and situational prevention (and not promotion) focus was associated positively with weekly work engagement and negatively with weekly exhaustion.

In general, it is assumed that every type of regulatory fit is beneficial (Aaker & Lee, 2006). From our results, however, it follows that when it comes to change, this might not be the case. Prevention focused individuals are conservative (Crowe & Higgins, 1997) and aversive to change (Lieberman et al., 1999). Under certain conditions, though, they may demonstrate creative (Baas, De Dreu, & Nijstad, 2011) or risky (Scholer, Stroessner,

& Higgins, 2008) behavior. Therefore, they rely more strongly on environmental input in order to display a range of behaviors not typically expected from them. Our findings imply that prevention and not promotion oriented employees rely more strongly on regulatory cues of their manager's communication during organizational change, which may lead to a more acute perception of regulatory fit and consequently more profound outcomes. This is in agreement with existing evidence indicating that during the assessment of a given situation prevention oriented individuals make more use of interpersonal and external rather than internal standards (Zhang, Higgins, & Chen, 2011) and rely more on external data rather than internal structures (Pham & Avnet, 2004). These findings support the idea that regulatory fit improves performance (Stam, Van Knippenberg, & Wisse, 2010) but with a distinction between promotion and prevention focus. In particular, regulatory fit improved performance only when prevention (and not promotion) focus was involved.

Employee adaptation to change was also illustrated in terms of exhaustion and work engagement. The negative link that was found between prevention regulatory fit and exhaustion is in the same line with research linking individual prevention focus with emotional exhaustion (Brenninkmeijer et al., 2010) or anxious attachment (Moss, 2009) in employees and distress in chronic patients (Schokker, Links, Luttik, & Hagedoorn, 2010). By experiencing misfit more profoundly, prevention focused individuals are likely to develop adverse health reactions which are typical for prevention failure (Klenk et al., 2011). Our finding that vigor and dedication are predicted by the interaction between individual and situational prevention focus introduces the importance of prevention focus in the study of work engagement. Although employee promotion focus interacts with leadership styles to predict employee engagement (Moss, 2009), in organizational change context it is important to focus on prevention focus too. Absorption was the only dimension of work engagement that was not associated with regulatory fit. Absorption is not the core dimension of engagement and it is a more complex and short-term peak experience (Schaufeli & Bakker, 2004). Indeed, absorption was the dimension of engagement with the lowest variance at the higher level. Therefore, it is perhaps explained by unstable or momentary factors that we did not measure.

Our findings resemble a pattern revealed by Keller, Lee and Sternthal (2004). In one of their experiments, prevention focused individuals presented with low-level concrete infor-

mation, thereby perceiving fit, were persuaded to change exercising method. On the other hand, promotion focused individuals were persuaded by both low-level concrete information (i.e., misfit condition) and by high-level abstract information (i.e., fit condition), indicating that regulatory fit effects may be asymmetrical across individual promotion and prevention. This becomes clearer if we look at the role of individual promotion focus within our findings. Although we did not form any hypotheses about the effects of individual promotion focus on any of the dependent variables, it is worth noting that these effects fit with the rest of the findings. Whereas in the experiment promotion and prevention focused students performed at the same levels, in the subsequent two studies among employees, promotion focused employees reported higher vigor and adaptation to changes than prevention focused employees. It seems, therefore, that while promotion focus is by nature associated with positive reactions to change, prevention focus is associated with positive reactions to change only when situational prevention framing is present. Taken together, our findings confirm propositions about the beneficial character of regulatory fit during organizational change (Taylor-Bianco & Schermerhorn, 2006; Van den Heuvel et al., 2010). Furthermore, they refine these propositions by illustrating the differential role of regulatory fit for prevention focused individuals, for whom more is at stake, and for promotion focused individuals, for whom fit will not play such a crucial role.

### 3.8.1 Contribution and limitations

The main contribution of our research is expanding empirical evidence regarding the positive effects of regulatory fit to include adaptation to change. More importantly, the use of a change context revealed that the predictions of regulatory fit theory are particularly important for prevention focused individuals. We made use of a multi-method approach, comprising one experiment among students and two survey studies among employees which lead to a similar pattern of results. Furthermore, instead of participants' choices or attitudes as dependent variables (e.g., Liberman et al., 1999; Tseng & Kang, 2008), we measured actual performance on a changing task. Within the third study, although the weekly design has not captured longitudinal effects, it added on the interpretation of our findings by employing multiple measurements and measuring individual "baseline" behaviors.

Notwithstanding the strengths of our research, limitations should be noted as well. The data that were gathered among employees were based on self-report and the

small sample sizes limited the power of analyses within the second and third study. Furthermore, the self-guide strength measure in Study 1 did not differentiate clearly between promotion and prevention focus, an issue that we addressed via median splits of the sample. The use of conventional regulatory focus measures in Study 2 and 3 resulted in non-significant correlations between individual promotion and prevention focus. As for the correlation between situational promotion and prevention focus, that was particularly high in Study 3 (which comprised a rather small sample) but average in Study 2 (which comprised a bigger sample and, thus, provides more reliable estimates).

### 3.8.2 Implications for research and practice

To combine the strengths of experimental and field research, future researchers could conduct field experiments among employees by manipulating, for example, the framing of new policies or innovations which are introduced in organizations. Furthermore, making a priori decisions about which type of regulatory focus (promotion or prevention) plays an important role in certain research areas (e.g., change implementation), is misleading, since different foci may hold different patterns. Finally, future research on regulatory fit during change should focus on objective performance in addition to participants' self-report.

Implications of regulatory fit for practice can be challenging. For instance, how can managers provide different regulatory framings of change messages when change communication generally follows one line? Hopefully, things become simpler if we assume that prevention focused employees are particularly attentive to change messages. Of course, employees can develop both types of regulatory focus. Therefore, we are not suggesting that change messages should always have a prevention framing. It is important, however, to keep in mind that for prevention focused employees more is at stake during change and the effects of a misfit could be particularly adverse. While a change message could be carved in such a way so as to follow a middle way including both promotion and prevention cues, prevention focused employees should be approached in an attentive way by managers. For example, regulatory fit should be targeted as a goal especially for prevention focused employees. This can be achieved by communication provided through coaching, individual development plans for prevention focused employees or other aspects of leader-member exchange.

Although regulatory fit is not the only factor contributing to successful change it can be the key to create and sustain healthy organizations during times of change. This is not only accomplished through the positive effects that regulatory fit holds for employees with prevention orientation but also through the elimination of adverse effects when misfit is present. These can be the ways to deal with resistance, low motivation and performance, to name only a few of the obstacles undermining change, and to create a prosperous environment facilitating change.



# Crafting a Job on a Daily Basis: Contextual Correlates and the Link to Work Engagement

# 4

**Based on:**

Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: contextual correlates and the link to work engagement. *Journal of Organizational Behavior*, 33, 1120-1141.



## 4.1 Introduction

Recently, a more active role of employees has been emphasized in addition to classic work design perspectives. Two notable reviews of work (re)design theories (Grant & Parker, 2009; Oldham & Hackman, 2010) acknowledge job crafting as a promising new approach to organizational behavior. The conceptual model that guides job crafting research proposes that employees proactively shape the task, as well as the relational and cognitive boundaries of their jobs (Wrzesniewski & Dutton, 2001). Job crafting is a proactive behavior requiring adaptation to challenges and constraints posed by a job (Berg, Wrzesniewski, & Dutton, 2010). In an ever-changing world of work, job crafting calls employees to anticipate and create changes in the way of work on the basis of increases in uncertainty and dynamism (Grant & Parker, 2009). This reflection activity can help them cope with ongoing changes. Therefore, job crafting is a strategic advantage during change (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010).

Apart from preliminary, mostly qualitative, research (Berg, Grant, & Johnson, 2010; Leana, Appelbaum, & Shevchuk, 2009; Lyons, 2008), there is scarce evidence on the dimensionality and correlates of job crafting. Whether job crafting is a continuous process or a single incident producing lasting changes and whether it has dysfunctional consequences still remain open questions (Oldham & Hackman, 2010). Building on such calls, our aim is to contribute to the job crafting literature via (i) conceptualizing job crafting as a day-level phenomenon targeted on specific job aspects, thereby capturing its dynamic nature and its value next to other proactive behaviors, and (ii) examining its day-level contextual and motivational correlates. To achieve this, we conducted a diary study in organizations experiencing micro-scale changes (e.g., task or technological change). We assumed that in these organizations, employees feel a greater need and potential to craft their (changing) jobs.

## 4.2 Conceptualizing job crafting as a daily behavior

Merging individual tendencies and momentary states is necessary to understand the dynamics of organizational behavior as they unfold daily (Ilies, Schwind, & Heller, 2007). In this paper, we follow previous diary studies (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009) by examining daily correlates of daily behaviors controlling for the

general, baseline level of these behaviors. We define day-level constructs as state-like variables fluctuating from day to day, thus showing intraindividual variation (Fritz & Sonnentag, 2009), whereas the general level of variables refers to relatively stable individual tendencies with interindividual variation (Xanthopoulou et al., 2009). Whereas a day-level behavior is demonstrated on a specific day, possibly triggered by events of that day, the general level refers to the way individuals generally behave, their “baseline” (Sonnentag, 2003).

There are at least two reasons why organizational behavior should be studied at the day level. First, diary studies eliminate recall biases (Bolger, Davis, & Rafaeli, 2003; Ohly, Sonnentag, Niessen, & Zapf, 2010) because retrospective summaries of individuals’ experiences are often biased by semantic memory (Beal & Weiss, 2003). Second, diary methods enable researchers to control for general individual tendencies and therefore assess the unique effect of day-level predictors to day-level outcomes (Daniels & Harris, 2005).

The strengths of diary methods particularly hold true for job crafting. Literature calls for dynamic methodologies to reveal intraindividual variation in proactive behaviors (Parker, Bindl, & Strauss, 2010). Evidence indicates that next to a trait component, proactive behaviors display intraindividual variation over time (Sonnentag, 2003). Workplace factors trigger proactive behaviors, implying that proactivity includes a situational component and is not entirely stable (Ohly & Fritz, 2010). Diary approaches, thus, shed light on what triggers the initiation of proactive behaviors (Fritz & Sonnentag, 2009). Finally, examining job crafting and its correlates daily is in line with the affective events theory (Weiss & Cropanzano, 1996) proposing that job features influence employee affect through specific work events. For example, day-level job characteristics affect mood, which translates into well-being (Teuchmann, Totterdell, & Parker, 1999) or proactive behaviors on a daily basis (Ohly & Fritz, 2010).

### 4.3 Job crafting: Conceptualization and dimensionality

Earlier views on job crafting suggest that crafting behavior is directed toward the job on the whole or general job aspects. Those aspects include tasks, relationships, and the cognitive view of one’s job (Wrzesniewski & Dutton, 2001). In this study, we intend to describe more precisely the demanding aspects of the tasks that employees craft on

a daily basis (i.e., task crafting) and the kind of help they arrange for themselves to manage their work (i.e., relational crafting). Therefore, we draw on the job demands–resources (JD–R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), and we use a conceptualization that focuses on the specific job characteristics (i.e., job demands and resources) that can be crafted (Tims, Bakker, & Derks, 2012).

Job characteristics are distinguished in demands and resources (Demerouti et al., 2001). Job demands refer to “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs.” Job resources refer to “physical, psychological, social or organizational aspects of the job that are either/or: (a) functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth, learning and development” (Bakker & Demerouti, 2007, p. 312). In two distinct processes proposed by the JD–R model, demands relate primarily to impaired health (i.e., health impairment process), whereas resources primarily relate to engagement (i.e., motivational process).

The JD–R model incorporates demands and resources of particular interest in organizations without focusing on predefined job features. We propose that by allowing for a wide list of demands and resources that can represent targets of crafting, the JD–R model offers an advantage in the study of job crafting behaviors. We are, thereby, provided with an opportunity to describe Wrzesniewski and Dutton’s (2001) “task crafting” and “relational crafting” on the basis of job demands and job resources. In doing so, we add to existing definitions of proactive behaviors, viewing active employees as “attacking problems” or “searching for solutions” (Frese, Fay, Hillburger, Leng, & Tag, 1997, p. 161) and to generic definitions of job crafting as modifying job tasks or relationships on the whole (Wrzesniewski & Dutton, 2001). Therefore, our conceptualization describes what exactly employees do when they craft their job on a particular day.

In line with Tims et al. (2012), we examined three distinct job crafting behaviors. For the aims of this study, we defined job crafting as a proactive employee behavior consisting of seeking resources, seeking challenges, and reducing demands. Reducing

resources is not distinguished, as it does not seem a purposeful behavior (Hobfoll, 2001). In the succeeding texts, we describe the job crafting dimensions based on theoretical background to illustrate how job resources, challenges, and demands are relevant dimensions of job crafting.

#### 4.3.1 Seeking resources

Help-seeking behaviors at work, such as feedback or information seeking, can be proactive behaviors enacted to gain specific resources (Lee, 1997). The conservation of resources theory (Hobfoll, 2001) holds that human motivation is directed toward the accumulation of resources that are important for the protection of other valued resources. Consequently, accumulation of resources can take the form of proactive coping with positive outcomes for employee motivation and well-being (Salanova & Schaufeli, 2008). In addition to making one's job more motivating, seeking resources can be a way to mobilize more job resources so as to cope with job demands (Tims & Bakker, 2010). Seeking resources may include behaviors such as asking advice from colleagues or supervisors, asking feedback on one's job performance, or seeking learning opportunities.

#### 4.3.2 Seeking challenges

Classic stress theories (Lazarus & Folkman, 1984; Selye, 1987) propose that positive interpretation of stressors results in the perception of challenge. Indeed, job demands are often linked positively to work engagement (Van den Broeck, Vansteenkiste, de Witte, & Lens, 2008). In a related vein, Podsakoff, LePine, and Le Pine (2007) distinguish between "hindrance" and "challenge" stressors. Whereas hindrance stressors have negative relationships with job satisfaction and commitment and positive relationships with turnover, challenge stressors hold the opposite pattern and have positive implications. Similarly, workers in active jobs (characterized by high job demands and high control) seek challenging situations that promote mastery (Karasek & Theorell, 1990), revealing a principally motivating role for challenges seeking behaviors. Such behaviors may include looking for new tasks at work once one finishes one's work or taking on more responsibilities. Obviously, in some work environments, increasing challenges is not an option to consider. When a job is far too demanding, demands are not viewed as challenges anymore, and reducing them might be a necessary health-protecting coping mechanism.

### 4.3.3 Reducing demands

Although job crafting has a widely accepted positive role, a possibly “negative” side of job crafting has also been suggested (Oldham & Hackman, 2010; Wrzesniewski & Dutton, 2001). Reducing demands would be the dimension to reveal a dysfunctional side of job crafting, if there is such a side. Reducing job demands has not been studied extensively as such. “Task avoidance” can be a withdrawal-oriented coping mechanism (Parker & Endler, 1996). Slow or sloppy work and poor attendance are described as counterproductive behavior (Gruys, 1999). However, Chu and Choi (2005) propose that procrastination can be an “active” behavior with positive outcomes for the procrastinator when it takes the form of deliberate coping strategy. Reducing demands may include behaviors targeted toward minimizing the emotionally, mentally, or physically demanding job aspects or reducing one’s workload and time pressure. In this study, we treat reducing demands as conceptually distinct from seeking challenges, because these two behaviors play different roles. For example, whereas seeking challenges is motivational in nature, reducing demands could be either a coping strategy or an indication of low motivation. Although the coping and the motivational role are distinct, they should not be viewed as mutually exclusive.

Lyons (2008) defined job crafting as changes or modifications in one’s work activities and reported a mean of 1.49 crafting episodes performed by employees during the past year. However, job crafting has been described as an “everyday” (Wrzesniewski & Dutton, 2001) or “continuous” (Berg, Wrzesniewski, & Dutton, 2010) activity. By conceptualizing job crafting in a detailed way as targeting specific job demands and resources, it becomes a concrete behavior that might be quantified and manifested on a day-to-day level. We think that job characteristics are often crafted by an employee, whereas the meaning or the overall scope of the job remains the same. For instance, individuals ask advice from colleagues (i.e., seeking resources) more often than changing relationships with people at work (i.e., relational crafting; Wrzesniewski & Dutton, 2001). Asking for more responsibilities (i.e., seeking challenges) is also more frequent than changing one’s task (i.e., task crafting; Wrzesniewski & Dutton, 2001). Similarly, employees ask feedback on their performance (i.e., seeking resources) more often than changing their work activities (Lyons, 2008). In line with what has been shown for proactive behavior (Fritz & Sonnentag, 2009), personal initiative (Sonnentag, 2003), and coping (Daniels & Harris, 2005), we want to demonstrate in this study the extent

to which job crafting can be conceived at the day level in addition to the general level. Hence, we formulate the following hypothesis:

**Hypothesis 1:** Both at the general and day levels, job crafting consists of three distinct behaviors, namely seeking resources, seeking challenges, and reducing demands.

#### 4.4 Job crafting and active jobs

Proactive behaviors are linked positively to job resources and positively or negatively to job stressors (Frese, Garst, & Fay, 2007; Fritz & Sonnentag, 2009; Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Similarly, job demands and resources may trigger job crafting. Proposed predictors of crafting include job control (Lyons, 2008), task interdependence (Leana et al., 2009), job demands (Wrzesniewski & Dutton, 2001), task complexity (Ghitulescu, 2006), and job challenges (Berg, Wrzesniewski, & Dutton, 2010). The implication of both job demands and job resources being examined as predictors of job crafting calls “active jobs” (Karasek & Theorell, 1990) into play.

Active jobs are jobs that are not only highly demanding for employees but also provide high job control. They provide opportunities for learning, which facilitate mastery feelings that help employees cope with demands, further enhancing their capacity to learn and develop (Karasek & Theorell, 1990). In this study, we view active jobs as jobs with high work pressure and autonomy (Taris, Kompier, De Lange, Schaufeli, & Schreurs, 2003). Job autonomy refers to employee control over task execution, whereas work pressure refers to quantitative demanding aspects of a job (Bakker, Demerouti, & Verbeke, 2004). Karasek (1979) proposed that active jobs lead to the development of new behavior patterns both on and off the job. Contrary to high-strain jobs, in active jobs, the high arousal that is imposed by job demands is appropriately channelled into active problem solving because of the job control and the lack of constraints imposed by low control. That may lead to “healthful regeneration” and self-leadership strategies, such as self-job redesign or self-management (Lovelace, Manz, & Alves, 2007, p. 379), which resemble job crafting behaviors. Active jobs are linked to challenge (Karasek & Theorell, 1990), increased development opportunities (Kauffeld, Jonas, & Frey, 2004) work engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007),

and individual innovation (Martin, Salanova, & Peiro, 2007). We expect employees in active jobs to engage in seeking challenges and resources but not in reducing demands. Workers in active jobs, being proactive and engaged, will not decrease their workload because the “challenge of high job demands” is an integral part of active jobs (Karasek, 1979, p. 301). It will be just the opposite; employees will enhance the parts of the job that make it active, namely challenges and resources, when they are free to. Therefore, we will test the following hypotheses:

**Hypothesis 2:** The highest levels of seeking resources will be performed on days when high work pressure is combined with high job autonomy.

**Hypothesis 3:** The highest levels of seeking challenges will be performed on days when high work pressure is combined with high job autonomy.

**Hypothesis 4:** The lowest levels of reducing demands will be performed on days when high work pressure is combined with high job autonomy.

## 4.5 Job crafting and work engagement

Several job characteristic frameworks (Demerouti et al., 2001; Hackman & Oldham, 1976) argue that motivation or satisfaction is tied to objective job features. Therefore, by changing aspects of a job so that they fit their own needs, employees enhance their motivation. By being proactive, employees find motivating challenges and engage in effective problem solving which enhances their engagement (Hakanen et al., 2008). There is a paucity of empirical evidence, however, connecting job crafting with engagement. Ghitulescu (2006) found a positive link between job crafting and commitment. Wrzesniewski and Dutton (2001) proposed that job crafters are satisfied workers.

In this study, we investigate whether job crafting has an impact on one indicator of employee motivation, namely work engagement. Work engagement is a positive, fulfilling, and work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli, Bakker, & Salanova, 2006) and is associated with proactive behaviors (Macey & Schneider, 2008). Literature has linked job resources and challenges, which we view as targets of crafting, with work engagement. Resources



lead to engagement by playing an intrinsic motivational role, fulfilling human needs, or an extrinsic motivational role, through successful task completion and satisfaction (Bakker & Demerouti, 2007). At the same time, challenge stressors enhance positive employee motivational states via positive emotions and attitudes (Podsakoff et al., 2007). Similarly, in a longitudinal study among teachers, Prieto, Soria, Martinez, and Schaufeli (2008) found a positive link between workload and work engagement. In the light of this evidence, we expect seeking resources and challenges to be associated—through the accumulation of extra resources and challenges—to engagement.

Reducing demands, though, should play a different role in terms of engagement. Although reducing one's workload may protect employee well-being in stressful situations, we would expect this form of crafting to relate negatively to engagement. This is because by reducing their workload, employees will also reduce the triggers or necessity for action, in other words, the optimal level of job challenge (Csikszentmihalyi, 1990) in their daily activities. Reducing workload is suggested to be counterproductive (Gruys, 1999), whereas procrastination is negatively related to performance (Ferrari, 2001), conscientiousness, and motivation (Steel, 2007). Hence, we formulate the following hypothesis:

**Hypothesis 5:** Day-level work engagement is positively associated with day-level seeking resources and day-level seeking challenges and negatively associated with day-level reducing demands.

## 4.6 Linking job crafting with organizational change

Through proactive behaviors, new work roles may emerge in uncertain contexts (Griffin, Neal, & Parker, 2007). Organizational changes offer an exceptional context to study job crafting, since tasks and roles are “in flux”. Job crafters alter their work meaning (Wrzesniewski & Dutton, 2001) which is an effective way to deal with change at work (Van den Heuvel, Demerouti, Schreurs, Bakker, & Schaufeli, 2009). Therefore, job crafting can be a useful strategy during organizational change and holds a prominent place in addition to other forms of proactive behavior in today's world of change and uncertainty.

A success factor in embracing change is “re-invention”, in other words, modifying the change to suit one's needs (Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004),



echoing job crafting behaviors. Employees cope with change via seeking resources and intervening on their tasks by working more or by working less (Robinson & Griffiths, 2005; Stensaker, Meyer, Falkenberg, & Haueng, 2002) and are more ready to accept change when they use active problem-solving (Cunningham, Woodward, Shannon, Macintosh, Lendrum, Rosenbloom, & Brown, 2002). Therefore, certain organizational changes may call for employee job crafting. Furthermore, work engagement is proposed as an indicator of successful adaptation to change (Van den Heuvel et al., 2010). When change is viewed as a positive challenge (Avey, Wernsing, & Luthans, 2008) and is dealt with successfully, it is likely to have a positive impact on work engagement.

In the present study, we explore links between types of organizational change, job crafting, and work engagement. As there is no strong evidence to substantiate hypotheses about these links, we examine the effect of the specific forms of organizational change within the hypothesized relationships. Following organizational change research looking mostly at micro-level types of change (Brotheridge, 2003; Morgan & Zeffane, 2003; Verhaeghe, Vlerick, De Backer, Van Maele, & Gemmel, 2008), we focus on micro-level changes at the work instead of the structural level because we do not expect excessive or major change to facilitate job crafting. Structural changes might not be perceived by an individual if they do not affect an employee's direct work environment. Changes at the micro-level included new tasks, new ways of completing existing tasks, technological changes, new products or services, new clients, relocations and flexwork.

## **4.7 Method**

### **4.7.1 Procedure and participants**

Data were collected using a questionnaire and a diary booklet. Participants were employed from several organizations in the Netherlands, undergoing some type of change at their work. Research assistants recruited participants by contacting organizations in the region known for undergoing some kind of change. Participation was voluntary and no incentives were used for the respondents. Participants were informed that upon agreement they would receive a diary booklet that they were invited to fill out for 5 consecutive working days at the end of each day. Before starting with the diaries, respondents first had to fill out a general questionnaire in which they provided demographic data and information on the general level of the measured variables. A

total of 110 questionnaires and diaries were sent out by post and 95 were sent back, reaching a response rate of 86.4%.

Participants were 95 employees, 55 females and 40 males. Their mean age was 40.1 years ( $SD = 12.4$ ). Of them, 38.3% were working in the health or education sector, 25.5% in finance or business administration, 13.7% in sales, 9.5% in industrial or construction sector, 8.5% in government and 4.5% indicated another sector. For 26% of the respondents the five working days were consecutive week days, while for the rest of the sample the working days were interrupted for different reasons such as the weekend or part-time contract. The mean working hours per week were 37.3 ( $SD = 9.5$ ). Compared to the Dutch working population (CBS, 2009), women, full-time employees, health and education sector were slightly overrepresented in our sample, but there was a similar distribution of employees across age groups and the remaining occupational groups.

All participants indicated that they faced at least one change at their work. Of the respondents, 44% were faced with the changes more than half a year ago, and 19% between three months and half a year ago. Respondents indicated which type(s) of changes they were facing, using a checklist which included: new tasks (68%), new ways of completing existing tasks (48%), technological changes (42%), new products or services (31%), new clients (32%), relocations (26%), and flexwork (6%).

#### 4.7.2 General questionnaire

*General level of job crafting.* To measure the general level of job crafting we used a modified version of Tims et al.'s (2012) job crafting scale. We retained the three dimensions, originally labeled as increasing job resources, increasing job demands and decreasing job demands (see Table 4.3). Items were selected on the basis of preliminary factor loadings and adjusted or complemented with new items so that our scale could be used both for the general and the day-level. Respondents indicated how often they engaged in every behavior during the past three months using a scale ranging from 1 = never to 5 = often. *Seeking resources* included six items (Cronbach's  $\alpha = .70$ ), *seeking challenges* included three items (Cronbach's  $\alpha = .76$ ) and *reducing demands* included four items (Cronbach's  $\alpha = .69$ ).

*General level of work engagement.* We measured general level of work engagement with the 9-item UWES scale (Schaufeli, Bakker, & Salanova, 2006) including three subscales, namely, vigor (e.g., “At my work, I feel bursting with energy”), dedication (e.g., “I am enthusiastic about my job”) and absorption (e.g., “I am immersed in my work”), and an answering scale ranging from 0 = never to 6 = always. For the analyses, we used a composite score of all subscales (Cronbach’s  $\alpha = .92$ ), since the one-factor solution has acceptable goodness-of-fit (Schaufeli et al., 2006).

### 4.7.3 Daily diary

The diary booklet consisted of five identical questionnaires, one for each day. Similarly to previous diary studies (Fritz, & Sonnentag, 2009), respondents indicated how representative each statement was for the past day<sup>2</sup> using a scale, ranging from 1 = does not apply to me, to 5 = totally applies to me.

*Day-level job autonomy.* We used three items from Bakker et al.’s (2004) Dutch version of Karasek’s (1985) Job Content questionnaire to measure day-level job autonomy. An example item is “Today, I could decide myself how I perform my job”. Cronbach’s  $\alpha$  was calculated separately for each day and ranged from .56 to .71 ( $M = .66$ ).

*Day-level work pressure.* Day-level work pressure was measured with the 3-item Dutch version (Furda, 1995) of Karasek’s (1985) Job Content questionnaire. A sample item is “Today, I had too much work to do”. Cronbach’s  $\alpha$  ranged from .85 to .90 ( $M = .89$ ).

*Day-level job crafting.* The day-level job crafting questionnaire consisted of three subscales: *Day-level seeking recourses* included four items and Cronbach’s  $\alpha$  ranged from .72 to .79 ( $M = .75$ ). *Day-level seeking challenges* included three items and Cronbach’s  $\alpha$  ranged from .87 to .92 ( $M = .90$ ). *Day-level reducing demands* was measured with three items and Cronbach’s  $\alpha$  ranged from .79 to .88 ( $M = .85$ ). Items are presented in Table 4.3.

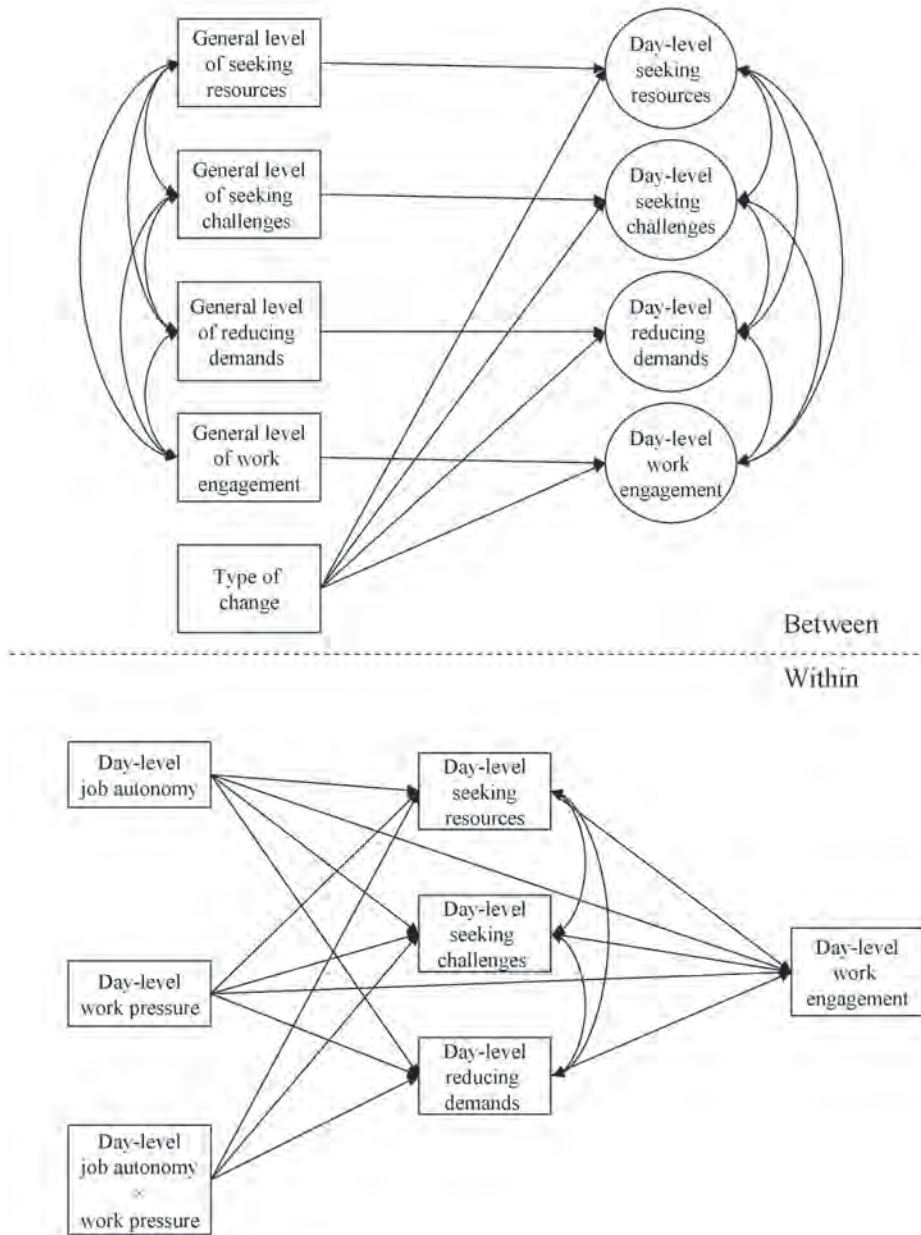
*Day-level work engagement.* The day-level version of work engagement included all nine items of the UWES-9 (e.g., “Today, I was enthusiastic about my job”). Cronbach’s  $\alpha$  ranged from .86 to .91 ( $M = .88$ ).

2 All daily surveys included the following instruction: “Note! These questions are not about your overall situation but about the past day. Fill in the information and statements at the end of the working day, preferably at your workplace”. Moreover, all items of the diaries started with the word “Today ...”.

#### 4.7.4 Analytical approach

Our data have a multilevel structure, with repeated measurements nested within persons (Hox, 2002). Our two-level hierarchical structure included 475 occasions at the lower level and 95 participants at the higher level. We analyzed our data using Mplus (Muthén & Muthén, 2010). Next to confirmatory factor analysis (CFA) that we conducted to the general level of job crafting, we conducted multilevel confirmatory factor analysis (MCFA) to the day-level job crafting items, in order to test Hypothesis 1. MCFA examines simultaneously both the within and the between covariance matrix. This technique deals with problems of other approaches, such as analyzing the total covariance matrix derived from the entire data set or averaging the item responses to the group level and then performing factor analysis on the sample between-group covariance matrix (Muthén, 1994). Multilevel Structural Equation Modeling (MSEM) was conducted to test Hypotheses 2-5 (Figure 4.1). In multilevel analysis the intraclass correlation decomposes the variance in two components: variance at the lower and the higher level. Prior to MCFA, intraclass correlation showed that variance in the day-level job crafting items explained by the higher level, thus, attributed to between-persons variations ranged from 35% to 56%. Prior to the MSEM, intraclass correlation showed that 59% of the variance in seeking resources, 60% in seeking challenges, 53% in reducing demands and 62% in work engagement are attributed to between-persons variations. Consequently, significant amounts of variance are left to be explained by within-person variations, justifying the multilevel approach.

Five types of organizational change that occurred for a substantial part of respondents (> 30%), namely new tasks, new ways of completing existing tasks, technological changes, new products/services and new clients along with the general level of job crafting and the general level of work engagement were treated as between-level variables. As within-level variables we specified day, day-level autonomy, day-level work pressure and their interaction term. Four variables, namely, the three day-level job crafting variables and day-level work engagement were not specified neither as within- nor as between-level variables because they were modeled at both levels. Mplus considers them at the within-level (Muthén & Muthén, 2010).



**Figure 4.1.** Hypothesized model

*Note.* Type of change represents the following five dichotomous variables: news tasks, news ways of completing existing tasks, technological changes, new products/services and new clients

At the between-level of the MSEM model, control variables included types of change, general level of work engagement and general level of the three types of job crafting. At the within-level, the only control variable was day. Controlling for change permitted us to control for the effect of different changes in the organizations and also to gain insight in the relationship between change and job crafting. Controlling for the effect of general-level variables to the respective day-level variables that were treated as outcomes enabled us to examine relationships between day-level fluctuations after taking into account individual baselines. Controlling for day permitted us to control for the “good day effect” (Sheldon, Ryan, & Reis, 1996).

Paths between day-level variables (from day, day-level autonomy, day-level work pressure and their interaction term to day-level job crafting and from day-level job crafting to day-level work engagement) were modeled at the within-part of the model (see bottom part of Figure 4.1) because this level refers to fluctuations over time (variations within persons). Paths from between-level variables (types of change, general level of job crafting and work engagement) to day-level job crafting and day-level work engagement were modeled at the between-part of the model (see upper part of Figure 4.1) because this level refers to individual baselines (variation between persons). Similar to SEM practices (Cortina, Chen, & Dunlap, 2001), day-level job autonomy and day-level work pressure were not allowed to correlate with their interaction term. Next to the hypothesized paths, we included the paths from day-level autonomy and day-level work pressure to day-level work engagement at both levels of analysis. These paths were included because they are meaningful and largely considered by past research. While job resources are commonly linked to work engagement (Schaufeli & Bakker, 2004), job demands have been found to be connected to work engagement in both negative (Bakker et al., 2007) and positive ways (Van den Broeck, et al., 2008).

Day-level explanatory variables (autonomy, work pressure and their interaction term) were centered to the person mean and general-level explanatory variables (general level of job crafting and work engagement) were centered to the sample mean (Ohly, Sonnentag, Niessen, & Zapf, 2010). Dichotomous variables (types of change) and variables that were treated both as explanatory variables and outcomes were not centered. Therefore, our results can be interpreted as follows: When a day-level variable  $x$  is related to a day-level variable  $y$ , it means that on days when respondents report the

**Table 4.1.** Means, standard deviations and correlations among the study variables (N = 475 occasions, N = 95 employees)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Tasks	.69	.46	-													
2. Methods	.48	.50	.09*	-												
3. Technology	.42	.49	.10*	.20***	-											
4. Products	.31	.46	.19***	.00	-.01	-										
5. Clients	.32	.47	.16***	-.11*	.15***	.34***	-									
<b>General-level</b>																
6. Seeking resources	3.70	.47	.27***	-.01	.07	.08	.19***	-								
7. Seeking challenges	3.09	.82	.27***	-.06	.06	.01	.03	.41***	-							
8. Reducing demands	2.39	.63	.08	.04	.14***	-.04	-.04	-.10*	.05	-						
9. Work engagement	3.82	.93	.20***	-.05	-.04	-.14**	-.08	.31***	.40***	.03	-					
<b>Day-level</b>																
10. Autonomy	3.73	.56	.26***	-.01	-.03	.00	.10*	.25***	.18***	.15**	.23***	-				
11. Work pressure	3.21	.73	.15***	.23***	-.12*	-.05	-.09*	.00	.01	-.10*	.26***	.12**	-			
12. Seeking resources	2.73	.68	.13**	-.01	.01	-.05	.21***	.56***	.35***	-.02	.17***	.15***	.19***	-		
13. Seeking challenges	2.08	.68	.25***	-.10*	-.07	-.08	.14**	.33***	.53***	.13**	.16***	.13**	-.08	.60***	-	
14. Reducing demands	2.02	.57	.06	.10*	.06	-.04	.06	.07	.13*	.65***	-.09	.16**	-.11*	.22***	.27***	-
15. Work engagement	3.36	.52	.23***	.04	-.12**	-.16***	.01	.30***	.28***	.00	.80***	.34***	.41***	.29***	.18***	-.02

*Note.* Variables 1-5 refer to the type of organizational change: tasks = new tasks, methods = news ways of completing existing tasks, technology = technological changes, products = new products or services, clients = new clients; For all day-level variables we have used aggregate scores of the 5 days, therefore for all day-level variables participants have been assigned a mean score of their 5 measurements; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$



x variable at higher levels than they did on average (within-level variation in variable x), they report high levels of variables y. When a general-level variable x is related to a day-level variable y, it means that when respondents report levels of the variable x higher than the mean score of the sample (between-level variation in variable x), they report higher levels of variable y (Ohly et al., 2010). For all the analyses, the Maximum Likelihood (ML) Estimator was used.

## 4.8 Results

### 4.8.1 Descriptive statistics

Table 4.1 shows the means, standard deviations and correlations between the study variables. Day-level variables are averaged across five days. Significant correlations were found between day-level job crafting, job autonomy, work pressure, and work engagement.

### 4.8.2 The job crafting scale at the general and day-level

First, confirmatory factor analysis was conducted to the general-level job crafting items. The three-factor solution displayed moderate to adequate fit to the data,  $\chi^2 = 85.15$ ,  $df = 62$ ,  $p < .05$ ,  $\chi^2/df = 1.37$ ,  $BIC = 2986.07$ ,  $CFI = .91$ ,  $TLI = .89$ ,  $RMSEA = .06$ ,  $SRMR = .08$  (see Table 4.2). One intercorrelation between the factors was significant: the correlation between general seeking resources and general seeking challenges ( $r = .49$ ,  $p < .001$ ). The three-factor solution was compared to two alternative models by means of chi-square and BIC difference. When comparing two non-nested models, a difference in BIC larger than 10 is a very strong indicator that the model fits better to the data (Raftery, 1995). The three-factor model displayed substantially better fit indices and lower BIC value compared to a two-factor solution (collapsing seeking resources with seeking challenges into one factor),  $\Delta\chi^2(2) = 40.24$ ,  $p < .001$ ,  $\Delta BIC = 31.13$  and compared to a one-factor solution,  $\Delta\chi^2(3) = 114.46$ ,  $p < .001$ ,  $\Delta BIC$  difference = 100.80 (see Table 4.2). Factor loadings ranged from .39 to .89 (see Table 4.3).

Second, multilevel confirmatory factor analysis (MCFA) was conducted to the day-level job crafting items. The three-factor day-level solution<sup>3</sup> displayed excellent fit to the data (see Table 4.2),  $\chi^2 = 106.56$ ,  $df = 65$ ,  $p < .001$ ,  $\chi^2/df = 1.64$ ,  $BIC = 10107.79$ ,  $CFI = .98$ ,  $TLI = .97$ ,  $RMSEA = .04$ ,  $SRMR = .05$  (within-level) and .06 (between-level).

3 Initially, the 3-factor solution resulted in a non-positive definite residual covariance matrix due to negative residual variance (= -.001) of a seeking challenges item ("I have asked for more odd jobs", see Table 4.3) at the between-level. When a residual variance of an item in a CFA is very low and non-significant, it can be fixed to zero without any consequences for the model estimation (Muthén & Asparouhov, 2011). After the residual variance of this item was constrained to be zero the estimation run successfully.



**Table 4.2.** Fit indices and model comparisons for the three- two- and one-factor CFA solutions of the general and the day-level job crafting scale

Model	$\chi^2$	df	BIC	Comparison	$\Delta\chi^2$	$\Delta df$	$\Delta BIC$	$\chi^2/df$	RMSEA	SRMR	TLI	CFI
<b>General level job crafting</b>												
One-factor solution	199.61***	65	3086.87					3.07	.15	.13	.39	.49
Two-factor solution	125.39***	64	3017.20					1.96	.10	.09	.72	.77
Three-factor solution	85.15*	62	2986.07	3F vs. 1F	114.46***	3	100.80	1.37	.06	.08	.89	.91
				3F vs. 2F	40.24***	2	31.13					
<b>Day-level job crafting</b>												
One-factor solution	865.03***	72	10823.11					12.01	.15	.15/.20	.42	.54
Two-factor solution	306.85***	70	10277.26					4.38	.08	.10/.10	.82	.86
Three-factor solution	106.56***	65	10107.79	3F vs. 1F	758.47***	7	715.32	1.64	.04	.05/.06	.97	.98
				3F vs. 2F	200.29***	5	169.47					

Note. 3F = three-factor, 2F = two-factor, 1F = one-factor; seeking resources and seeking challenges are collapsed in one factor in both of the two-factor solutions (general and day-level); the first values of SRMR for the day-level solutions represent the within-level and the second values represent the between-level; \*\*\*p < .001; \*\*p < .01; \*p < .05

At the between-level of analysis, all factor intercorrelations were significant ( $.27 < r < .68$ ,  $p \leq .05$ ), and at the within-level of analysis, seeking resources correlated with seeking challenges ( $r = .22$ ,  $p < .001$ ) and reducing demands correlated with seeking challenges ( $r = .16$ ,  $p < .01$ ). The three-factor model displayed substantially better fit indices and lower BIC value compared to a two-factor solution (collapsing seeking resources and seeking challenges in one factor),  $\Delta\chi^2(5) = 200.29$ ,  $p < .001$ ,  $\Delta\text{BIC} = 169.47$  (see Table 4.2) and compared to a one-factor solution  $\Delta\chi^2(7) = 758.47$ ,  $p < .001$ ,  $\Delta\text{BIC} = 715.32$  (see Table 4.2). Factor loadings for the three-factor solution ranged from .38 to .92 at the within-level and from .67 to 1.00 at the between-level (see Table 4.3). Hence, Hypothesis 1, regarding the three dimensional structure of job crafting at the general and the daily level was supported.

### 4.8.3 Testing the hypothesized model

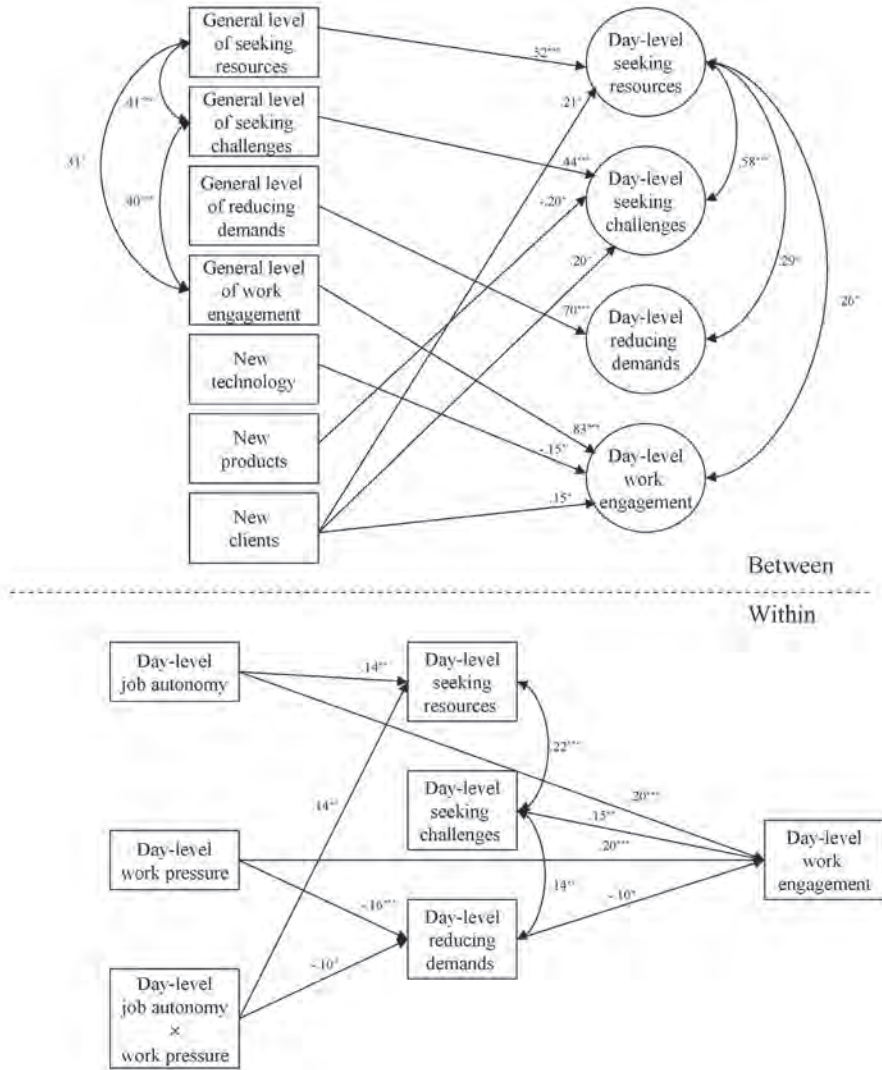
The hypothesized MSEM model displayed satisfactory fit to the data (Figure 4.2),  $\chi^2 = 43.18$ ,  $df = 33$ ,  $p = .11$ ,  $\chi^2/df = 1.31$ ,  $\text{CFI} = .98$ ,  $\text{TLI} = .93$ ,  $\text{RMSEA} = .03$ ,  $\text{SRMR} = .00$  (within-level) and  $.06$  (between-level).

In relation to the active job hypotheses, the interaction term between day-level autonomy and day-level work pressure was significantly related to day-level seeking resources. The highest levels of seeking resources were performed on days when high work pressure was combined with high autonomy (Figure 4.3). Furthermore, the line representing high job autonomy had a significant slope ( $z = 3.02$ ,  $p < .01$ ) whereas the line representing low job autonomy did not ( $z = -.08$ ,  $p = .38$ ). Therefore, hypothesis 2 was supported. The interaction term between day-level autonomy and day-level work pressure was not related to day-level seeking challenges, thus failing to support hypothesis 3. Finally, the interaction term was significantly related to day-level reducing demands, suggesting that the lowest levels of reducing demands were performed on days when work pressure was combined with high job autonomy (Figure 4.4). Furthermore, the line representing high job autonomy had a significant slope ( $z = -3.77$ ,  $p < .001$ ), whereas the line representing low job autonomy did not ( $z = -.96$ ,  $p = .34$ ). Therefore, hypothesis 4 was supported.

**Table 4.3.** Factor loadings for the three-factor solutions of general and day-level versions of job crafting

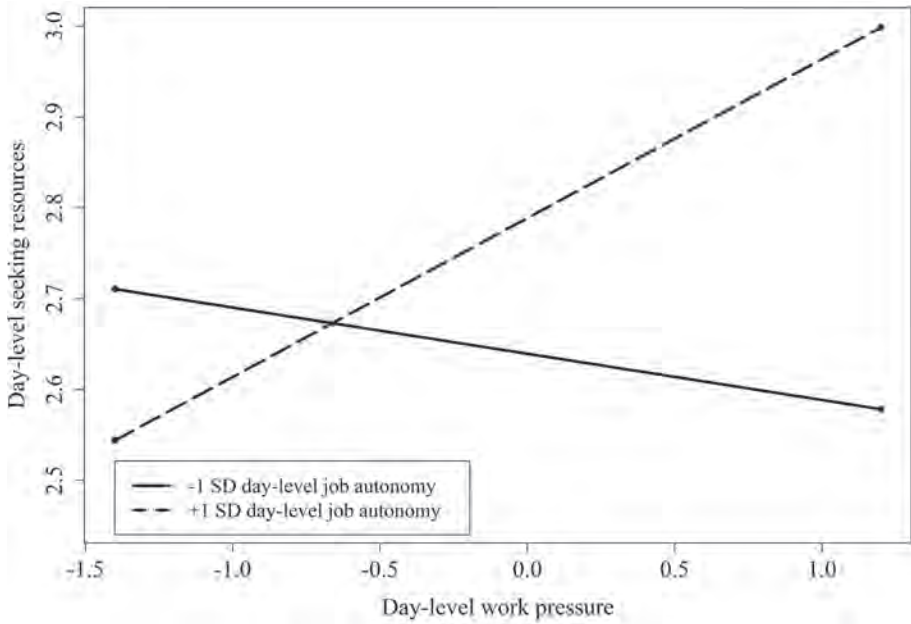
<b>General level of seeking resources</b>		<b>Day-level seeking resources</b>	
I ask others for feedback on my job performance	.58	I have asked others for feedback on my job performance	.44/ .80
I ask colleagues for advice	.59	I have asked colleagues for advice	.81/ .89
I ask my supervisor for advice	.71	I have asked my supervisor for advice	.48/ .80
I try to learn new things at work	.56	I have tried to learn new things at work	.38/ .67
I contacted other people from work (e.g., colleagues, supervisors) to get the necessary information for completing my tasks	.39		
When I have difficulties or problems at my work, I discuss them with people from my work environment	.39		
<b>General level of seeking challenges</b>		<b>Day-level seeking challenges</b>	
I ask for more tasks if I finish my work	.65	I have asked for more tasks if I finish my work	.56/ .92
I ask for more responsibilities	.81	I have asked for more responsibilities	.92/ 1.00
I ask for more odd jobs	.76	I have asked for more odd jobs	.77/ 1.00
<b>General level of reducing demands</b>		<b>Day-level reducing demands</b>	
I try to ensure that my work is emotionally less intense	.89	I have tried to ensure that my work is emotionally less intense	.89/ .97
I make sure that my work is mentally less intense	.65	I have made sure that my work is mentally less intense	.82/ .98
I try to ensure that my work is physically less intense	.48	I have tried to ensure that my work is physically less intense	.44/ .83
I try to simplify the complexity of my tasks at work	.45		

*Note.* All factor loadings are significant at the  $p < .001$  level; the first factor loading for the day-level job crafting scales represents the within-level and the second represents the between-level

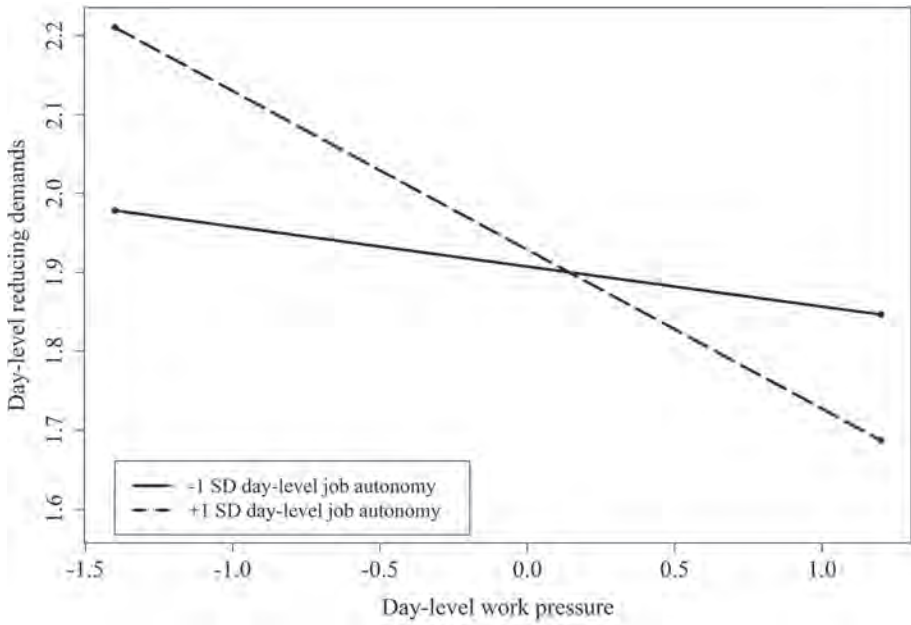


**Figure 4.2.** Results for multilevel structural equation modelling

*Note.* Control variable *day* at the within-level is not shown for clarity purposes; non-significant paths are not shown;  $\chi^2 = 43.18$ ,  $df = 33$ ,  $p = .11$ ,  $\chi^2/df = 1.31$ , CFI = .98, TLI = .93, RMSEA = .03, SRMR = .00 (within-level) and .06 (between-level); \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$



**Figure 4.3.** Interaction plot for the relationship between day-level work pressure and day-level seeking resources moderated by day-level job autonomy



**Figure 4.4.** Interaction plot for the relationship between day-level work pressure and day-level reducing demands moderated by day-level job autonomy

When there is mixture of significant and null interaction effects within the same analysis, power analysis could shed light on the relative importance of the results (McClelland & Judd, 1993). We, thus, conducted post-hoc power analysis via Monte Carlo simulation over 10000 samples in Mplus. This analysis revealed that the statistical power of the test was .81 when the interaction between day-level work pressure and day-level autonomy predicted day-level seeking resources, .08 when predicting day-level seeking challenges and .54 when predicting day-level reducing demands. Therefore, the statistical power of the test was insufficient in predicting seeking challenges, which could explain the non-significant effect of the interaction term.

Hypothesis 5 suggested a positive link between day-level seeking challenges and resources and day-level work engagement, and a negative link between day-level reducing demands and day-level work engagement. Indeed, while day-level seeking challenges was positively associated with day-level work engagement, day-level reducing demands was negatively associated with day-level work engagement. Day-level seeking resources did not have significant effect on day-level work engagement. Therefore, Hypothesis 5 was partially supported. It is worth noting, though, that day-level work engagement showed significant correlation with day-level seeking resources at the between level ( $r = .26, p < .05$ ) and non-significant correlations with day-level seeking challenges ( $r = .03, p = .81$ ) and with day-level reducing demands ( $r = .14, p = .34$ ) at the between level.

Type of organizational change yielded the following effects: New technologies were negatively related to day-level work engagement. New products were negatively associated with day-level seeking challenges. New clients were positively related to day-level seeking resources, seeking challenges and work engagement (see Figure 4.2). The other changes had non-significant effect on daily job crafting and work engagement.

## 4.9 Discussion

The purpose of the present study was to get a firmer grip on job crafting behavior in organizations that face organizational change. By combining a daily diary approach with a general survey, our study contributed to the literature in several ways. First, we re-conceptualized job crafting not only at the general but also at the day-level. General and day-level job crafting consisted of the expected three dimensions, namely, seeking resources,

seeking challenges, and reducing demands. Second, the contextual correlates of job crafting were tested. Employees in active jobs performed higher levels of day-level seeking resources (but not seeking challenges) and lower levels of day-level reducing demands. Third, the relationship between work engagement and job crafting was examined. In particular, on days that employees sought challenges more or reduced their demands less, they were more engaged. Finally, a possible link between job crafting and organizational change was proposed. While ‘new products’ were associated with lower seeking challenges, ‘new clients’ were associated with higher seeking resources and higher seeking challenges.

The added value of our design is to be found in our focus on daily dynamics of job crafting behaviors that was enabled by our diary approach. We found that not only did individuals differ from each other in the degree to which they craft their job, but they also differed from day to day in their individual crafting behavior. The three-factor structure of job crafting was confirmed, not only at the general but also at the day-level with moderately satisfactory fit indices for the general-level and excellent fit for the day-level model. Different types of CFA sample size recommendations (e.g., Boomsma, 1982; Marsh, Hau, Balla, & Grayson, 1998) seem to agree on the fact that a minimum sample size of 100 respondents is required to achieve convergence in our CFA at the general level and that larger samples generally improve model convergence. Therefore, we should be cautious in trusting the CFA results. Our considerably larger number of observations at the day-level, however, renders the MCFA results more trustworthy and provides support to a three-factor dimensionality of job crafting reported as daily behavior. Additionally, the large amount of within-level variance of job crafting indicates that job crafting varies substantially from day to day. Finally, conceptualized at the day-level, job crafting has increased face validity and elicits a higher frequency of reported behaviors by respondents than what is found by previous research (e.g., Lyons, 2008). Changing the aspects of one’s job is more likely to happen, at least at the day-level, than changing one’s job scope overall. All these findings enrich research on the day-level views of proactive behaviors (e.g., Sonnentag, 2003) and form a response to the call for more episodic approaches in the study of discretionary behaviors at work (Fay & Sonnentag, 2010). By expanding the JD-R conceptualization of job crafting to include the day-level, job crafting is conceived as unfolding daily and targeting the direct work environment surrounding the individual, illustrating how job crafting is distinct from other similar proactive behaviors.

Our study addressed and partially confirmed a link between an active job environment and job crafting. On days that employees experienced high job autonomy and high work pressure, they were found to engage in higher seeking resources and lower reducing demands. The high levels of seeking resources are consistent with the active learning hypothesis (Karasek, 1979) suggesting that an active job environment will facilitate learning and development. Low levels of reducing demands confirm indirectly Karasek's predictions. Since the active behaviors developed within the "good stress" of active jobs predict employee motivation (Karasek, Brisson, Kawakami, Houtman, & Bongers, 1998, p. 323), active workers would not be likely to reduce the job demands that make their jobs challenging. Despite the controversy surrounding Karasek's propositions (e.g., Taris et al., 2003), the link between active jobs characteristics on the one hand, and increased seeking resources and decreased reducing demands on the other hand, is consistent with previous research connecting active jobs with seeking feedback (Dollard & Winefield, 1998), new skills acquisition (De Witte, Verhofstadt, & Omey, 2007), problem-focused mechanisms comprising seeking social support (Torp, Riise, & Moen, 2001) and working overtime (Van der Hulst, Van Veldhoven, & Beckers, 2006).

The interaction between work pressure and autonomy was not related to seeking challenges. This may have to do with the insufficient power of the test to detect this interaction, which was found to be well below average. Another interpretation might have to do with the organizations under study. Interaction effects of demands and control have often predicted job challenge only in particular occupational groups (De Jonge, Dollard, Dormann, Le Blanc, & Houtman, 2000). Our design used a heterogeneous sample and therefore might not be ideal to detect such an effect. Furthermore, it is very likely that certain active work environments are so demanding as to make the search for more challenges impossible or even counter-productive.

The links that we found between job crafting and work engagement illustrate a potential motivational role for job crafting. Previous research has linked proactivity to organizational commitment (Kirkman & Rosen, 1999) and work engagement (Hakanen et al., 2008; Salanova & Schaufeli, 2008). Job crafting (conceptualized as task, relational and cognitive crafting) has been associated positively with job satisfaction, commitment and job effectiveness and negatively with absenteeism (Ghitulescu, 2006). In our study, however, job crafting is conceptualized in terms of



demands and resources. The finding that daily seeking challenges is positively associated with daily work engagement and that daily reducing demands is negatively associated with daily work engagement are indicative of a particular pattern. Taken together, the two findings confirm the predictions of Podsakoff et al.'s (2007) two-dimensional challenge and hindrance work stressor framework. This model proposes that contrary to hindrance stressors, challenge stressors are associated positively with motivational outcomes at work. Therefore, seeking challenges results in the accumulation of challenges that further stimulate employees, whereas reducing demands, by eliminating those challenges, results in a less stimulating environment. This confirms Wrzesniewski and Dutton's (2001) theoretical proposition that job crafting has positive as well as negative sides and offers a possible answer to Oldham and Hackman's (2010) calls for research on dysfunctional consequences of job crafting.

Contrary to existing evidence on the motivational nature of job resources (Demerouti et al., 2001; Salanova & Schaufeli, 2008), day-level seeking resources was not linked to day-level work engagement. Perhaps, this finding is not so surprising if we consider that this path was modeled at the within level. By looking at the within level we test if employees report higher engagement on days when they seek more resources than they generally do (intraindividual comparison). Job resources, however, such as feedback, support or advice have more social and relational aspects than job demands and challenges and they become more important when examined in comparison with others (interindividual comparison). This possibility is addressed by the correlations that we found at the between level, which is the level that reveals interindividual comparison: Day-level work engagement correlated with day-level seeking resources but not with day-level seeking challenges and reducing demands.

Research has shown that qualitative assessments of job crafting are associated positively with readiness to change (Lyons, 2008), addressing a possible link between job crafting and employee willingness to facilitate or participate in organizational change. In this study we found that changes involving new clients were linked to higher seeking resources, seeking challenges and work engagement. That seems to support Wrzesniewski and Dutton's (2001) and Van den Heuvel et al.'s (2010) proposition that job crafting can be of particular importance during organizational change. When employees are not in a phase of resistance, they may facilitate their adaptation to the change proactively. The

way to achieve this can be by adjusting their work environment. At the same time, new products or services were found to be negatively related to work engagement and seeking challenges and new technologies were associated negatively with work engagement. In other words, it seems that changes with a technical aspect (new technologies or products) seem to have negative motivational implications, whereas changes with a social aspect (new clients) seem to have positive motivational implications.

Next to the contributions, limitations of the study should be noted as well. First, results concerning the relationships between the variables are correlational in nature. The multilevel approach that we followed provides better estimates for the variables by taking into account the individual baselines, but inferences regarding causality or time sequence of the effects are still limited. Second, data relied on self-report and therefore can be subject to common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, controlling for the general level of variables partially rules out the possibility that the effects we found are attributed to general individual tendencies instead of daily factors. Third, our sample was not drawn by random selection, which may introduce biases into the parameter estimates. Last, some of the day-level scale reliabilities were below the proposed cut-off levels, although such reliabilities have often been reported in diary studies with small samples (e.g., Xanthopoulou et al., 2009).

### **Implications and future research**

There are a number of issues that future research may want to address. First, longitudinal replications of our study can test whether job characteristics, job crafting and work engagement form a system of interrelated forces, perhaps of reciprocal nature, rather than being connected through a clear set of causal relationships. Furthermore, longer time intervals between measurements will shed light to patterns not displayed within one day. For instance, workers in active jobs may want to reduce their demands after long exposure to excessive workload. Longitudinal methodologies will also show whether, in the long run, crafters exert an influence on the demands and resources of their work environment. Second, future research could examine more motivational outcomes than engagement or explore extrinsic motivational implications of job crafting. The latter will reveal whether job crafting plays the role of a strategic behavior targeted to external rewards or recognition. Third, the links that we found between types of change and job crafting might serve as preliminary evidence for the implications of job crafting

for organizational change. Future research should focus more on how crafters deal with change. Also, whether major change facilitates job crafting, which we considered to be unlikely, remains to be tested. Finally, research on organizational change can incorporate job crafting as a possible coping mechanism, for instance through reducing demands as a means to prevent burnout.

Proactive employee behaviors can either be constrained or prompted by management. As far as it concerns organizational implications, job crafting is neither inherently good nor bad. While management is usually responsible for job redesign and changes in roles and tasks, job crafting is “secretive” in nature. At some extent, job crafting is to be performed by employees in any type of job. Some managers will reject the idea of job crafting. On the one hand, excessive job crafting could lead to procrastination, provoke feelings of role ambiguity or unfairness and disrupt group dynamics or managerial control. On the other hand, crafting can be seen as a proactive and problem-focused coping behavior through which employees engage in creative problem solving. It could enhance employee sense of control, job satisfaction, work engagement and ultimately job performance. Furthermore, it can function as a costless form of informal on-the-job training and individual job redesign. Therefore, the consequences of job crafting may differ per stakeholder. Some type of job crafting which is positive and helpful for the individual could easily prove to be counterproductive for an organization as a whole.

For all these reasons mentioned above, job crafting should be encouraged and facilitated as long as it is in the same line with the organizational aims. One way to do that is through empowerment provided by leaders. Similarly, increasing job control next to high demands, is an effective way in which managers can provide an “active learning” environment that will foster personal initiative. Finally, interventions at the workplace can be another way to increase employee awareness and capacity to craft. Daily or weekly workplace interventions targeted to specific job demands or job resources can be used as a concrete and effective way to facilitate job crafting.

On a final note, we should not forget that job crafting does occur and can indeed be very helpful. Acknowledging job crafting as an existing and natural behavior of employees is not merely the only option for managers, but also a unique opportunity to maximize employee potential and achieve multiple organizational positive outcomes.

# 5

## Employee Job Crafting in Changing Environments: Longitudinal Relationships with Antecedents and Outcomes

**Based on the manuscript:**

Petrou, P., Demerouti, E., & Schaufeli, W. B. (2013). Employee job crafting in changing environments: Longitudinal relationships with antecedents and outcomes. *Revise & Resubmit Status*.

## 5.1 Introduction

External drivers of rapid organizational change are constantly calling for both “adaptive individuals” and “adaptive organizations” (McGreevy, 2003). This is not without costs for employee health and performance since transitions in working life may often lead to disruptions and employee anxiety (Abrahamson, 2004). Change is usually a top-down process, implemented, for example, by change agents and managers (van der Ven, 2011). Eventually, though, organizations must rely on their employees to realize change (Van Dam, Oreg, & Schyns, 2008). Recent theoretical views on positive organizational change have acknowledged the role of the employee within successful organizational change. For example, job crafting, involving self-initiated and voluntary behaviors enacted by employees in order to change and reshape their jobs, is proposed as a way to survive a rapidly transforming work environment (Kira, van Eijnatten, & Balkin, 2010; van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). Little is, however, known about the way in which a changing work environment stimulates job crafting behaviors or about the effects of job crafting on employee health and performance. During times that organizational change is a continuous and emotionally demanding phenomenon (Smollan, Sayers, & Matheny, 2010) the role of employee job crafting becomes not only theoretical but also practically important. Therefore, the present paper aims to address job crafting as an employee strategy to deal with organizational change.

More specifically, the first aim of our study is to gain insight into the factors that encourage job crafting behaviors within the context of organizational change. On basis of Parker, Bindl and Parker’s (2010) model of proactive motivation, we examine the conditions (at the individual and the organizational level) that trigger employees to craft their jobs in order to deal with change. We examine these conditions by focusing at two factors: (i) impact of change (i.e., the impact that changes have on the daily activities of employees; Wanberg & Banas, 2000), and (ii) employee willingness to follow the implemented change (Metselaar, 1997).

Our second aim is to address and clarify the relationship between job crafting behaviors and employee adjustment during organizational change over time. By disrupting work routines (Callan, 1993), organizational change may impair employee task performance. Furthermore, organizational changes often induce insecurity and lack of control. In

such cases employee exhaustion can be an additional costly symptom of organizational change (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004; Leiter & Harvie, 1998). Therefore, in the present paper, we conceptualize employee adaptation to change not only in terms of task performance, but also in terms of employee well-being. We, thus, test if job crafters are able to display high task performance and to protect themselves from feelings of exhaustion. In addition, we test if exhausted employees craft their jobs so as to deal with their high level of stressors.

In order to reach these two goals, we conducted a two-wave study where we measured all constructs of interest at the start of and right after the implementation of organizational changes among police officers, a population known to face elevated job stress and frequent organizational changes (Juniper, White, & Bellamy, 2010). Our study extends literature on the novel area of job crafting by addressing individual and contextual factors within organizational change that predict job crafting and by examining the connection of job crafting with employee adjustment during change.

## 5.2 Conceptualization of job crafting

Job crafting (Wrzesniewski & Dutton, 2001) represents actions employees take so as to alter the task boundaries of a job (i.e., type or number of activities), the cognitive task boundaries of a job (i.e., how one sees the job) and the relational boundaries of a job (i.e., whom one interacts with at work). In this sense, for example, hospital cleaners starting to interact with patients (Wrzesniewski & Dutton, 2001) or a police officer who organizes volleyball trainings to increase the physical condition of herself and her colleagues could be called job crafters. In order to describe more in detail the actions that are performed by job crafters, recent literature (Petrou, Demerouti, Peeters et al., 2012; Tims, Bakker and Derks, 2012) has used the Job Demands-Resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) as conceptual framework. This framework distinguishes job characteristics into job demands (i.e., the demanding aspects of a job which require physical and psychological effort) and job resources (i.e., job aspects that are functional for achieving work goals and can eliminate the costs of the demands). While job resources primarily enhance employee work motivation (Demerouti et al., 2001), job demands impair employee health (Demerouti et al., 2001) and may also enhance employee work motivation when they function as

stimulating challenges (e.g., Prieto, Soria, Martinez, & Schaufeli, 2008; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). Following this stream of literature (i.e., Petrou, Demerouti, Peeters et al., 2012), we, thus, refer to job crafting as voluntary self-initiated employee behaviors targeted to seeking resources (i.e., asking manager or colleagues for advice), seeking challenges (i.e., asking more responsibilities) and reducing demands (i.e., eliminating emotionally, mentally or physically demanding job aspects).

### 5.2.1 Seeking resources

Human motivation is directed towards the accumulation of resources (Hobfoll, 2001). At the workplace this can take the form of a proactive behavior with positive outcomes for employee motivation and well-being (Salanova & Schaufeli, 2008). In that way, by successfully seeking job resources, employees accumulate resources and expand their current resource pool. Seeking resources can include behaviors such as asking advice from colleagues or supervisor, asking feedback on one's job performance or seeking learning opportunities at work (Petrou, Demerouti, Peeters et al., 2012).

### 5.2.2 Seeking challenges

Job demands do not play an exclusively dysfunctional role (Demerouti et al., 2001). Classic stress theories (Lazarus & Folkman, 1984; Selye, 1987) propose that stressors are often interpreted positively as challenges, leading employees to feel engaged in their work (Prieto et al., 2008). Podsakoff, LePine and LePine (2007) have suggested that there are some demands that have the potential to promote personal growth and achievement. These demands have been called challenge stressors. Challenge is a central idea in the Job Demands-Control framework (Karasek & Theorell, 1990), which assumes that workers in active jobs (characterized by high job demands and high control) seek challenges that promote mastery. Seeking challenging job demands includes behaviors such as looking for new tasks once one finishes his/her work, or taking on more responsibilities (Petrou, Demerouti, Peeters et al., 2012).

### 5.2.3 Reducing demands

Unlike challenging job demands, there are demanding job aspects that employees appraise as potentially constraining their development and performance. These demands have been called by Podsakoff et al. (2007) hindrance stressors. Employees may sometimes opt to reduce those hindrances, for example, by minimizing the emotionally, mentally

or physically demanding aspects of their work (Petrou, Demerouti, Peeters et al., 2012; Tims et al., 2012). Reducing job demands is not an extensively studied employee behavior. Avoidance coping techniques, which could involve similar behaviors, are linked with impaired mental health and social functioning (Endler & Parker, 1994) and should relate to individuals' emotional numbness and unawareness of what causes them stress (Roth & Cohen, 1986). Although at work employees may eliminate their demands to avoid stress (Tims & Bakker, 2010), it seems that these employees are not particularly engaged in their work (Petrou, Demerouti, Peeters et al., 2012).

### 5.3 Organizational change and job crafting

By balancing the demands, the challenges and the resources of their jobs, job crafters regulate their behavior according to environmental conditions. This becomes particularly important during organizational change, an often ambiguous situation. Such a situation has been described by Mischel (1977) as “weak” because it does not in itself provide strong cues for the appropriateness of the responses to it. In such occasions, proactive work behavior, like job crafting, becomes increasingly important because it enables new work roles to emerge and helps employees adapt to the demands of new situations (Griffin, Neal & Parker, 2007; Berg, Grant, & Johnson, 2010). However, the perceived demands of a situation are not enough to explain job crafting for all employees. In fact, not all employees would be as willing to respond to these demands in proactive ways. For this reason, in their model of proactive motivation, Parker et al. (2010) propose that contextual factors (e.g., job stressors) should be complemented by individual differences (e.g., openness to change, positive effect) in shaping employee motivation to perform proactive actions. In other words, both individual and contextual factors should act as antecedents to self-initiated employee behaviors, such as job crafting.

We propose that when employees assess whether they will craft their jobs within an organizational context, both contextual and individual factors become of critical importance. Their decision to craft their jobs may, thus, be determined not only by their changing environment (e.g., are there visible organizational changes that they face?) but also by their orientation towards this changing environment (e.g., do they assess these changes in a positive or negative way?). For that reason we focus on two different potential



antecedents of job crafting behaviors. First, the impact of the implemented organizational changes on the daily working life of employees (Wanberg & Banas, 2000) can function as a situational demand providing employees with the reason to craft their job. In that sense, employees could craft their jobs in order to cope with changes of particularly high impact. Second, a positive motivational orientation of employees towards the implemented changes (Cunningham, Woodward, Shannon, Macintosh, Lendrum, Rosenbloom, & Brown, 2002) may also increase the chances that employees will enact job crafting. In this case, job crafting will not be a means of coping but instead a way to grow and develop and to increase one's level of functioning at work.

### 5.3.1 Impact of organizational change

Organizational change disrupts work routines (Callan, 1993), triggers feelings of uncertainty (Rafferty & Griffin, 2006) or distrust to the organization (Morgan & Zeffane, 2003) and may cause irritation (Wanberg & Banas, 2000). These negative reactions are more likely to be triggered by organizational changes of high impact on the working life of employees. We define organizational changes of high impact as the changes that are particularly visible and that continuously confront employees in their daily working life (cf. Wanberg & Banas, 2000). Such changes may require employees to exert effort in order to respond to the emerging uncertain and emotionally demanding situation. Therefore, they will not only lead employees to experience elevated job stress and anxiety (Callan, Terry, & Schweitzer, 1994; Cartwright & Cooper, 1993) but, ultimately, a state of exhaustion (Bordia, Hobman, et al., 2004). Exhaustion has been defined as the consequence of intensive physical, emotional and cognitive strain and together with depersonalization (i.e., a state of distancing oneself from one's work) forms the syndrome of burnout (Demerouti et al., 2001).

Reducing the scope or scale of one's tasks could be a way to deal with stress at work (Wrzesniewski & Dutton, 2001), therefore, certain forms of job crafting can be triggered by organizational changes of high impact. Indeed, several ways of optimizing one's workload have been reported as means of coping with organizational change, for example, delegation (Robinson & Griffiths, 2005), dropping one's activities (Patterson, Cook, & Render, 2002) or turning down the assignment of new responsibilities (Kira, Balkin, & San, 2012). Apart from reducing demands, seeking job resources has also been proposed as a problem-focused strategy that is used to cope with change. For example,

the use of social resources (i.e., contact with others) or seeking of information can provide employees with a sense of belonging and a positive self-concept that protects them from the adverse effects of stress (Callan, 1993). For all the aforementioned reasons, we hypothesize:

**Hypothesis 1:** High impact of organizational changes is positively associated with exhaustion (1a), seeking resources (1b) and reducing demands (1c).

### 5.3.2 Motivational orientation towards organizational change

People's intention to perform a behavior is predictive of their actions because it is associated with perseverance and effort (Ajzen, 1991). Therefore, willingness to change leads individuals to exert more effort not only towards change implementation but also against obstacles preventing the change from succeeding (Metselaar, 1997). Similarly, when employees experience a positive motivational orientation towards the changes, they engage in discretionary work behaviors as a means of cooperation with the change initiatives (Herscovitch & Meyer, 2002). On the contrary, when employees are not ready to embrace organizational changes, they may display withdrawal, counter-productive or even sabotage behaviors (Stensaker, Meyer, Falkenberg, & Haueng, 2002). Changes that employees are aversive to are not expected to stimulate self-initiated and voluntary employee behaviors like job crafting.

In other words, when employees are willing to change, they are more likely to craft their jobs in order to increase their level of functioning within their changing environment. Rather than resisting or ignoring the change, they comply with it by adjusting their changing jobs according to their own needs and preferences. For example, via seeking resources (e.g., feedback, support or contact with others) they attempt to sustain and maximize the facilitators (Hobfoll, 2001) that will help them realize change. Via seeking challenges, they create an active and motivating work environment (Karasek & Theorell, 1990). Hence, we formulate:

**Hypothesis 2:** Willingness to change is positively associated with seeking resources (2a) and seeking challenges (2b).

## 5.4 The effects of job crafting on employee adjustment during change

Employees who craft their jobs have more chances to adjust successfully to organizational change because they are able to realign their jobs (Wrzesniewski & Dutton, 2001) and their work roles (Griffin et al., 2007) according to their own preferences and to the new situation that emerges at their work. Because organizational change is demanding and stressful, employee adjustment does not only mean that employees perform their tasks adequately (Schweiger & Denisi, 1991) but also that their well-being stays intact (Bordia, Hobman, et al., 2004). Therefore, in the present paper we focus on the links that job crafting potentially holds with employee exhaustion as well as task performance. Task performance refers to the extent to which employees fulfil the prescribed requirements of their role (Griffin et al., 2007).

The empirical links between employee job crafting and performance or exhaustion during organizational change still remain largely unexamined. It has been proposed that by developing their personal resources (e.g., knowledge, self-esteem), job crafters survive the demands of the dynamic post-industrial work environment (Kira et al., 2010). Qualitative evidence reveals that during organizational change employees try to increase the feeling of authenticity at their work (i.e., the feeling that they are in the right job) via job crafting (Kira et al., 2012). But what effects do job crafting behaviours have on employee well-being and job performance within changing organizations?

### 5.4.1 Seeking resources

Job resources are by definition associated with improved employee job performance because they comprise factors that are functional for the achievement of work goals (Demerouti et al., 2001). In addition, job resources have the capacity to diminish the demanding aspects of the job environment and their associated cost (Bakker & Demerouti, 2007). An adequate job resources pool, thus, facilitates task performance (Bakker et al., 2004) and protects employees from the experience of exhaustion (Schaufeli & Bakker, 2004). Provided that seeking resources behaviors will lead to the accumulation of resources, such behaviors are expected to protect employees from job stress (Tims & Bakker, 2010) and have been found to enhance employee task performance (Tims et al., 2012). In the context of organizational change, job resources are particularly helpful. First, by reducing employee feelings of uncertainty

and providing them with a strong social support network (Robinson & Griffiths, 2005), seeking resources will reduce the risk for employee exhaustion. Second, by providing employees with the necessary information (Robinson & Griffiths, 2005) or instrumental task-related assistance (Terry & Jimmieson, 2003), seeking resources will help them perform their tasks adequately and eventually adjust to the new situation. Hence, we formulate:

**Hypothesis 3:** Seeking resources is negatively associated with exhaustion (3a) and positively with task performance (3b).

#### 5.4.2 Seeking challenges

By enhancing positive attitudes and emotions, job challenges help employees stay involved in their tasks and thrive at their work (Podsakoff et al., 2007). Challenges mobilize one's coping resources and are associated with confidence and "outstanding performance" (Lazarus, 1993; p. 5). A challenging job environment motivates employees to engage in active learning of new skills (Karasek & Theorell, 1990). First, via the accumulation of new skills, this active employee approach empowers employees and helps them achieve a high level of performance and efficiency at work (Speitzer, Kizilos, & Nason, 1997; Spence, Laschinger, Finegan, Shamian, & Almost, 2001). Second, by preparing employees against future challenges or stressors and by providing them with feelings of mastery and self-efficacy, it protects them from the experience of anxiety (Holman & Wall, 2002). Similarly, when employees craft their work environment in order to create extra tasks of challenging nature, they gain control over their environment and they create a positive self-image (Wrzesniewski & Dutton, 2001). Such an active employee approach becomes particularly important in organizational change context because it provides employees with feelings of mastery and self-efficacy (Armenakis & Bedeian, 1999; Bandura, 1986). Consequently, this state protects employees from potential feelings of incompetence that threaten their adjustment during change (Terry & Jimmieson, 2003).

All in all, we propose that seeking job challenges should provide employees with the skills necessary for high-level work achievement as well as a resilient and efficacious self-image that will act as a protective shield against exhaustion. Therefore, we formulate:

**Hypothesis 4:** Seeking challenges is negatively associated with exhaustion (4a) and positively with task performance (4b).

### 5.4.3 Reducing demands

Although employees reduce their demands so as to protect their well-being (Tims & Bakker, 2010), withdrawal and avoidance work behaviors are generally suggested to be an indicator of employee dissatisfaction and to lead to poor job performance (Judge, Thoresen, Bono, & Patton, 2001). Avoiding or delaying tasks may on the short-term relieve individuals but on the long-term is not functional (van Eerde, 2000). Of course, reducing one's job demands is about managing demands and not necessarily avoiding them. But in most organizations today accumulating workload is a common aspect of the work environment. In such a context reducing job demands is not possible without some extent of avoiding or disregarding demands. The tasks that someone avoids do not disappear. Consecutively, workload accumulates and individuals keep worrying about their tasks. Therefore, by triggering time pressure, avoidance behaviors should on the long run lead to exhaustion (Salmela-Aro, Tolvanen, & Nurmi, 2009) anxiety and poor performance (van Eerde, 2000). Indeed, delaying behaviors have been shown to impede performance (Steel, 2007) and to contribute to a form of "self-handicapping" which is predictive of burnout (Akin, 2012). Things should become even worse during organizational change, which normally dictates new demands to employees. In this context, employee reactions like escaping, withdrawal or avoidance are expected to be largely inefficient. Because of their disengaging nature such behaviors are predictive of poor employee adjustment (Amiot, Terry, Jimmieson, & Callan, 2006) and exhaustion (Terry, Callan, & Sartori, 1996) within organizations under change. We, therefore, formulate:

**Hypothesis 5:** Reducing demands is positively associated with exhaustion (5a) and negatively with task performance (5b).

### 5.4.4 Do exhausted employees craft their jobs?

Certain developmental models of burnout propose that after feeling exhausted, burned out individuals will develop a lack of professional efficacy (Toppinen-Tanner, Kalimo, & Mutanen, 2002) because of their inability to exert cognitive and emotional effort in order to conform to situations (Demerouti, Verbeke, & Bakker, 2005). Exhausted

employees are depleted of their energetical resources and they are unable to recover from their work. Therefore, the effort that they put in their tasks diminishes and, consequently, their task performance is impaired (Bakker et al., 2004). In such a dysfunctional state of helplessness (Lee & Ashforth, 1993) and eroded self-image (Brotheridge & Lee, 2002), employees will do anything that could make their situation less demanding and draining. Therefore, they will try to cope with their stress in the least demanding ways and they will try to take control of the situation by eliminating the demanding aspects of their job. Therefore, we formulate:

**Hypothesis 6:** Exhaustion is positively associated with reducing demands (6a) and negatively with task performance (6b).

Taken together, our hypotheses imply a number of indirect effects that can be examined. To keep our focus within a meaningful amount of effects, we will focus on the link between organizational change variables (i.e., impact of changes and willingness to change) and employee outcomes (i.e., exhaustion and task performance) via job crafting. This is in line with our expectation that job crafting is an employee strategy, which is triggered by organizational change and is enacted as a reaction to it. Therefore, we formulate the following indirect relationships: First, impact of changes will lead to high exhaustion and low task performance via decreasing demands. Second, impact of changes will lead to diminished exhaustion and high task performance via seeking resources. Third, willingness to change will lead to diminished exhaustion and high task performance via seeking resources and seeking challenges.

## 5.5 Method

### 5.5.1 Study design and participants

The current study is based on a longitudinal 2-wave research project conducted among police officers working in one police district in the Netherlands. Throughout a period spanning from the first time point until the second time point, the organization introduced various organizational changes. These included a new computer system and professionalization of the police workforce through trainings. Furthermore, in order to increase efficiency, an organizational restructuring began which resulted in the merging of departments and relocations of police officers. No police officers were made

redundant. At T1 (Time 1) 1780 invitations were sent to police officers via email to participate in an online survey through a personalized link that they received with the email. Of them, 950 completed the survey resulting in a response rate of 53%. At T2 (Time 2) 1854 invitations were sent and 810 employees completed the survey, resulting in a response rate of 44%. The final sample, which was used for data analysis, comprised 580 police officers who participated in both surveys. Of the respondents, 380 (66%) were men and 200 (35%) were women. Their mean age was 43 years old ( $SD = 9.93$ ) and the mean tenure within the police force was 18 years ( $SD = 11.63$ ). More than half of the respondents (58%) worked principally in executive patrol services (i.e., out of office), while 42% of the sample held principally administrative or support positions (i.e., at the office). The majority of them (88%) held a non-supervisory function. Dropouts were younger,  $t(734) = -2.63, p < .01$ ; they worked less years within the police force,  $t(948) = -2.02, p < .05$ ; and they were working more in executive patrol services,  $t(816) = 2.92, p < .01$ . They did not differ significantly on any other variables, namely, gender,  $t(948) = .88, p = .38$ , impact of change,  $t(948) = -.84, p = .40$ , willingness to change, seeking resources,  $t(948) = -.04, p = .97$ , seeking challenges,  $t(948) = -.40, p = .69$ , reducing demands,  $t(948) = .12, p = .91$ , exhaustion,  $t(948) = -1.19, p = .23$  and task performance,  $t(948) = -.75, p = .46$ .

### 5.5.2 Measures

*Impact of changes* was measured with a single item by Wanberg and Banas (2000) adapted to refer to the situation of the police officers. After respondents read a short description of the changes taking place, they had to rate the item (“To what extent do the changes affect your daily work?”) using a scale ranging from 1 (= I hardly experience them) to 10 (= I experience them daily).

*Willingness to change* was measured with a 4-item scale developed by Metselaar (1997). Items were scored on a 5-point scale ranging from 1 = totally disagree to 5 = totally agree. An example item is “I’m willing to convince colleagues of the benefits the change will bring” (Cronbach’s  $\alpha_{T1} = .90$ ;  $\alpha_{T2} = .91$ ).

*Job crafting* was measured with three scales of general-level job crafting used by Petrou, Demerouti, Peeters et al. (2012). Respondents were asked to indicate how often they engaged in several behaviors during the past three months using an answering



scale ranging from 1 = never to 5 = always. Because of length constraints, we used a shortened version of the 6-item seeking resources subscale by excluding two items that in the original scale (Petrou, Demerouti, Peeters et al., 2012) had a factor loading below .40. Therefore, *seeking resources* was measured with 4 items. An example item is “I ask others for feedback on my job performance” (Cronbach’s  $\alpha_{T1} = .70$ ;  $\alpha_{T2} = .68$ ). *Seeking challenges* included 3 items, such as “I ask for more tasks if I finish my work” (Cronbach’s  $\alpha_{T1} = .75$ ;  $\alpha_{T2} = .77$ ). *Reducing demands* included 4 items, such as “I try to ensure that my work is emotionally less intense” (Cronbach’s  $\alpha_{T1} = .78$ ;  $\alpha_{T2} = .79$ ).

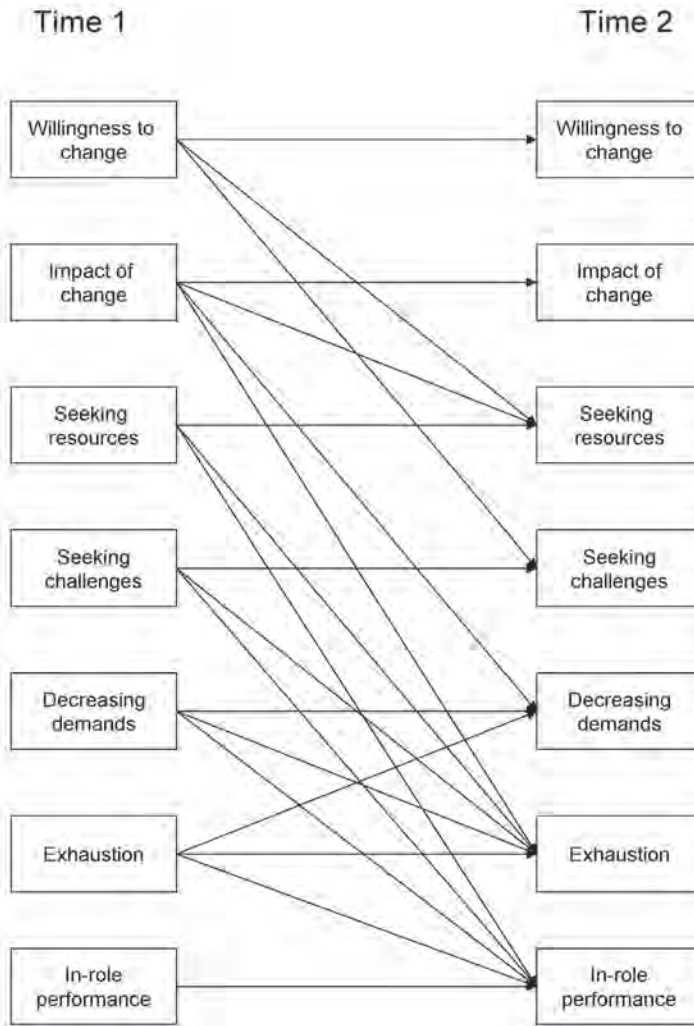
*Exhaustion* was measured with the 6-item exhaustion subscale from the Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou, & Kantas, 2003). A sample item is “During my work, I often feel emotionally drained” (Cronbach’s  $\alpha_{T1} = .79$ ;  $\alpha_{T2} = .77$ ). Respondents rated each statement using a scale ranging from 1 = totally disagree to 4 = totally agree.

*Task performance* was measured with the 3-item individual task proficiency scale validated by Griffin et al. (2007). A sample item is “I carry out the core parts of my job well” (Cronbach’s  $\alpha_{T1} = .85$ ;  $\alpha_{T2} = .88$ ). Respondents rated each statement using a scale ranging from 1 = totally disagree to 6 = totally agree.

### 5.5.3 Data analysis

To test our hypotheses simultaneously, we performed covariance structure modeling (Jöreskog & Sörbom, 1993) using the AMOS computer program (Arbuckle, 1997). Considering the large number of the variables in the model, we decided to reduce the complexity of our hypothesized SEM model (i.e., the number of freely estimated parameters) without paying the price of losing information, by using manifest variables (Jöreskog & Sörbom, 1993). Therefore, all variables of the model, namely, impact of change, willingness to change, job crafting, exhaustion and task performance were observed variables (see Figure 5.1).





**Figure 5.1.** Hypothesized model

*Note.* Synchronous correlations and control variables are not displayed for clarity purposes

Synchronous correlations were specified as correlations between the errors of all the constructs measured within the same time wave. Stability effects were specified by including paths from all T1 variables to all their respective T2 variables. Because employees are more positively oriented towards organizational changes when they are younger (Furst & Cable, 2008) or work at higher levels of the organizational hierarchy (Judge, Thoresen, Pucik, & Welbourne, 1999), we included age and supervisory function as control variables in our model. Both control variables were T1 variables,

they were allowed to correlate with all T1 study variables and they exerted effects to all T2 study variables (Demerouti, Le Blanc, Bakker, Schaufeli, & Hox, 2009). To test our hypotheses, a number of models were fitted to the data in several steps. The methodology of model testing that we followed agrees with the recommendations of Taris and Kompier (2006) and with previous research practice (Demerouti, Taris, & Bakker, 2007) for obtaining evidence for mediation in 2-wave panel studies.

First, *Model 1* included only temporal stabilities, synchronous correlations, and the paths from the control variables to the dependent variables. This stability model served as reference model. Following common practice in cross-lagged longitudinal analysis (De Jonge, Dormann, Janssen, Dollard, Landeweerd, & Nijhuis, 2001) the stability model was compared against three competing nested models:

*Model 2:* This model introduced the hypothesized effects of the two organizational change variables. Therefore, it was identical to Model 1 but included in addition paths from T1 impact of organizational change to T2 exhaustion, seeking resources and reducing demands and from T1 willingness to change to T2 seeking resources and seeking challenges.

*Model 3:* This model introduced the effects of job crafting to employee outcomes. It was identical to Model 3 but in addition included paths from T1 seeking resources, seeking challenges and reducing demands to T2 task performance and exhaustion.

*Model 4:* This model introduced the effect of exhaustion. It was identical to Model 3 but in addition included the structural paths from T1 exhaustion to T2 reducing demands and task performance. This cross-path model represents our hypothesized model.

## 5.6 Results

Prior to the model testing, the means, standard deviations and bi-variate correlations (including test-retest correlations) were computed for all study variables (see Table 5.1). Correlations of T1 impact of changes and willingness to change with T2 job crafting ranged between  $|.09|$  and  $|.19|$ , all  $p < .05$ . Correlations of T1 job crafting with T2 task performance and exhaustion ranged between  $|.10|$  and  $|.25|$ , all  $p < .05$ .

**Table 5.1.** Means, standard deviations and intercorrelations between the study variables.

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age (T1)	43.40	9.93	-														
2. Supervisory function (T1)	1.88	.32	-.18***	-													
3. Impact of changes (T1)	5.05	3.16	.19***	-.19***	-												
4. Willingness to change (T1)	3.88	1.07	.19***	-.31***	.11**	-											
5. Seeking resources (T1)	3.48	.54	-.14***	-.16***	-.03	.21***	-										
6. Seeking challenges (T1)	3.08	.79	-.18***	.05	.00	.05	.44***	-									
7. Reducing demands (T1)	2.07	.65	.10*	-.01	.08*	-.08	-.02	.04	-								
8. Exhaustion (T1)	2.12	.46	.07	-.02	.12**	-.17***	-.24***	-.15***	.29***	-							
9. In-role performance (T1)	5.04	.53	.06	-.02	.02	.14**	.12**	.19***	-.23***	-.27***	-						
10. Impact of changes (T2)	5.71	3.20	.19***	-.19***	.55***	.00	.00	.03	.08	.16***	-.01	-					
11. Willingness to change (T2)	3.96	1.06	.13**	-.30***	.17***	.64***	.20***	.07	-.07	-.17***	.17***	.03	-				
12. Seeking resources (T2)	3.37	.55	-.18***	-.16***	.04	.19***	.58***	.28***	.00	-.15***	.03	.11*	.25***	-			
13. Seeking challenges (T2)	2.99	.81	-.25***	-.01	-.01	.09*	.34***	.54***	.03	-.13**	.11**	.03	.16***	.47***	-		
14. Reducing demands (T2)	2.07	.69	.17***	-.04	.15***	-.11*	-.08	-.08	.49***	.32***	-.20***	.13***	-.08	.04	.01	-	
15. Exhaustion (T2)	2.12	.43	.14***	.00	.17***	-.16***	-.23***	-.18***	.25***	.64***	-.28***	.22***	-.23***	-.20***	-.22***	.37***	-
16. In-role performance (T2)	4.24	.60	-.02	-.01	-.07	.13**	.19***	.10*	-.10*	-.28***	.33***	-.05	.18***	.14***	.21***	-.21***	-.38***

Note. T1 = Time 1, T2 = Time 2; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

**Table 5.2.** Goodness of fit indices and chi-square difference tests of the nested structural equation models,  $N = 580$

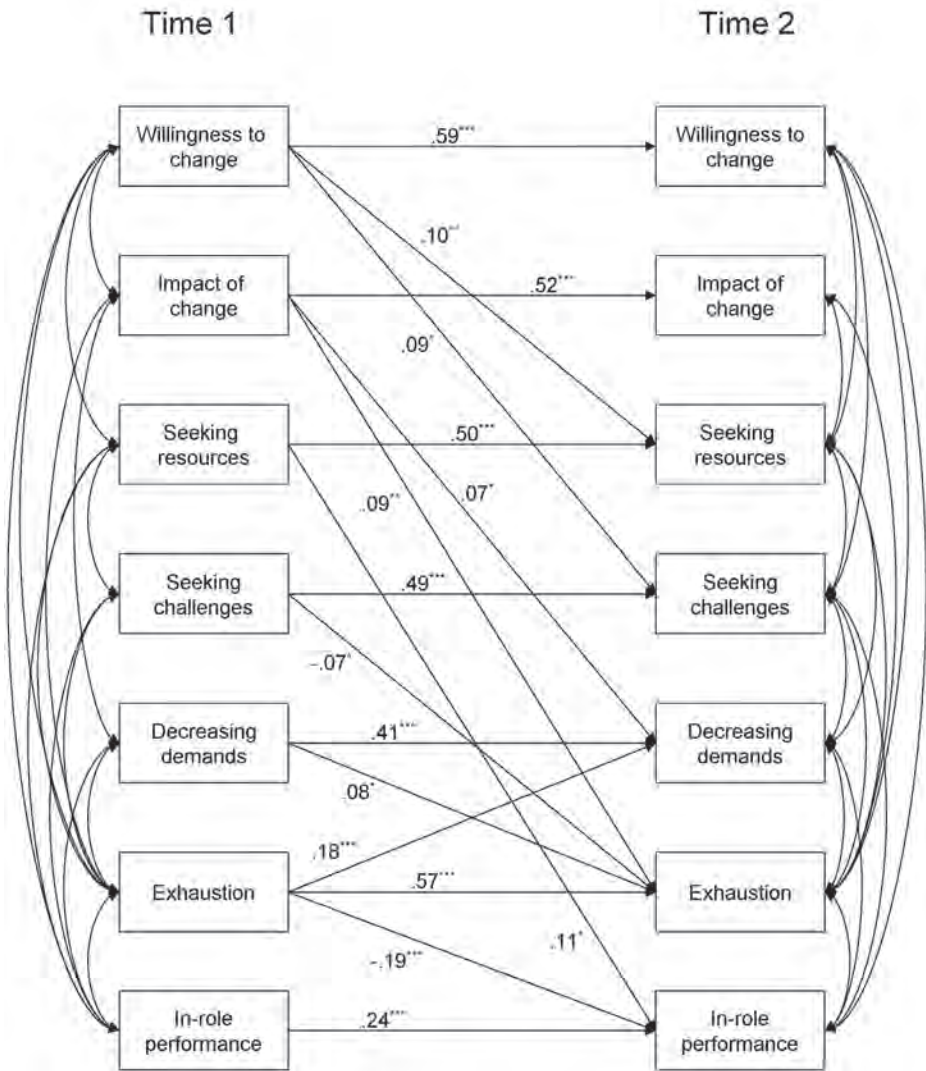
Model	$\chi^2$	df	Comparison	$\Delta\chi^2$	$\Delta df$	CFI	RMSEA	RMR	TLI	GFI
Model 1 (Reference model)	159.94***	42				.95	.07	.06	.86	.97
Model 2	136.71***	37	$M_1$ vs. $M_2$	23.23***	5	.96	.07	.05	.86	.97
Model 3	112.23***	31	$M_2$ vs. $M_3$	24.48***	6	.97	.07	.05	.87	.98
Model 4 (Cross-path hypothesized model)	74.10***	29	$M_3$ vs. $M_4$	38.13***	2	.98	.05	.05	.92	.99

Note. \* $p \leq .01$ , \*\*\* $p < .001$

Table 5.2 presents an overview of the model comparisons and the fit indices of all competing models. In order to test Hypotheses 1 and 2, we examined Model 2. Model 2 displayed acceptable fit to the data ( $\chi^2=136.71$ ,  $df = 37$ ,  $p < .001$ ) that was significantly better than Model 2 ( $\Delta\chi^2 = 23.23$ ,  $\Delta df = 5$ ,  $p < .001$ ). In this model, T1 impact of organizational change was positively associated with T2 exhaustion ( $\beta = .09$ ,  $p < .01$ ), providing support to Hypothesis 1a. T1 impact of changes positively predicted T2 reducing demands ( $\beta = .09$ ,  $p < .05$ ) but not T2 seeking resources ( $\beta = .05$ ,  $p = .12$ ), supporting Hypotheses 1c but not 1b respectively. T1 willingness to change positively predicted T2 seeking resources ( $\beta = .10$ ,  $p < .01$ ) and T2 seeking challenges ( $\beta = .08$ ,  $p < .05$ ), thus, fully supporting Hypothesis 2.

In order to test Hypotheses 3-5, we examined Model 3. Model 3 displayed acceptable fit to the data ( $\chi^2=112.23$ ,  $df = 31$ ,  $p < .001$ ) that was significantly better than Model 3 ( $\Delta\chi^2 = 24.48$ ,  $\Delta df = 6$ ,  $p < .001$ ). In this model, T1 seeking resources positively predicted T2 task performance ( $\beta = .14$ ,  $p < .001$ ) but not T2 exhaustion ( $\beta = -.03$ ,  $p = .35$ ), providing support to Hypothesis 3b but not 3a. T1 seeking challenges negatively predicted T2 exhaustion ( $\beta = -.07$ ,  $p < .05$ ) but not task performance ( $\beta = -.03$ ,  $p = .48$ ), providing support to Hypothesis 4a but not 4b. T1 demands reducing positively predicted T2 exhaustion ( $\beta = .09$ ,  $p < .01$ ) but not T2 task performance ( $\beta = -.04$ ,  $p = .34$ ), supporting Hypothesis 5a but not 5b.

In order to test Hypothesis 6, we examined Model 4. Model 4 displayed acceptable fit to the data ( $\chi^2=74.10$ ,  $df = 29$ ,  $p < .001$ ) that was significantly better than Model 4 ( $\Delta\chi^2 = 38.13$ ,  $\Delta df = 2$ ,  $p < .001$ ). In this model, T1 exhaustion positively predicted T2 reducing demands ( $\beta = .18$ ,  $p < .001$ ) and negatively predicted T2 in-role performance ( $\beta = -.19$ ,  $p < .001$ ), providing full support to Hypothesis 6. Model 4 included all our hypothesized paths and had the best fit to the data (see Figure 5.2;  $\chi^2 = 74.10$ ,  $df = 29$ ,  $p = .000$ , CFI = 0.98, TLI = 0.92, GFI = .99, RMSEA = .05, RMR = .05). It explained 14% in the variance of task performance and 43% in the variance of exhaustion.



**Figure 5.2.** Tested SEM model

*Note.*  $\chi^2 = 74.10$ ,  $df = 29$ ,  $p = .000$ , CFI = 0.98, TLI = 0.92, GFI = .99, RMSEA = .05, RMR = .05; Significant synchronous correlations are displayed without their coefficients for clarity purposes; \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

Taken together, our findings imply a number of indirect effects. AMOS does not perform bootstrapping for specific but only for total indirect effects. Therefore, we used Preacher and Hayes' (2008) SPSS macro to compute confidence intervals for specific indirect effects based on 5,000 bootstrap samples. We performed analyses only if in

Model 4 both the path from the independent variable to the mediator and from the mediator to the dependent variable were significant. All independent variables were measured at T1 and all dependent variables were measured at T2. For every indirect effect we performed two analyses, one in which the mediator was measured at T1 and one in which the mediator was measured at T2. This resulted in a total of six Bootstrap analyses (see Table 5.3). The indirect effect from impact of changes to exhaustion was marginally significant when the mediator was T1 reducing demands (estimate = .003, SE = .001,  $p = .06$ ) and significant when the mediator was T2 reducing demands (estimate = .007, SE = .002,  $p < .001$ ). The indirect effect from willingness to change to task performance was significant when the mediator was T1 seeking resources (estimate = .020, SE = .006,  $p < .001$ ) and also when the mediator was T2 seeking resources (estimate = .013, SE = .005,  $p < .05$ ). Finally, the indirect effect from willingness to change to exhaustion was non-significant when the mediator was T1 seeking challenges (estimate = -.003, SE = .003,  $p = .30$ ) and marginally significant when the mediator was T2 seeking challenges (estimate = -.007, SE = .004,  $p = .052$ ).

In relation to the control variables, it is worth noting that older police officers reported lower seeking resources ( $\beta = -.16, p < .001$ ) and seeking challenges ( $\beta = -.18, p < .001$ ) and higher impact of changes ( $\beta = .08, p < .05$ ), reducing demands ( $\beta = .10, p < .01$ ) and exhaustion ( $\beta = .07, p < .05$ ). Police officers with a supervisory position reported higher impact of changes ( $\beta = .08, p < .05$ ), willingness to change ( $\beta = .11, p < .001$ ), and seeking resources ( $\beta = .07, p < .05$ ).

**Table 5.3.** Bootstrap confidence intervals for specific indirect effects

	Estimate	SE	CI <sub>L</sub>	CI <sub>U</sub>
Impact (T1) → Reducing demands (T1) → Exhaustion (T2)	.003 <sup>†</sup>	.001	.0003	.006
Impact (T1) → Reducing demands (T2) → Exhaustion (T2)	.007 <sup>***</sup>	.002	.004	.012
Willingness (T1) → Seeking resources (T1) → Performance (T2)	.020 <sup>***</sup>	.006	.009	.037
Willingness (T1) → Seeking resources (T2) → Performance (T2)	.013 <sup>†</sup>	.005	.003	.027
Willingness (T1) → Seeking challenges (T1) → Exhaustion (T2)	-.003	.003	-.011	.003
Willingness (T1) → Seeking challenges (T2) → Exhaustion (T2)	-.007 <sup>†</sup>	.004	-.017	-.001

*Note.* Impact = impact of organizational changes; willingness = willingness to change; performance = task performance; CI<sub>L</sub> = lower confidence interval; CI<sub>U</sub> = upper confidence interval; 5,000 bootstrap samples, <sup>†</sup> $p < .06$ , <sup>†</sup> $p < .05$ , <sup>\*\*\*</sup> $p < .001$

## 5.7 Discussion

The goal of the present study was to examine antecedents of job crafting (i.e., impact of changes and willingness to change) as well as its links with employee adjustment (i.e., task performance and exhaustion) within an organizational change context. Our findings show that when employees perceived organizational changes of high impact, they decreased their job demands and reported higher exhaustion, whereas when they were willing to change, they engaged in seeking resources and challenges. Reducing demands positively predicted exhaustion and exhaustion positively predicted reducing demands, revealing a reciprocal link between the two variables. Seeking resources positively predicted task performance and seeking challenges negatively predicted exhaustion.

Depending on their perception of how large organizational changes are and their attitude towards these changes, employees apply different job crafting strategies to deal with their changing environments. On the one hand, by challenging the capacity to respond to new demands, organizational change can impair employee health (Callan, 1993). In that case, employees facing changes of high impact experience exhaustion and cope with their stress by reducing their job demands. On the other hand, organizational change can also be a positive challenge for employees (Avey, Wernsing, & Luthans, 2008). When employees are open to the changes, they enact a more positive approach towards the challenges signaled by them. In that case, they go beyond their formal tasks to display extra-role behaviors that increase their level of functioning (Choi, 2007; Oreg, 2003). For example, via seeking resources and seeking challenges, they create and sustain a challenging, resourceful and motivating environment that helps them not simply survive organizational change but make the most of it. In that sense, our findings support the predictions of Parker et al.'s (2010) model of proactive motivation which distinguishes between contextual antecedents (e.g., situational demands) and individual antecedents (e.g., willingness to change) to self-initiated employee behaviors, such as job crafting. Furthermore, a notable distinction emerges in terms of preference of employees to “protect” or to “enhance their ego” (Ashford, Blatt, & Vandewalle, 2003, p. 779). While the threat of large-scale organizational change triggers the motivation of employees to protect themselves, their willingness to change unleashes their motivation to enhance themselves via seeking resources and challenges.



As we expected, job crafting behaviors exerted an influence on employee adjustment during organizational change. Seeking resources predicted positively task performance. Therefore, when their organization changes, employees do not simply rely on their existing job resources but go on to seek additional job resources that improve their level of functioning at work (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Task performance, however, was not predicted by seeking challenges. While seeking job resources can provide employees with those structural resources, which are necessary to perform their core tasks (Tims et al., 2012), seeking challenges may not have exactly the same function. Seeking challenges may have a more visible and direct effect to other forms of extra-role performance rather than the task performance determined by an employee's role. Perhaps the fact that individuals look for challenges means that they put their effort in tasks other than their assigned tasks, which formally make part of their task performance. Therefore, seeking challenges makes work more interesting without affecting their task performance.

Seeking challenges did, however, have a positive implication, namely it contributed to lower levels of exhaustion. In other words, an approach of actively confronting new demanding aspects of the job is associated with lower rather than higher strain. Indeed, an active and problem-focused approach to work goals has been linked with successful employee adjustment during organizational change and low levels of exhaustion (Cunningham et al., 2002; Terry et al., 1996). Employees with such a proactive work orientation are self-efficacious (Somech & Drach-Zahavy, 2000) and resilient (Mallak, 1998) and, therefore, protected from the adverse effects of a demanding job environment. Unexpectedly, seeking resources was unrelated to exhaustion. A possible interpretation might have to do with the content of the scale (i.e., type of job resources). Although our scale refers to seeking of job resources in general (e.g., seeking learning opportunities), most of the items refer to social resources (e.g., initiating contact with others in order to obtain advice, feedback etc.). Perhaps employee levels of exhaustion cannot be managed via seeking of social resources. Seeking social resources and interactions at work can often be enacted in unconstructive ways, especially by employees who are already exhausted (Buunk, Schaufeli, & Ybema, 1994; Schaufeli, van Dierendonck, & van Gorp, 1996). Therefore, seeking resources is not always an adequate strategy to prevent future exhaustion or to appropriately address current levels of exhaustion.



It should be noted that in our study seeking challenges (i.e., an intraindividual strategy of setting personal challenges) was more effective for the prevention of exhaustion than seeking resources (i.e., an interpersonal strategy of receiving information or support). A possible interpretation is that in order to survive within the demanding context of organizational change an employee needs to experience the feeling that he or she is efficacious and able to respond to the demands of the change. This is perhaps a feeling that an employee develops more efficiently via an active approach of trial and error and direct confrontation of the challenges rather than reliance to others. If the seeking of social support functions as ventilation of one's feelings rather than stimulation of problem-focused strategies, it should not be expected to address efficiently feelings of distress (Carver, Scheier, & Weintraub, 1989).

Employees who attempted to reduce their demands, reported higher exhaustion, a state which, in its turn, was related to enhanced use of the decreasing demands strategy. This means that exhaustion and decreasing demands are reciprocal over time and strengthen each other. Although one would expect that reducing demands is a successful strategy to reduce exhaustion our findings show the opposite. This is in line with literature that describes vicious cycles in which burned out employees can be entrapped (Singh, Goolsby, & Rhoads, 1994). Exhausted employees are drained and put less effort in their tasks (Banks, Whelpley, Oh, & Shin, 2012; Swider & Zimmerman, 2010). By doing that, they increase their workload and time pressure (van Eerde, 2000), which intensifies their feelings of exhaustion. It is, therefore, reasonable that exhausted employees in our sample also reported low task performance.

Taken together, our findings reveal that while impact of organizational changes is connected with employee exhaustion (via reducing demands), willingness to change is connected with high task performance (via seeking resources) and possibly with diminished exhaustion via seeking challenges. It seems, therefore, that within a changing organization, the employees who adjust the most are those who seek job resources and job challenges and who do not reduce their job demands. If we view organizational change as a demand that employees have to deal with, it seems that approach rather than avoidance behaviors are more beneficial for employees. Indeed, literature about coping suggests that avoidance (rather than approach) coping is helpful only on the short-term and only when the situation is uncontrollable (Roth & Cohen, 1986). In a longitudinal research

comprising relatively controllable organizational changes, like the one we conducted, it is not surprising that reducing demands was not a beneficial behavior. The implication for those organizations today that face controllable and not overwhelming changes would be that it is more helpful for employees to engage in approach behaviors (e.g., seeking resources and challenges) than avoidance behaviors (e.g., reducing demands).

### 5.7.1 Contributions and limitations

The present study contributes to the novel research area job crafting by examining its role within the organizational change context. Job crafting is addressed as a multidimensional strategy initiated by employees to deal with organizational change with both favorable and unfavorable implications for their adjustment. Our study, thus, emphasizes the active role of the employee within organizational change. Based on their motivational orientation and their understanding of their changing situation, employees engage in job crafting behaviors sometimes with positive and sometimes with negative implications for their levels of performance as well as health. Therefore, job crafting emerges as an additional and meaningful employee behavior with the potential to explain variation not only in employee task performance, but also exhaustion, one of the most common costs of organizational change in terms of occupational health.

Our research is not without limitations. First, data relied exclusively on self-reports and in the behavioral sciences this is normally associated with common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Second, our study was based on a single occupation (i.e., police officers), which limits the generalizability of the findings to other working populations. Third, our two-wave design does not enable us to fully address mediating relationships because that would entail a three-wave design whereby every variable of the relationship is measured within a different wave. Although two-wave datasets can be used to provide evidence for potential mediation processes, they are less trustworthy than three-wave data and they result in underestimation of the effects (Taris & Kompier, 2006). Finally, our drop-outs were younger in age, worked less years for the organization and worked mainly out of the office. It is likely that employees with less work experience, higher physical and emotional demands (i.e., because of working in the street) and, therefore, with more chances to experience exhaustion are under-represented in our sample. In that case, we have perhaps missed important information on the factors that predict employee exhaustion.

### 5.7.2 Implications for future research and practice

Our conceptualization of job crafting assumes that employees interfere with their job demands, their job challenges and their job resources and exert an influence on objective aspects of their work environment. Future research, could measure specific job characteristics that are potentially altered by employees and act as mediators between job crafting behaviors and employee adjustment. In order to test mediation effects, however, more time waves should be employed so that every variable of the mediated relationships is measured by a different time wave. Furthermore, future research should address more aspects of organizational changes which may potentially influence employee job crafting behaviors (e.g., different types or developmental phases of organizational change). There is unfortunately a lack of applicable scales for this purpose. Therefore, additional psychometric research should develop measures addressing different dimensions of the impact of changes (for example, the impact on different aspects of the working life of employees) and different types of organizational changes, which, because of their distinct nature may encourage different job crafting behaviors. Finally, our findings reveal that aspects of organizational change (i.e., impact of changes and willingness to change) may trigger two different employee reactions. The first includes a positive approach to change (i.e., seeking resources and seeking challenges) and the second includes a negative approach to change (i.e., demands reducing). Future research could examine how these two strategies relate to each other (e.g., how they develop over time) and which factors define which one of the two will prevail.

From a practical point of view, our results emphasize the role of job crafting behavior for employees and also managers who manage organizational change in their organizations. Seeking resources and seeking challenges seem to be positive ways in which employees deal with non-threatening and appealing organizational changes. Both of these job crafting behaviors should be enabled or actively stimulated by managers via coaching or individual training and development plans. For example, by encouraging employees to seek resources, managers empower them in the fulfillment of their core tasks. By enhancing their resilience, self-efficacy and personal resources, they facilitate them to engage in seeking challenges, a behavior which protects them from adverse health effects of their job demands. Unavoidably, organizational changes of high impact may sometimes encourage employees to decrease their job demands. That could, however,

be an unsuccessful way to deal with their workload and potentially increase their exhaustion. Consequently, these feelings of exhaustion discourage employees from displaying other forms of constructive job crafting and enable decreasing demands behaviors to become chronic. If managers are aware of such vicious cycles where employees often find themselves entrapped during organizational change, they could prevent their occurrence early. One way to achieve this would be to encourage employees to replace decreasing demands with other more constructive ways of managing their job demands, which do not entail avoiding or delaying tasks. In any case, a supportive leadership style combined with clear organizational communication around the changes will increase employee willingness to change and will diminish their insecurity or perceived impact of the changes. Therefore, employees will be able to display those constructive job crafting behaviors that foster employee health and performance turning organizational change into a successful transformational experience.



# 6

## Crafting the Change: The Role of Employee Job Crafting Behaviors for Successful Organizational Change

**Based on the manuscript:**

Petrou, P., Demerouti, E., & Schaufeli, W.B., (2013). Crafting the change: The role of employee job crafting behaviors for successful organizational change. *Revise & Resubmit Status*.

## 6.1 Introduction

In today's rapidly transforming industrial environment, organizations constantly have to adapt to changes in order to survive. To achieve that, more than ever before, they have to rely on their employees (Van Dam, Oreg, & Schyns, 2008). Because managers today do not only ask employees to adapt to change but also to introduce changes themselves (Grant & Parker, 2009), the role of employee actions in successful adaptation to organizational change becomes critical. Following job re-design approaches to the work environment (Grant & Parker, 2009) and perspectives on an increasingly flexible type of employee work performance (Griffin, Neal, & Parker, 2007), we address job crafting as an employee tool during organizational change. In other words, we propose that via self-initiated voluntary behaviors, job crafters proactively balance the demanding and the resourceful aspects of their jobs (Tims, Bakker, & Derks, 2012) in order to deal with organizational change.

The first aim of our paper is to examine the conditions that have the potential to stimulate job crafting behaviors during organizational change. Employees craft their jobs to restore their motivation when they perceive misfit between their needs and their job environment (Tims & Bakker, 2010). In an often unsettling situation like organizational change, organizational communication around the changes is what motivates and helps employees embrace change (Gagné, Koestner, & Zuckerman, 2000). On basis of regulatory focus theory (Higgins, 1997; 1998), however, it is proposed that when change communication does not match the preferences of employees, change initiatives will only be of limited success (Taylor-Bianco & Schermerhorn, 2006). Therefore, to address the conditions that stimulate job crafting during organizational change we focus on the interplay between the changing job environment (i.e., How does an organization communicate changes to employees?) and employee needs or preferences (i.e., Does organizational communication style match with the preferences of the employees?).

The second aim of our paper is to examine the implications of job crafting behaviors for employee motivation and performance during organizational change. Adapting to change successfully means that employees do not only perform adequately their new tasks but also that they remain engaged at their work (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). Therefore, we will focus on employee work engagement

and adaptivity, as two potential outcomes of job crafting in organizational change context.

We address our aims via two studies. Study 1, a survey among police officers who undergo organizational change, includes three measurements, namely, before, during and after the changes. Study 2 zooms in the change process and employs three weekly measurements among employees of different occupations undergoing changes. We examine two aspects of organizational change communication: i) Study 1 focuses on quality of organizational change communication (i.e., Are timely, useful, and adequate information about the changes available?) and ii) Study 2 focuses on regulatory framing of change communication (i.e., Does framing of change communication fit employee motivational orientation?). In addition, Study 1 examines employee work engagement and adaptivity as potential implications of job crafting.

## **6.2 Job crafting and organizational change**

### **6.2.1 Conceptualizing job crafting**

Job crafting (Wrzesniewski & Dutton, 2001) are actions employees take so as to alter the task boundaries of a job (i.e., type or number of activities), the cognitive task boundaries of a job (i.e., how one sees the job) and the relational boundaries of a job (i.e., whom one interacts with at work). In this sense, for example, a hospital cleaner who steps out of his formal job boundaries and develops interactions with patients is a job crafter (Wrzesniewski & Dutton, 2001). For the purpose of the present paper, we follow previous research (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims et al., 2012) approaching job crafting on the basis of the Job Demands-Resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), that distinguishes job characteristics in job demands and job resources. We, thus, refer to job crafting as voluntary self-initiated employee behaviors targeted to seeking resources (i.e., asking manager or colleagues for advice), seeking challenges (i.e., asking more responsibilities) and reducing demands (i.e., eliminating emotionally, mentally or physically demanding job aspects). Using this conceptualization, Petrou, Demerouti, Peeters et al. (2012) showed that job crafting is displayed daily by employees during organizational change. In their study, on days that employees sought challenges they were more engaged in their work while on days that they reduced demands more they were less engaged.



### 6.2.2 Regulatory focus theory and job crafting

Most job crafting conceptualizations imply that employees craft their jobs because they lack something (e.g., meaning) or because of misfit with their job environment (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Applied to organizational change context, this could mean that employees craft their jobs when the change environment lacks the motivating aspects necessary for change acceptance. But do all employees seek the same motivational aspects in a changing environment? We expect that the interplay between organizational context and individual differences in terms of motivational orientation will influence employee reactions to organizational change initiatives, including job crafting and, consequently, adaptivity. In the present paper we use regulatory focus theory (Higgins, 1997; 1998) to provide the theoretical grounds for the empirical test of this link. This theory is suitable for our aim because it implies that distinct ways in which a situation is communicated to individuals have different implications for their motivation and goal-oriented behavior.

Regulatory focus theory (Higgins, 1997; 1998) distinguishes between two self-regulatory systems: Promotion focused individuals are motivated by their wishes, hopes, and aspirations and frame goals in terms of “gains” or “non-gains”. In contrast, prevention focused individuals are motivated by their duties, obligations, and need for security and frame goals in terms of “losses” or “non-losses”. Being motivated to approach gains rather than avoid failure, promotion focused employees are more likely than prevention focused employees to introduce changes to their jobs (Tims & Bakker, 2010). In other words, because promotion focused employees strive to reach their ideals rather than comply with existing tasks and obligations (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008), they are likely to implement changes that will bring them closer to their desired situation. Job crafting is, thus, more compatible with the notion of promotion than with the notion of prevention.

Although there is scarce evidence on the link between job crafting and regulatory focus, previous research is in line with this expectation. For instance, promotion focused individuals have been shown to take risks and be open to change, whereas prevention focused individuals prefer stability (Lieberman, Idson, Camacho & Higgins, 1999). Promotion focus has also been found to relate positively to creativity and innovation (Friedman & Förster, 2001; Rietzschel, 2011), extraversion, learning orientation,

and organizational citizenship behaviors (Gorman, Meriac, Overstreet, Apodaca, McIntyre, Park, & Godbey, 2012). It is, thus, plausible to expect that promotion rather than prevention focused employees craft their jobs. Hence:

**Hypothesis 1:** Employee promotion focus is positively related to job crafting.

### 6.2.3 Promotion versus prevention focus and organizational change communication

Although job crafting is a natural behavior more for promotion than for prevention focused employees, we expect that under certain occasions, prevention focused employees can also be job crafters. The underpinnings of this expectation can be found within the premises of regulatory focus theory.

Regulatory focus is not only an individual characteristic. Environments or tasks may also activate a promotion or prevention focus through the cues of language, feedback or other communication cues (Brockner & Higgins, 2001). When the goals and outcomes that individuals pursue are framed in a way that fits with their regulatory focus, regulatory fit occurs and positive outcomes are likely to arise for individuals in terms of motivation and performance (Lee & Aaker, 2004). In other words, the communication that is provided by the environment to individuals and the regulatory cues of this communication will shape the motivation of individuals (Stam, van Knippenberg, & Wisse, 2010). For the aims of the present paper, we focus on organizational change communication that we define as the communication enacted by organizations around organizational change initiatives that they implement.

Being security oriented, individuals with a prevention focus are convinced by information that is communicated at a concrete level, whereas promotion focused individuals are convinced by information that is communicated at an abstract level (Lee, Keller, & Sternthal, 2010). Therefore, it seems that the quality of organizational change communication (e.g., useful, timely and adequate information) should be more helpful and necessary for prevention focused employees because it eliminates insecurity during organizational change (Bordia, Hobman, Jones, Gallois, & Callan, 2004). When this sort of communication is lacking, prevention focused employees are

likely to engage in proactive actions that reduce uncertainty (Morrison, 2002) or other self-initiated behaviors, such as job crafting, that will help them deal with the uncertain situation. This intention to “restore” is particularly important if we want to understand why prevention focused employees will craft a job. For example, research has shown that prevention focused individuals are often ready to engage in actions not typically associated with their preferences, such as seeking role models (Zhang, Higgins, & Chen, 2011) or being more creative than they normally are (Baas, De Dreu, & Nijstad, 2011), when these actions have the potential to restore the status quo in terms of safety (Scholer, Zou, Fujita, Stroessner, & Higgins, 2010). Therefore, an organizational change context could stimulate prevention focused employees to craft their job when it does not satisfy their need for security.

The three job crafting behaviors that we examine can form distinct strategies enacted by prevention focused employees to deal with organizational change. For instance, by accumulating job resources, such as advice or support from colleagues or the manager, prevention focused employees make sense of the change and reduce feelings of uncertainty. Via seeking new job challenges they familiarize with the change, they feel more efficacious and they exert autonomous control over the change when the communication style of their manager does not meet their need for security. Finally, they reduce job demands which are competing to the demands of the change as a means to have more space and time to approach and assimilate the new situation. We, thus, formulate:

**Hypothesis 2:** The relationship between employee prevention focus and job crafting is positive for low quality of perceived organizational change communication.

#### **6.2.4 Implications of job crafting during organizational change**

Because managers today do not only ask employees to adapt to change but also to introduce changes by themselves (Grant & Parker, 2009), job crafting can be a useful tool in times of change. Job crafting is a proactive behavior enacted by employees to adapt to an uncertain and rapidly transforming work environment (Kira, van Eijnatten, & Balkin, 2010). In situations of high uncertainty, as in organizational change, self-initiated employee behaviors enable new work roles to emerge and, thus, help employees to adapt (Griffin et al., 2007). In other words, by balancing the demanding and the

resourceful aspects of their jobs, job crafters flexibly modify or create the conditions that will help them tailor a new situation to their needs.

Successful organizational change does not only mean that employees are not resistant to change, but also that they stay engaged at their work and that they adapt to the implemented changes (van den Heuvel et al., 2010). Therefore, we focus on two employee outcomes as potential implications of job crafting behaviors, namely, work engagement and adaptivity. Work engagement is a positive, fulfilling, and work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli, Bakker, & Salanova, 2006) and is associated with proactive behaviors (Salanova & Schaufeli, 2008). Adaptivity refers to the degree to which employees cope with, respond to, and support changes that affect their roles as organization members (Griffin, et al., 2007). In order to examine implications of job crafting as a change strategy in a meaningful way, we have to focus specifically on *what employees exactly change* in their environment so to adapt to ongoing changes.

*Seeking resources.* Individuals strive to accumulate resources so as to sustain existing resources (Hobfoll, 2001). Seeking resources could involve asking colleagues or supervisor for advice, asking feedback on one's job performance, or seeking learning opportunities at work (Petrou, Demerouti, Peeters et al., 2012). By seeking job resources, employees expand their resource pool which enhances work engagement (Salanova & Schaufeli, 2008) and provides the tools to increase performance (Bakker, Demerouti, & Verbeke, 2004) because by definition resources foster the achievement of goals (Demerouti et al., 2001). Job resources are particularly helpful during organizational change because they help employees cope with change, reduce uncertainty (Robinson & Griffiths, 2005), adjust to a new situation and produce satisfaction (Terry, Callan, & Sartori, 1996). Therefore:

**Hypothesis 3:** Seeking resources is positively related to employee (i) work engagement and (ii) adaptivity.

*Seeking challenges.* Seeking challenges at work includes behaviors such as looking for new tasks once one finishes work, or taking on more responsibilities (Petrou, Demerouti, Peeters et al., 2012). Research has challenged the idea that job demands

play an exclusively dysfunctional role. For example, “challenge” stressors may enhance employee motivation via positive emotions and attitudes, (Podsakoff, LePine, & Le Pine, 2007). Taking on more responsibilities or focusing on the challenging aspects of the change improves employee work engagement (Petrou, Demerouti, Peeters et al., 2012), and facilitates employee adjustment (Amiot, Terry, Jimmieson, & Callan, 2006). This is in agreement with Bandura’s (1986) social learning theory and with incremental approaches to organizational change (e.g., Orlikowski, 1996), whereby the mastery of successively more complex challenges helps individuals adjust to a new situation. Therefore:

**Hypothesis 4:** Seeking challenges is positively related to employee (i) work engagement and (ii) adaptivity.

*Reducing demands.* Job crafting is neither inherently “good” nor “bad” for an organization, since its effect depends on the situation (Wrzesniewski & Dutton, 2001). Oldham and Hackman (2010) recommend that future research should address dysfunctional effects of job crafting. Reducing demands is a crafting strategy that may have dysfunctional implications. It includes behaviors targeted towards minimizing the emotionally, mentally, or physically demanding aspects of one’s work (Petrou, Demerouti, Peeters et al., 2012). “Task avoidance”, which is a way of reducing demands, has been viewed as a withdrawal-oriented coping response (Parker & Endler, 1996). Such responses entail a rigid and disengaging approach to a new situation and are ineffective ways to cope with organizational change (Amiot et al., 2006). Similarly, because demands may contribute to the experience of one’s job environment as challenging and motivating (Podsakoff et al., 2007), reducing job demands has been suggested as an indicator of low motivation and an unsuccessful strategy to adapt to change (Petrou, Demerouti, Peeters et al., 2012). Therefore we formulate:

**Hypothesis 5:** Reducing demands is negatively related to employee (i) work engagement and (ii) adaptivity.

## 6.3 Study 1

### 6.3.1 Methods

*Participants.* Invitations to participate in the survey were sent to 1,780 police officers working in a Dutch regional police force that underwent organizational changes including the introduction of a new ICT system, merging of departments, staff relocations and increasing professionalization via employee trainings. No respondent was made redundant during the study period. The respondents who completed the first survey at T1 (Time 1) as well as the two yearly follow-ups (T2 and T3) were 368 (response rate = 21%). On average they were 43.5 years old ( $SD = 9.84$ ), they worked in the organization for a mean of 18 years ( $SD = 11.68$ ) and 36.7% were women. Of the respondents, 35.3% worked principally in executive patrol services (out of office) and 64.7% worked principally in administrative or support positions (at the office).

*Procedure.* The survey was administered online a year before the changes were initiated (T1), during the changes (T2), and one year after the changes had been completed (T3). Participants were informed about the surveys through e-mails and meetings. Respondents were invited to participate via email and those who did not take part received an email reminder 2-3 times before every data collection was completed. Study completers were compared to drop-outs on all demographic and study variables. Compared to study completers, participants who dropped out after T1 and participants who dropped out after T2 reported organizational change communication of lower quality.

*Measures.* To reduce fatigue effects and increase participation, we decided to administer three shortened versions of the original scales.

Employee regulatory focus was measured with a shortened version of the 18-item Work Regulatory Focus scale (Neubert et al., 2008). Items with the highest factor loadings were selected based on previous research (Neubert et al., 2008; Petrou, Demerouti, & Häfner, 2012). Promotion focus was measured with 5 items (e.g., “I tend to take risks at work in order to achieve success”; Cronbach’s  $\alpha_{T1} = .82$ ;  $\alpha_{T2} = .82$ ;  $\alpha_{T3} = .82$ ). Prevention focus was measured with 5 items (e.g., “I focus my attention on avoiding failure at work”; Cronbach’s  $\alpha_{T1} = .69$ ;  $\alpha_{T2} = .70$ ;  $\alpha_{T3} = .72$ ). Items were rated on a 6-point scale ranging from 1 (= totally disagree) to 6 (= totally agree).

Quality of organizational change communication was measured with three items based on Wanberg and Banas (2000). A sample item is “The information I have received about the changes has been useful” (Cronbach’s  $\alpha_{T1} = .85$ ;  $\alpha_{T2} = .87$ ;  $\alpha_{T3} = .91$ ). Items were rated on a 6-point scale ranging from 1 (= totally disagree) to 6 (= totally agree).

Job crafting was measured with the three dimensions of general-level job crafting used by Petrou, Demerouti, Peeters et al. (2012). After excluding two items with factor loadings below .40 in the original 6-item subscale, *seeking resources* was measured with a 4-item shortened version. An example item is “I ask others for feedback on my job performance” (Cronbach’s  $\alpha_{T1} = .70$ ;  $\alpha_{T2} = .69$ ;  $\alpha_{T3} = .70$ ). *Seeking challenges* included 3 items, such as “I ask for more tasks if I finish my work” (Cronbach’s  $\alpha_{T1} = .75$ ;  $\alpha_{T2} = .77$ ;  $\alpha_{T3} = .82$ ). *Reducing demands* included 4 items, such as “I try to ensure that my work is emotionally less intense” (Cronbach’s  $\alpha_{T1} = .76$ ;  $\alpha_{T2} = .78$ ;  $\alpha_{T3} = .79$ ). Items were rated on a 5-point Likert type scale ranging from 1 (= never) to 5 (= always).

Work engagement was measured with the 9-item UWES scale (Schaufeli et al., 2006) including three subscales of three items each: vigor (e.g., “At my work, I feel bursting with energy”), dedication (e.g., “I am enthusiastic about my job”) and absorption (e.g., “I am immersed in my work”). Respondents indicated how often they experience each state using a scale ranging from 0 = never to 6 = always. An aggregate score of the three subscales was used for the analyses (Cronbach’s  $\alpha_{T1} = .95$ ;  $\alpha_{T2} = .95$ ;  $\alpha_{T3} = .95$ ), since the 1-factor solution has been shown to have acceptable goodness-of-fit (Schaufeli et al., 2006).

Adaptivity was measured with the 3-item individual task adaptivity scale by Griffin et al. (2007). Because it was assumed that in T1 task changes had not been introduced, respondents of T1 survey were asked to rate the items thinking of what they generally do (e.g., “I adapt well in core tasks”) whereas in T2 and T3 they were asked to report on behaviours thinking of the past month (e.g., “I adapted well in core tasks”; Cronbach’s  $\alpha_{T1} = .86$ ;  $\alpha_{T2} = .90$ ;  $\alpha_{T3} = .90$ ). Items were rated on a 5-point Likert type scale ranging from 1 (= never) to 5 (= always).



### 6.3.2 Analytical approach

Because the three repeated measurements (T1, T2, T3) are nested within persons (Hox, 2002) we treated our data in a multilevel approach. This approach enables us to look at the relationships between regulatory fit and job crafting *within measurements times*, but also the fluctuations of variables *across measurements times*. Because employee regulatory focus and organizational change communication can be unstable over time we do not expect the interplay between them to predict job crafting reported after one year. We rather view job crafting as a strategy enacted by employees based on their current perception of the change environment and the way it interacts with their regulatory preferences. Therefore, we did not test lagged effects.

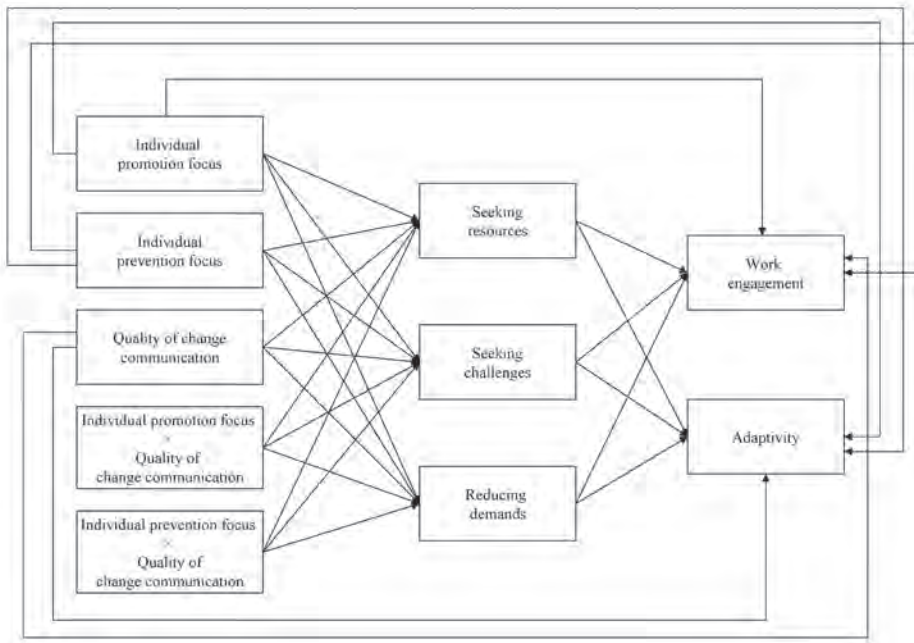


Figure 6.1. Hypothesized Model

Our two-level hierarchical structure included 1,104 occasions at the lower level and 368 participants at the higher level. Data were analyzed using Mplus (Muthén & Muthén, 2010). Multilevel Structural Equation Modeling (MSEM) was conducted to test our hypothesized model (Figure 6.1). In multilevel analysis the intraclass correlation decomposes variance in two components: variance at the lower level (within-level of



analysis) and variance at the higher level (between-level of analysis). Prior to the MSEM, intraclass correlations showed that 59% of the variance in seeking resources, 54% in seeking challenges, 50% in reducing demands, 70% in work engagement, and 37% in adaptivity are attributed to between-persons variations. Significant amounts of variance are, thus, explained both by within-person variations and between-persons variations, justifying the multilevel approach. In relation to our independent variables, the amount of variance attributed to the between-persons variation was 54% for prevention focus, 63% for promotion focus, and 56% for organizational change communication.

All variables of the model were observed. Exogenous variables included promotion focus, prevention focus, change communication and the interaction terms between promotion and communication as well as prevention and communication. Endogenous variables included the job crafting variables (i.e., seeking resources, seeking challenges, reducing demands), work engagement and adaptivity. Because of the role of time in the way organizational change unfolds (Armenakis & Bedeian, 1999), we controlled at the within-level for the effect of measurement time to the dependent variables. We also controlled for the effect of gender on the dependent variables at the between-level because the perception of job characteristics (Taris, Kompier, Geurts, Houtman, & van den Heuvel, 2010) and health outcomes (Richardsen, Burke, & Martinussen, 2006) is often different for male and female police officers. The remaining variables were specified neither as within- nor as between-level, because they were modeled at both levels. Mplus considers them by default at the within-level (Muthén & Muthén, 2010).

All the paths shown in Figure 6.1 were specified both at the between- and the within-level of analysis. Therefore, at both levels of analysis we included paths from promotion, prevention, change communication, and their interaction terms to the three job crafting variables and paths from job crafting to work engagement and adaptivity. We also included paths from promotion, prevention and change communication to engagement and adaptivity, although they did not refer to any hypotheses. The reason was because both promotion and prevention focus are distinct ways to achieve goals and succeed (Higgins, 1997; 1998), and because change communication facilitates change acceptance (Gagné et al., 2000). Similar to SEM practices (Cortina, Chen, & Dunlap, 2001) none of the interaction terms was allowed to correlate with its products. A number of variables were allowed to correlate freely with each other at both

levels: promotion with prevention, promotion and prevention with communication, the interaction terms with each other, all job crafting variables with each other and adaptivity with work engagement.

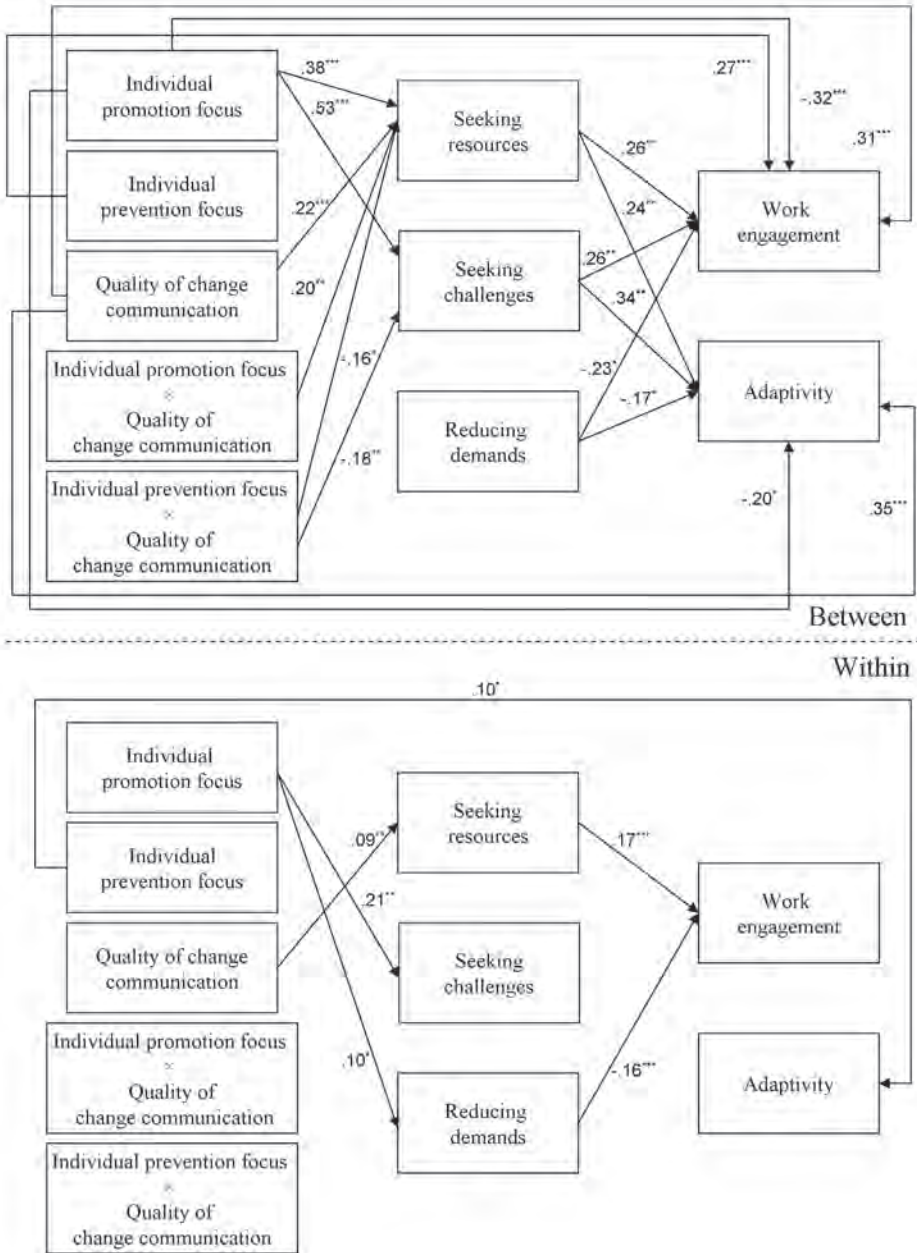
### 6.3.3 Results

*Descriptive statistics.* Table 6.1 presents means, standard deviations, and intercorrelations between study variables. All variables except gender are averaged across T1, T2 and T3.

**Table 6.1.** Means, standard deviations and correlations among the study variables

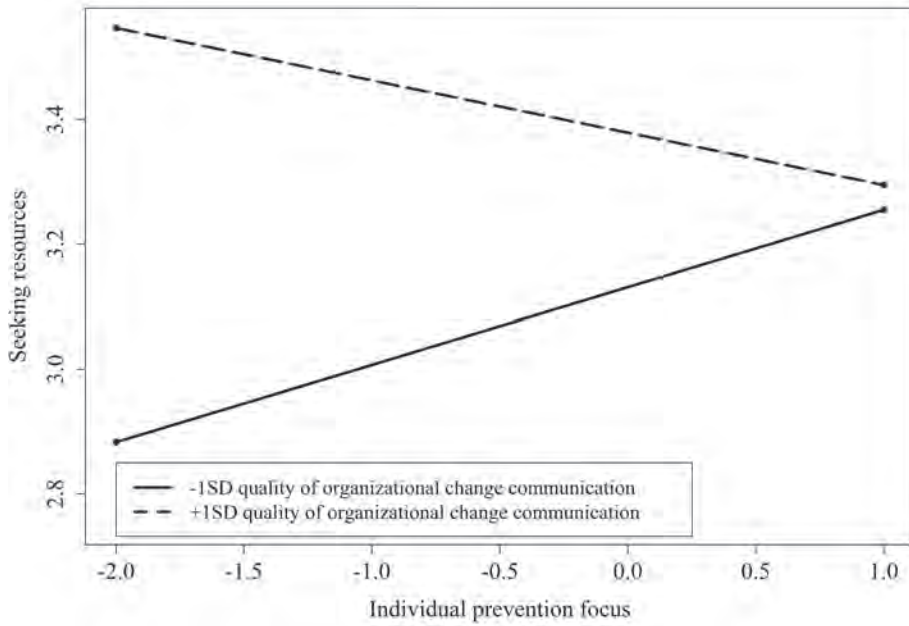
	M	SD	1	2	3	4	5	6	7	8
1. Gender	1.37	.48	-							
2. Promotion focus	3.35	.86	.01	-						
3. Prevention focus	4.22	.60	.12***	.31***	-					
4. Change communication	3.72	.94	.04	.14***	.13***	-				
5. Seeking resources	3.41	.47	.20***	.39***	.15***	.28***	-			
6. Seeking challenges	3.01	.67	.23***	.50***	.18***	.07*	.55***	-		
7. Reducing demands	2.07	.55	-.08*	.09**	.13***	-.11***	.01	.06	-	
8. Work engagement	3.89	.97	.04	.05	.23***	.37***	.35***	.22***	-.22***	-
9. Adaptivity	4.07	.53	.29***	.14***	.18***	.35***	.39***	.34***	-.16***	.40***

*Note.* Variables 2-9 are aggregated (i.e., averaged across time) per respondent; \* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

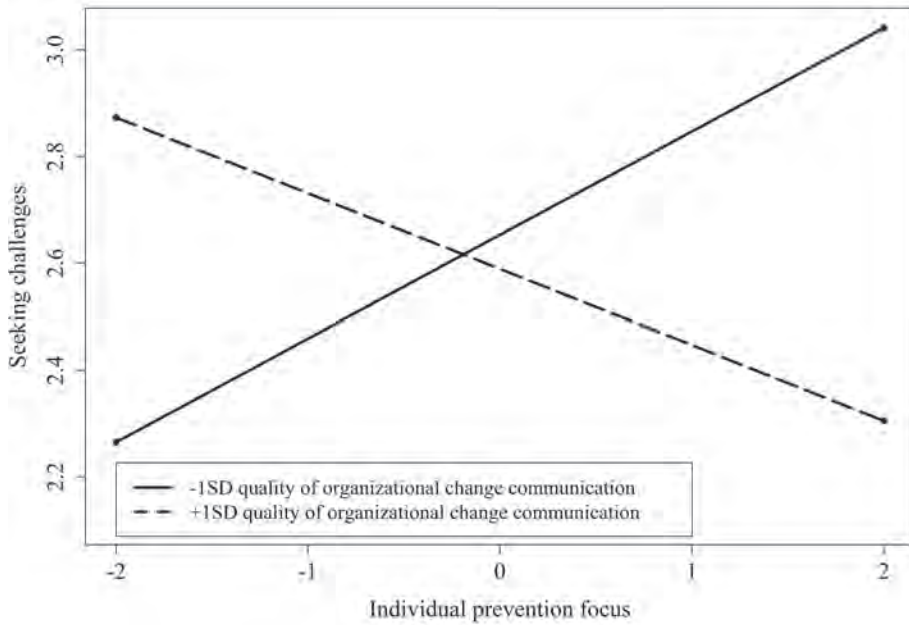


**Figure 6.2.** Tested Multilevel Structural Equation Model

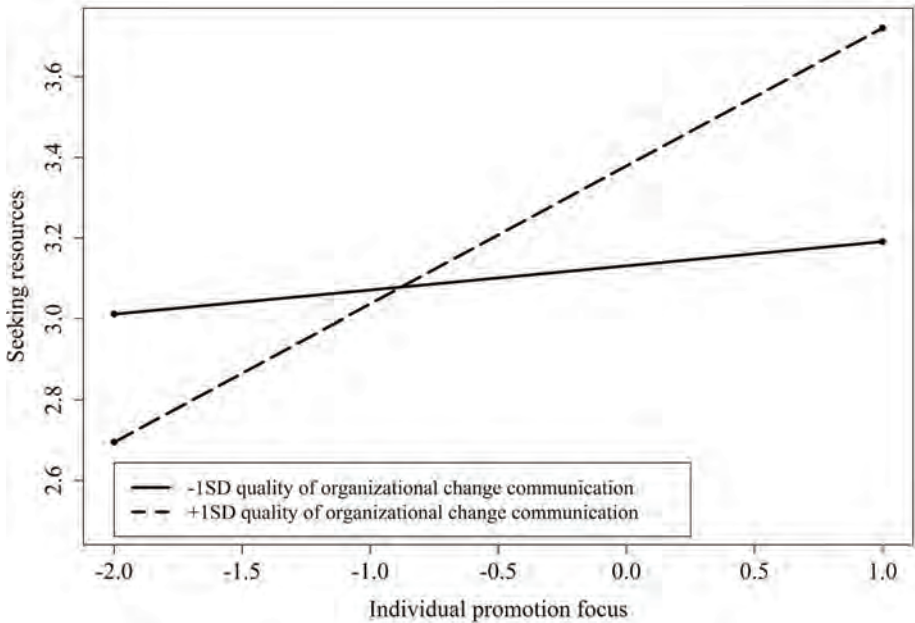
*Note.* Between refers to the between-level of analysis; within refers to the within-level of analysis;  $\chi^2 = 53.90$ ,  $df = 26$ ,  $p = .001$ , CFI = 0.98, TLI = 0.91, RMSEA = 0.03, SRMR = 0.02 (within level) and 0.05 (between level); Correlations between variables and the effects of control variables are not shown for clarity purposes; \*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$



**Figure 6.3.** The relationship between individual prevention focus and seeking resources moderated by change communication



**Figure 6.4.** The relationship between individual prevention focus and seeking challenges moderated by change communication



**Figure 6.5.** The relationship between individual promotion focus and seeking resources moderated by change communication

*Testing the hypothesized model.* The hypothesized MSEM model displayed good fit to the data,  $\chi^2 = 53.90$ ,  $df = 26$ ,  $p = .001$ , CFI = 0.98, TLI = 0.91, RMSEA = 0.03, SRMR = 0.02 (within level) and 0.05 (between level). Most significant paths were found at the between-level of analysis (Figure 6.2). Promotion focus was negatively related to work engagement ( $\gamma = -.32$ ,  $p < .001$  at the between level) and adaptivity ( $\gamma = -.20$ ,  $p < .05$  at the between level), while prevention focus was positively related to work engagement ( $\gamma = .27$ ,  $p < .001$  at the between level) and adaptivity ( $\gamma = .10$ ,  $p < .05$  at the within level). Furthermore, promotion focus was positively related to seeking resources ( $\gamma = .38$ ,  $p < .001$  at the between level), seeking challenges ( $\gamma = .53$ ,  $p < .001$  at the between level;  $\gamma = .21$ ,  $p < .01$  at the within level) and reducing demands ( $\gamma = .10$ ,  $p < .05$  at the within level), providing support to Hypothesis 1. Prevention focus was not directly associated with any type of job crafting. However, the interaction term between prevention focus and change communication was associated negatively with seeking resources ( $\gamma = -.16$ ,  $p < .05$  at the between level), and seeking challenges ( $\gamma = -.18$ ,  $p < .01$  at the between level). Simple slope analyses with asymptotic z-tests revealed that the link between prevention focus and seeking resources was significant and positive, but only when the change communication was one standard deviation

above average ( $z = 2.07, p < .05$ ; see Figure 6.3). Similarly, the link between prevention focus and seeking challenges was significant and positive, but only when the change communication was one standard deviation below average ( $z = 2.39, p < .05$ ; see Figure 6.4). Together, these two findings provide partial support to Hypothesis 2. Although we did not expect the interaction between promotion focus and communication to relate to job crafting, seeking resources was found to be positively linked to the interaction between promotion and communication ( $\gamma = .20, p < .01$  at the between level). Simple slope analysis revealed the opposite pattern from the one for prevention: the relationship between promotion focus and seeking resources was significant and positive, but only when the change communication was one standard deviation above average ( $z = 5.68, p < .001$ ; see Figure 6.5).

Seeking resources was positively related to work engagement ( $\gamma = .26, p < .01$  at the between level;  $\gamma = .17, p < .001$  at the within level) and adaptivity ( $\gamma = .24, p < .01$  at the between level), providing support to Hypothesis 3. Seeking challenges was positively related to work engagement ( $\gamma = .26, p < .01$  at the between level) and adaptivity ( $\gamma = .34, p < .01$  at the between level), providing support to Hypothesis 4. Finally, reducing demands was negatively related to engagement ( $\gamma = -.23, p < .05$  at the between level;  $\gamma = -.16, p < .001$  at the within level) and adaptivity ( $\gamma = -.17, p < .05$  at the within level), providing support to Hypothesis 5.

For clarity purposes, correlations between variables and the effects of the control variables in the model are not presented. It is worth noting, however, that time was negatively associated with seeking resources ( $\gamma = -.11, p < .001$  at the within level), work engagement ( $\gamma = -.08, p < .01$  at the within level) and adaptivity ( $\gamma = -.15, p < .001$  at the within level). Thus, respondents reported lower levels of all three constructs as they were progressing through organizational change. Furthermore, women reported higher seeking challenges, seeking resources and adaptivity than men. Men reported higher work engagement than women.

*Mediation analyses.* Hypothesis 1 assumed a link between promotion focus and job crafting. Hypotheses 3-5 assumed that job crafting is related to work engagement and adaptivity. For theoretical reasons, we added in our model paths from promotion focus to work engagement and adaptivity. As a logical extension, the links between promotion

and work engagement and between promotion and adaptivity could be mediated by job crafting. Hypothesis 2 assumed that the interaction between change communication and prevention focus relates to job crafting. Whereas job crafting relates to work engagement and adaptivity, we did not expect any effect of the interaction term on engagement or adaptivity. Instead of being a mediator, job crafting could be the linking mechanism (Mathieu & Taylor, 2006) via which the interaction is indirectly related to work engagement and adaptivity. Therefore, the interaction between communication and prevention focus could be indirectly related to engagement and adaptivity via job crafting.

We tested mediation with Bayesian mediation analysis because it addresses problems of conventional mediation methods that assume normality in the distribution of indirect effects and simplifies multilevel mediation (Yuan & MacKinnon, 2009). Between-level mediation analyses revealed that seeking resources mediated the link between promotion focus and work engagement (estimate = .112,  $p = .001$ ,  $CI_{L/U} = .011/.097$ ) and promotion focus and adaptivity (estimate = .048,  $p < .01$ ,  $CI_{L/U} = .011/.097$ ). Seeking challenges mediated the link between promotion focus and engagement (estimate = .157,  $p < .01$ ,  $CI_{L/U} = .055/.276$ ) and promotion focus and adaptivity (estimate = .094,  $p < .001$ ,  $CI_{L/U} = .035/.160$ ). The interaction term between prevention focus and communication had an indirect effect on engagement via seeking resources (estimate = -.057,  $p < .05$ ,  $CI_{L/U} = -.134/-.004$ ) and seeking challenges (estimate = -.064,  $p < .01$ ,  $CI_{L/U} = -.148/-.012$ ). The interaction term between prevention focus and communication had an indirect effect on adaptivity via seeking resources (estimate = -.023,  $p < .05$ ,  $CI_{L/U} = -.065/-.001$ ) and seeking challenges (estimate = -.039,  $p < .01$ ,  $CI_{L/U} = -.091/-.008$ ). The interaction between promotion focus and communication had an indirect effect on engagement via seeking resources (estimate = .077,  $p < .01$ ,  $CI_{L/U} = .016/.176$ ) and to adaptivity via seeking resources (estimate = .032,  $p < .01$ ,  $CI_{L/U} = .005/.083$ ). At the within-level, promotion focus was indirectly related to engagement via reducing demands (estimate = -.016,  $p < .01$ ,  $CI_{L/U} = -.033/-.004$ ).

#### 6.3.4 Discussion

The present study hypothesized that while employee promotion focus is associated with job crafting, prevention focus is associated with job crafting only when quality of organizational change communication is low. Our findings revealed a different pattern for employees of distinct regulatory orientations. On the one hand, promotion



focused employees sought challenges and decreased demands irrespective of change communication and they sought resources when quality of change communication was high. On the other hand, prevention focused employees sought resources and challenges when quality of change communication was low.

The relationships that we found between promotion focus and job crafting are in line with research linking promotion focus with extra-role and creative behaviours (Neubert et al., 2008; Wallace, Johnson, & Frazier, 2009) and with propositions that promotion focused employees tend to introduce changes to their jobs (Tims & Bakker, 2010). Although self-initiated or proactive behaviours are not typical of prevention focus, this does not mean that prevention focused employees never display such behaviours. In uncertain situations, that prevention focused people are aversive to (Lieberman et al., 1999), they may craft their job so as to cope with change in two distinct ways. First, they maximize their resources (e.g., contact with colleagues and superiors) in order to address or deal with their feelings of uncertainty. Second, by seeking challenges or new tasks, prevention focused employees adopt what has been called an incremental approach to assimilate change (Armenakis & Bedeian, 1999) whereby successful resolution of challenges produces mastery experiences (Bandura, 1986).

Especially seeking resources demonstrates the distinct role of job crafting for different regulatory orientations. Seeking resources can enhance employee motivation or help cope with job demands (Tims & Bakker, 2010). Promotion focused employees who perceive change communication of good quality experience fit and craft their jobs because they are motivated. That might result in a positive gain spiral, whereby resources lead to the accumulation of more resources (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). On the contrary, prevention focused employees who receive change communication of low quality experience misfit, which may be a cause of concern and a motivation to take action. Therefore, while seeking resources plays a primarily motivating role for promotion focused employees who are satisfied with the change communication they receive, it plays a primarily coping role for prevention focused employees who are dissatisfied with the communication they receive.

Regarding additional job crafting correlates, findings revealed positive links between two crafting dimensions (i.e., seeking resources and seeking challenges) and work



engagement as well as adaptivity. Reducing demands was negatively linked with engagement and adaptivity. These findings illustrate a positive motivational implication for seeking resources and seeking challenges, which could serve as mechanisms for successful adaptation to change. Indeed, existing empirical evidence (Petrou, Demerouti, Peeters et al., 2012) and theoretical models (van den Heuvel et al., 2010) propose job crafting as a unique tool for successful organizational change. Reducing demands, however, although theoretically useful to deal with high job demands (Tims & Bakker, 2010), does not seem to benefit employees. While avoiding demands acts as an emotion-focused coping mechanism which is largely considered unsuccessful by organizational change research (Terry & Jimmieson, 2003), an approach of actively confronting rather than avoiding the challenge helps adapt to change. That is in line with the negative link found between reducing demands and work engagement (Petrou, Demerouti, Peeters et al., 2012) and with meta-analytical evidence linking task avoidance negatively with achievement motivation and performance (Steel, 2007). These findings address recent calls for more research especially on the negative consequences of job crafting (Oldham & Hackman, 2010).

Our findings, supported by mediation analyses, imply that prevention focused employees perceiving low quality change communication adapt to change and stay engaged via seeking resources and seeking challenges. For promotion focus the picture is more complex. The negative links that we found between promotion focus and work engagement or adaptivity are not in line with what literature suggests (Moss, 2009) but not so striking in a police force, which is highly security-oriented. These negative links, though, cannot be explained only by seeking resources and challenges as mediators, because these behaviors had only positive effects on engagement and adaptivity. Perhaps they should be explained by reducing demands (which occurred as linking mechanism only at the within level) or by behaviors that we did not measure and could explain how promotion focused police officers put their performance at risk.

All paths were examined at both levels of analysis. A significant path at the within level means that at measurement times that the independent variable is high, the dependent variable is high too. At the between level, it means that if the aggregate level of the independent variable across measurement times is high, the aggregate level of the dependent variable is also high. Although we found a few significant paths at the within

level (i.e., when respondents reported high promotion focus, they reported more seeking challenges and reducing demands), most significant paths occurred at the between level. Therefore, an interpretation of the results that does not take into account the measurement time is more appropriate. For instance, when employees perceived high prevention misfit across measurement times they also reported high seeking resources and seeking challenges. A possible interpretation could be that the unsettling effects of the misfit with the change are stronger for prevention focused employees in certain occasions (i.e., during organizational change) than in other occasions (i.e., before or after the change). Similarly, prevention focused employees may engage more strongly in certain job crafting behaviors in the preparatory phases of change (e.g., seeking information) and more strongly in other job crafting behaviors during the change (e.g., confronting the change via seeking challenges). Therefore, we failed to detect the link between misfit and job crafting within every measurement time consistently but the effect appeared only when we looked at the aggregate level of the data. Following a more dynamic methodology with weekly time intervals, like the one employed in Study 2, should be a useful addition to our findings because then the aggregate level of data spans a shorter time period than three years.

## 6.4 Study 2

Based on the quality of change communication that we found in Study 1 to moderate the relationship between employee prevention focus and job crafting, we next developed this link further by addressing change communication also in terms of regulatory framing. In Study 1 we assumed that low quality change communication produces a misfit perception to prevention focused employees motivating them to craft. However, we did not examine whether change communication produces a misfit perception via its regulatory framing, as regulatory focus theory would imply (Higgins, 2005). To do that, we would need a measure focusing not simply on the overall quality of change communication but also on its content or framing. We should, thus, focus on regulatory cues within change communication that can be in accordance or disagreement with employee regulatory focus. In other words, in addition to low quality change communication, is it also the lack of prevention cues within the communication that stimulates job crafting among prevention focused employees? This question is addressed by Study 2.

#### 6.4.1 Lack of regulatory fit as a reason to craft

Although a match between individual and environmental regulatory focus is considered by regulatory focus theory to benefit both promotion and prevention focused individuals (Higgins, 2000), this is not necessarily the case in organizational change context. For example, it has been found that regulatory fit (i.e., fit between individual regulatory focus and regulatory framing of changes) is associated with adaptation to change only for prevention focused individuals (Petrou, Demerouti, & Häfner, 2012), implying that perhaps they need to be convinced in order to embrace change. Going one step further from this finding, we propose that since regulatory fit with organizational change is more important for prevention rather than for promotion focused employees, misfit could lead prevention focused employees to job crafting behaviors with an aim to “restore” the state of misfit.

This motivation to restore is particularly important if we want to understand when prevention focused employees craft their jobs. According to the implications of regulatory focus theory (Brockner & Higgins, 2001), confirmed by empirical evidence (Scholer, Stroessner, & Higgins, 2008), prevention focused individuals who perceive misfit or whose prevention goals are not addressed appropriately can become less conservative than they are normally expected to be. Specifically, because they experience agitation (i.e., a state comprising high arousal and high activation) they are able to display “activated or energetic behaviors” (Brockner & Higgins, 2001, p. 55) with an aim to restore the imbalance they experience. Therefore, we formulate:

**Hypothesis 6:** Lack of prevention (and not promotion) regulatory fit during organizational change (i.e., between employee prevention focus and prevention framing of changes by the manager as perceived by employees) is positively associated with employee job crafting.

#### 6.4.2 Methods

*Participants.* Invitations to participate in the survey were sent to 226 employees of various occupational groups working in Dutch organizations undergoing organizational changes. Respondents were invited to participate in three surveys with an interval of one week in between. Study completers (T1, T2 & T3) were 65 (response rate = 29%). On average they were 42 years old (SD =13.9), they worked in the organization for a

mean of 18 years ( $SD = 12$ ) and 67.7% were women. Of the respondents, 48% worked in the health sector, 14% in education, 11% in business administration and the rest of them indicated other sectors. Regarding the changes they were undergoing, 49% dealt with new tasks, 38.5% with new technologies, 37% with new ways to complete existing tasks, 37% with new ways of working with clients or colleagues, 20% with new services or products, 21.5% with a new manager, 29% worked at a new location and 11% worked at a flexible work-space.

*Procedure.* Research assistants recruited participants by contacting organizations in the region known for undergoing organizational changes. Surveys were administered online. Respondents were asked by e-mail to complete each questionnaire in the end of their working week by clicking on the link of the e-mail invitation. All invitations were sent every Wednesday and reminders were sent every Friday and Sunday. Drop-outs did not differ from study completers on any of the demographic or study variables.

*Measures.* Survey 1 contained information about employee regulatory focus (promotion and prevention) and the regulatory framing of organizational changes by the manager (promotion and prevention framing), as generally perceived by the respondents. Those four variables were measured once. Additionally, Survey 1 contained information about job crafting behaviors displayed by the respondents during the previous week. Surveys 2 and 3 only contained information about job crafting behaviors displayed by respondents during the previous week. Therefore, the job crafting variables (i.e., seeking resources, seeking challenges and reducing demands) were measured three times. All regulatory focus and regulatory framing items were rated on a 6-point scale ranging from 1 (= totally disagree) to 6 (= totally agree). Job crafting items were rated on a 5-point scale ranging from 1 (= never) to 5 (= always). Following previous weekly studies (Bakker & Bal, 2010), short scales were used where possible so as to avoid fatigue effects and because of length constraints set by several organizations.

Individual regulatory focus was measured again with the Work Regulatory Focus scale (Neubert et al., 2008). Promotion focus (Cronbach's  $\alpha = .69$ ) and prevention focus (Cronbach's  $\alpha = .78$ ) were measured with 5 items each.

Regulatory framing of changes by the manager as perceived by employees was measured with the questionnaire used by Petrou, Demerouti, and Häfner (2012), which was based on Neubert et al. (2008). Promotion framing was measured with the 9-item subscale (e.g., “When communicating the change to us, our manager is focusing on the way the change can help us further our professional growth”, Cronbach’s  $\alpha = .85$ ). Prevention framing was measured with the 9-item subscale (e.g., “When communicating the change to us, our manager is oriented towards preventing failure in the new tasks”, Cronbach’s  $\alpha = .79$ ).

Job crafting was measured with the day-level questionnaire by Petrou, Demerouti, Peeters et al. (2012) with the instructions adapted to refer to week instead of day-level. Seeking resources was a 3-item shortened subscale (e.g., “During the previous week, I have asked others for feedback”, Cronbach’s  $\alpha_{T1} = .72$ ;  $\alpha_{T2} = .76$ ;  $\alpha_{T3} = .72$ ). Seeking challenges was measured with the 3-item subscale (e.g., “During the previous week, I have asked for more responsibilities”, Cronbach’s  $\alpha_{T1} = .83$ ;  $\alpha_{T2} = .80$ ;  $\alpha_{T3} = .85$ ). Reducing demands was measured with the 3-item subscale (e.g., “During the previous week, I have made sure that my work is mentally less intense”, Cronbach’s  $\alpha_{T1} = .70$ ;  $\alpha_{T2} = .62$ ;  $\alpha_{T3} = .87$ ).

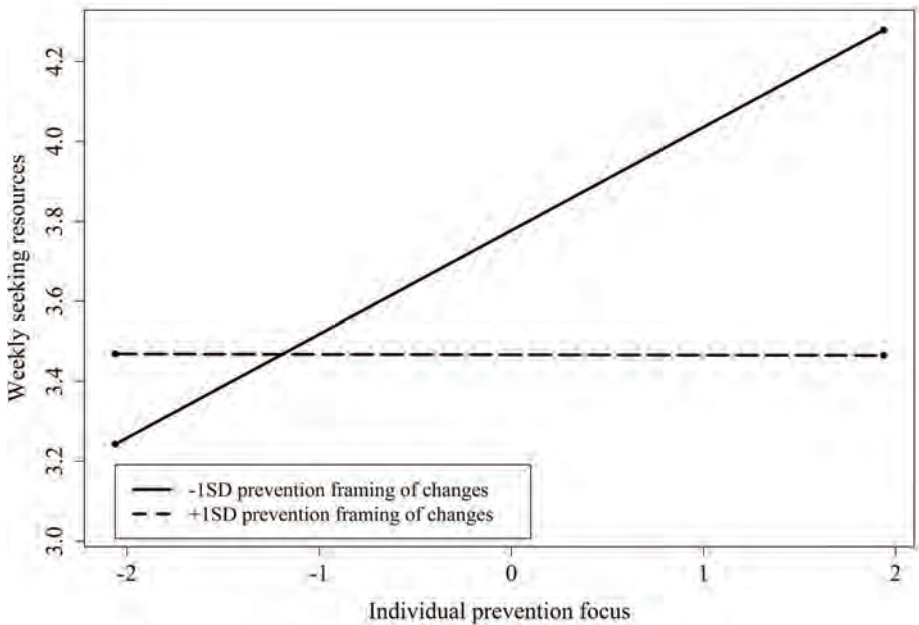
### 6.4.3 Analytical approach

For data analysis we followed again a multilevel approach with 195 occasions at the lower level nested within 65 participants at the higher level. Data were analyzed using Mplus with Multilevel Structural Equation Modeling (MSEM). Intraclass correlation showed that 66% of the variance in seeking resources, 73% in seeking challenges, and 34% in reducing demands are attributed to between-persons variations. Consequently, significant amounts of variance are left to be explained by within-person variations, justifying multilevel analysis.

All variables were observed. At between-level we specified individual promotion focus, individual prevention focus, promotion framing of changes, prevention framing of changes, the interaction term between individual promotion and promotion framing, the interaction term between individual prevention and prevention framing, age, and the dummy-coded organization type. The dummy variable compared the prevalent organization type (health sector) to all other sectors. At within-level we specified the

number of week. Seeking resources, seeking challenges and reducing demands were endogenous variables and were not specified at any level.

At the within-level, we controlled for week to account for the effect of time on job crafting. Job crafting variables were allowed to correlate with each other. At the between-level, we controlled for the effect of age on job crafting because of its effects in preliminary analyses. We also controlled for the effect of organization type on job crafting. We included paths from individual promotion, individual prevention, promotion framing, prevention framing, the interaction term between individual promotion and promotion framing and the interaction term between individual prevention and prevention framing to all three job crafting variables. The interaction terms were not allowed to correlate with their products. A number of variables were allowed to correlate with each other: individual promotion with individual prevention, promotion framing with prevention framing, the two interaction terms with each other, and all job crafting variables with each other. Furthermore, employee promotion or prevention focus has moderate positive correlations with leader promotion and prevention focus respectively (Wu, McMullen, Neubert, & Yi, 2008), implying that employees perceive sharply regulatory cues consistent to their regulatory focus. Therefore, individual promotion was allowed to correlate with promotion framing and individual prevention focus was allowed to correlate with prevention framing. Because promotion focus is more prevalent among young employees (Zacher & de Lange, 2011) we allowed individual promotion to correlate with age.



**Figure 6.6.** The relationship between individual prevention focus and weekly seeking resources moderated by prevention framing of the changes

### 6.4.4 Results

Our tested MSEM model displayed good fit to the data,  $\chi^2 = 26.06$ ,  $df = 22$ ,  $p = .25$ , CFI = 0.97, TLI = 0.90, RMSEA = 0.03, SRMR = 0.00 (within level) and 0.08 (between level). Individual promotion focus was not associated with any job crafting variable. Promotion framing of changes by the manager was positively associated with seeking resources ( $\gamma = .40$ ,  $p < .001$ ) and seeking challenges ( $\gamma = .23$ ,  $p < .05$ ). Individual prevention focus was positively associated with seeking challenges ( $\gamma = .32$ ,  $p < .01$ ) and reducing demands ( $\gamma = .66$ ,  $p < .001$ ). Prevention framing of changes was negatively associated with reducing demands ( $\gamma = -.40$ ,  $p < .01$ ). Out of the six interaction effects, the only significant one was the effect of the interaction between individual prevention and prevention framing on seeking resources ( $\gamma = -.22$ ,  $p < .05$ ). Plotting the interaction (Figure 6.6) with simple slope analysis revealed that while individual prevention focus was not associated with seeking resources when the prevention framing of the changes was one standard deviation above the mean ( $z = -.01$ ,  $p = .99$ ), it was positively associated with seeking resources when prevention framing of the changes was one standard deviation below the mean ( $z = 2.63$ ,  $p < .01$ ). Therefore, Hypothesis 6 was partially supported.



### 6.4.5 Discussion

Study 2 confirmed that a lack of fit between employee regulatory focus and regulatory framing of changes by the managers as perceived by employees is associated with seeking resources, but only in the case of prevention focus. In other words, only the incongruence between employee prevention focus and prevention framing of changes by the manager is linked to increased seeking resources. This finding is in line with Study 1, revealing that inadequate change communication motivates prevention focused employees to seek resources. However, it failed to replicate the finding that low quality change communication motivates prevention focused employees to seek challenges. One explanation could be that seeking challenges is permitted only by specific organizational contexts, which is a possibility that is missed within a heterogeneous sample. Another interpretation could be that organizational change communication that mismatches the regulatory orientation of prevention focused employees is threatening for them (Petrou, Demerouti, Peeters et al., 2012) at larger extent than simply a change communication that is considered to be of low quality by conventional standards, because it triggers more their fears of loss. More than a simply vague communication, lack of regulatory fit fails to address prevention focused individuals' values (Higgins, 2005) and fears (Baas et al., 2011) and produces negative emotions and feelings of agitation (Higgins, 2000). Therefore, it has the potential to stimulate seeking resources (e.g., support) as a way of coping but not seeking challenges, which may raise the level of already high stressors.

In addition, seeking resources (e.g., feedback and support) can be particularly important for prevention focused employees because of their tendency to rely to others for information. Although in intimate relationships promotion rather than prevention focus is associated with interpersonal sensitivity (Righetti, Finkenauer, & Rusbult, 2011), this is not always the case at work. For example, interpersonal conflicts are particularly detrimental for prevention focused employees (Brenninkmeijer, Demerouti, Le Blanc, & van Emmerik, 2010). Similarly, while prevention focused individuals tend to copy managerial behaviours in order to restore the status quo, promotion focused individuals turn more to their internal standards when the status quo is disrupted (Zhang et al., 2011). This is in line with evidence revealing a link between prevention focus and interdependent rather than independent self-construal (Lee, Aaker, & Gardner, 2000) and reliance on external data rather than internal structures (Pham & Avnet, 2004).



## 6.5 General discussion

The present paper examined employee regulatory focus as moderator in the relationship between quality and framing of organizational change communication and employee job crafting. Furthermore, we examined links of job crafting with work engagement and adaptivity. The first study revealed that employee promotion focus is positively associated with all job crafting behaviours. In addition, it is linked to seeking resources when quality of change communication is high. Prevention focus is positively linked to seeking resources and challenges when quality of change communication is low. Furthermore, seeking resources and challenges have positive links while reducing demands has negative links with work engagement and adaptivity. The second study went one step further showing that employee prevention focus is positively linked to seeking resources not only when change communication lacks quality but also when managers do not use sufficient prevention cues in their change communication.

Our findings imply that prevention focus is associated with a flexible employee approach when something in the environment has to be restored. Negative affect or problematic situations can stimulate proactive (Frese & Fey, 2001) and self-regulatory behaviours (Leone, Perugini, & Bagozzi, 2005). We propose that this is particularly true for prevention focused employees. In line with the affect-as-information model (Schwarz & Bohner, 1996), negative emotion helps to intensify efforts when people act under performance-oriented rules. Prevention focused employees are performance orientated (Gorman et al., 2012). Therefore, they are encouraged by the negative input associated with change communication of low quality or unfitting regulatory framing to intensify their efforts and restore the status quo via job crafting. By seeking resources they attempt to obtain support and information and by seeking challenges they attempt to assimilate the change or feel efficacious.

We contribute to the literature in two ways. First, using regulatory focus theory as a frame of reference, we provide a theoretical framework as well as empirical evidence for the role of employee job crafting during organizational change. Second, the examined moderating processes address prevention and not only promotion focus as an important employee orientation within organizational change. Therefore, next to the widespread belief that promotion focus facilitates change (Kark & van Dijk, 2007), more attention should be addressed to the mechanisms guiding adaptivity of security and prevention oriented employees, who need facilitation more during organizational change.

### 6.5.1 Limitations and implications for future research

Our studies used self-report which is associated with common method bias. Furthermore, analyses did not test lagged effects and causal inferences are, thus, limited. Last, our interaction effect sizes are considered small to medium according to existing standards. They are, however, equal or higher than the ones found by research on regulatory focus as a moderator between job characteristics and employee outcomes (Brenninkmeijer et al., 2010) or research on regulatory fit at work (Sue-Chan, Wood, & Latham, 2012).

Future research could expand the findings of the present studies in several ways. First, field experiments initiated before the implementation of organizational changes can manipulate promotion versus prevention cues of change communication by managers or the organization. Second, employee perceptions of manager communication style could be complemented by manager self-report on the respective concepts or objective information from organizational records. Third, multilevel designs employing large numbers of employees nested within different teams could account for variation of regulatory framing between departments. Then, adding to existing approaches to regulatory focus, regulatory framing is not only conceptualized but also measured as a team-level variable with variation between teams of different leaders or culture.

### 6.5.2 Implications for practice

Although research on job crafting and regulatory fit in the context of change is new, there is room for practical recommendations. It seems that clear and concrete change communication ensures positive employee reactions to change. However, that is particularly true for employees who are known to have a prevention approach to the achievement of work goals. Those employees seem to search more for a change communication that fits to their regulatory orientation. What does this mean for organizations in practice? It would be dangerous to suggest that the communication of an organization should follow a line with a predominant promotion or a prevention orientation. Organizational change communication could include both promotion and prevention cues as a means to avoid being biased and motivating only for one type of employees. Development plans and one-to-one coaching between managers and employees offer more opportunities for tailored communication. In this case, attending to the needs of a prevention focused employee becomes more essential and effective.

Through training, workplace interventions or empowerment, managers should encourage employees to craft their jobs as a means of autonomous adaptation to change. Although reducing demands should be managed carefully since its effects seem to be unfavorable, seeking resources and challenges are useful employee strategies in maximizing the pool of facilitators that motivate employees within the context of change. While that is true for most employees, for prevention focused employees job crafting can be additionally a way to tailor change to their needs and adapt successfully.

# Discussion

# 7

**Partly based on:**

Petrou, P., Demerouti, E., & Breevaart, K. (in press). Job crafting als sleutel tot succesvolle organisatieverandering. *Gedrag en Organisatie*.

## 7.1 Introduction

The aim of this thesis was to explore antecedents of job crafting behaviors (i.e., seeking resources, seeking challenges and reducing demands) within the context of organizational change and the impact of job crafting on employee adaptation to change. Furthermore, the fit between employee regulatory focus and aspects of the work environment (i.e., job demands, job resources and regulatory orientation) was addressed as a precondition of employee adaptation to change. It was also expected that the lack of such a fit acts as an additional predictor of job crafting behaviors enacted by employees in order to adapt better to their changing environments.

Taken together, our findings reveal that employee job crafting is predicted by contextual factors (e.g., an active job environment and organizational changes of high impact), by individual motivational orientations (e.g., employee regulatory focus and willingness to change) and also by the interplay between individual motivational orientations (i.e., employee regulatory focus) and contextual factors (i.e., organizational change communication). Furthermore, job crafting exerts both positive and negative effects on employee adaptation to change. Finally, the fit between employee prevention focus and the prevention framing of organizational change communication is positively related to employee adaptation to change. A review of these findings is presented in Figure 7.1.

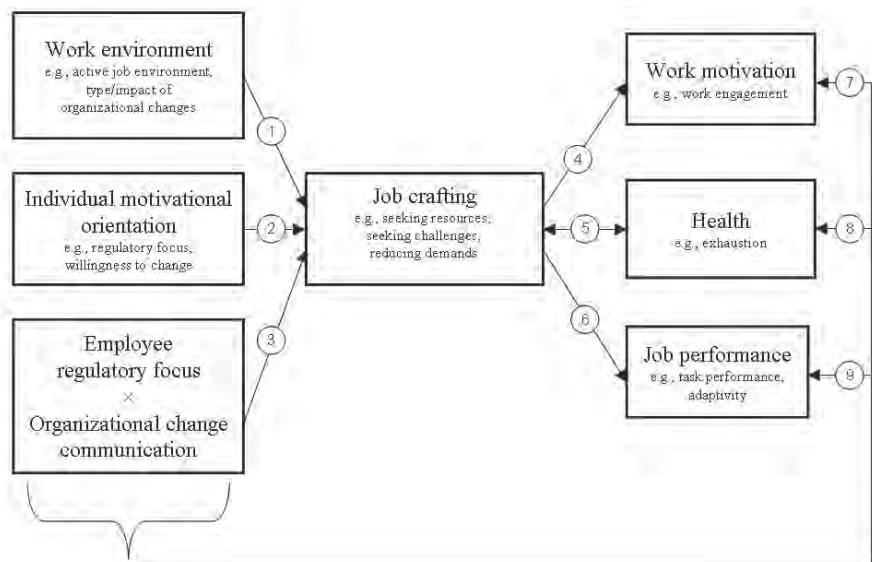


Figure 7.1 Summary of findings

In the present thesis, job crafting emerges as a multidimensional, self-initiated and voluntary strategy enacted by employees in order to adapt to their changing environment. Employees craft their jobs not only because their job environment calls for that, but also when their job environment does not satisfy or address appropriately their motivational orientation. Job crafting has mostly positive but sometimes negative implications for various aspects of employee adaptation to change, including work engagement, exhaustion and performance. These findings address the active role of the employee within organizational change and introduce job crafting as a useful employee tool in times of change within organizations.

## **7.2 Is the fit between the individual and the work environment associated with employee adaptation to change? (Question 1)**

### **7.2.1 The work environment: job demands and job resources**

Chapter 2 addressed employee promotion and prevention focus (Higgins, 1997; 1998) as a potential moderator within the relationships proposed by the Job Demands-Resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) in an organizational change context. More specifically, employee regulatory focus was tested as a moderator within the links between job demands and job resources, on the one hand, and exhaustion, disengagement and openness to change, on the other hand. Our findings revealed that certain motivating factors of the organization (e.g., employee participation in the changes and leader support) were associated with increased employee adaptation (i.e., openness to change and engagement respectively) both for employees with a strong promotion orientation and for employees with a strong prevention orientation. In other words, employees who are motivated to achieve their goals (in whatever manner they prefer) profit more from the motivating factors of their job environment than employees who are less motivated to achieve their goals. Consequently, they are more willing to embrace organizational changes and feel more engaged than employees who are less motivated to achieve their goals. These findings serve as preliminary evidence for the importance of employee regulatory focus as an attribute that may enhance employee adaptation to change. However, the findings fail to reveal distinct ways in which promotion and prevention focused employees interpret their job environment and adapt to change. This is possibly because factors such as employee participation in changes or supportive leadership are important for all

employees during organizational change. Employee participation enhances the positive view of employees towards the changes since they have provided their own input to them (Wanberg & Banas, 2000). Supportive managers also enhance employee trust and eliminate employee resistance to change (Furst, & Cable, 2008).

In order to explore the distinct ways in which employees interpret their changing environment it is not enough to focus on the content and the objective aspects of a job environment. Instead, we have to address those particular cues and stimuli within a job environment to which employees of distinct regulatory focus are particularly sensitive to (Brockner & Higgins, 2001), namely, the regulatory orientation of the job environment. Therefore, because Chapter 2 did not provide a clear answer to Question 1, Chapter 3 aimed at addressing the question by drawing on the concept of regulatory fit (Higgins, 2000; 2005).

### 7.2.2 The work environment: regulatory orientation

Regulatory focus theory implies (Higgins, 2000; 2005) that promotion and prevention focus are not only individual orientations but they are also activated by an environment, for example, via communication cues. Within any job environment employees are, thus, likely to experience fit or misfit with the regulatory orientation (promotion versus prevention) that is expressed by the communication of their group or organization. Employees who experience fit are expected to be more motivated to perform than employees who experience misfit (Stam, van Knippenberg, & Wisse, 2010). Chapter 3 addressed the fit between employee regulatory orientation and the regulatory orientation that is adopted by the organization when implemented changes are communicated to employees. Specifically, we measured the extent to which change communication addresses two distinct regulatory orientations: i) change communication with a promotion framing (e.g., it addresses how can change help individuals grow and what is there to be gained if change is embraced) and ii) change communication with a prevention framing (e.g., it addresses what obligations will employees fulfill and what losses will they prevent if they embrace change).

A fit between employee and organizational regulatory orientation (e.g., a promotion focused employee within a promotion oriented organization and a prevention focused employee within a prevention oriented organization) has been proposed as

a precondition for successful employee adaptation to organizational change (Taylor-Bianco & Schermerhorn, 2006). However, we hypothesized and found that this is true for prevention but not necessarily for promotion focused individuals. Promotion focused employees are more open to new experiences (Vaughn, Baumann, & Klemann, 2008). Because they are already motivated to concur with changes they rely less on environmental cues that have the potential to enhance their motivation towards the change. In that sense, they should normally have the potential to embrace organizational change. Prevention focused individuals, however, experience increased resistance and uncertainty when changes emerge in their environment (Lieberman, Idson, Camacho, & Higgins, 1999; Tseng & Kang, 2008). Consequently, they are more likely to use external information from their environment (Pham & Avnet, 2004; Zhang, Higgins, & Chen, 2011) that has the potential to guide their behavior in uncertain situations.

Therefore, in response to Question 1, Chapter 3 provided evidence that individual regulatory focus (i.e., prevention focus) indeed interacts with environmental regulatory orientation (i.e., prevention framing of organizational change communication) to predict employee adaptation to change (see paths 7-9 of Figure 7.1). In other words, as we expected, prevention focused employees have a greater need for and benefit more from regulatory fit (i.e., fit between individual and organizational regulatory orientation) during organizational change compared to promotion focused employees. Our findings, therefore, are in the same line with existing organizational change literature emphasizing the role of organizational communication in motivating employees to embrace change (Barrett, 2002; Wanberg & Banas, 2000). The present thesis expands this type of literature in two ways. First, we found that change communication is particularly important for prevention focused individuals, revealing that such employees are in need of facilitation during organizational change. Second, we expected and found that prevention focused individuals do not benefit simply from a change communication of good quality (e.g., comprising timely, useful and accurate information; Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004). They also benefit from a communication that addresses adequately their prevention oriented needs and values.

What happens, however, when an organization fails to address properly the regulatory orientation of employees during organizational change? And what do employees do when they experience regulatory misfit in the context of change? The present thesis



illustrates an active role for the employee within organizational change. Rather than being passive recipients, employees have the potential to craft and reshape their jobs in order to improve their environment and, consequently, ensure that they adapt adequately during changes. Employees are expected to craft their jobs not only because of their individual motivational orientations or the reasons provided by their environment, but also because their environment does not satisfy their motivational orientations. Therefore, after exploring individual motivational orientations and factors of the work environment as antecedents of job crafting (Chapters 4 & 5), we also explored the interplay between the individual and the work environment as another potential antecedent of employee job crafting (Chapter 6).

### **7.3 Do factors of the work environment (Question 2), individual factors (Question 3) and their interplay (Question 4) predict job crafting behaviors during change?**

Based on the predictions of Parker, Bindl, and Strauss' (2010) model of proactive motivation, we expected that job crafting behaviors should be explained by individual factors (e.g., willingness to change), by contextual factors (e.g., impact of organizational changes) and by the interplay between the environment and the individual. Chapters 4, 5 and 6, thus, explored such factors that have the potential to act as antecedents of job crafting behaviors in organizational change context. Our findings revealed the following relationships: First, seeking resources was positively predicted by a number of factors, namely, an active job environment (i.e., high in work pressure and job autonomy), organizational changes resulting in new clients for employees, employee willingness to change, and employee promotion focus. Seeking resources was also predicted by employee prevention focus, but only when organizational change communication was of poor quality or when it lacked a prevention framing. Second, seeking challenges was positively predicted by organizational changes involving new clients, by employee willingness to change, by employee promotion focus, and negatively by organizational changes involving new products. Seeking challenges was also positively predicted by employee prevention focus when organizational change communication was of poor quality. Third, reducing demands was positively predicted by impact of changes, by exhaustion, and by employee promotion focus and negatively by an active job environment.

Taken together, our findings confirm our expectation, namely, that different sets of factors predict employee job crafting (see paths 1-3 of Figure 7.1). More specifically, such factors included: i) contextual factors, such as an active job environment or organizational changes of high impact (Question 2), ii) individual motivational orientations, such as employee promotion focus and willingness to change (Question 3), and iii) the interplay between employee regulatory focus and contextual factors, for example, organizational change communication (Question 4). In that sense, our findings support the predictions of Parker et al.'s (2010) model of proactive motivation, namely, that proactive employee behaviour is explained by individual differences (e.g., openness to change), by contextual factors (e.g., situational demands) and by the interplay between the work environment and the individual. In order for employees to engage in proactive actions such as job crafting, situational demands calling employees to take action are necessary but not sufficient. Such reasons should be complemented with individual differences in terms of motivation. These types of motivational factors represent an internal force that provides employees with an additional reason to be proactive. For example, employees who have a promotion focus (i.e., they want to learn, grow and develop) and are willing to change (i.e., they see the value of the changes) are likely to engage in job crafting behaviors. Via such crafting behaviors they maximize the challenges of their work, accumulate job resources, and try to keep the demanding aspects of their job at an optimal level. Therefore, they are likely to grow, develop and enhance their level of functioning at work.

Organizational change is not in itself a sufficient predictor of job crafting behaviors but can serve as a useful context within which employee job crafting behaviors become particularly important. Organizational change can be viewed as an ambiguous or weak situation. A situation is weak (versus strong) when it does not in itself provide strong cues for the appropriateness of responses to it (Mischel, 1973). For example, a job with vague work procedures and job descriptions and inadequate supervision is likely to involve more weak than strong situations. In weak situations employees are likely to craft their jobs because of their job autonomy (Berg, Grant, & Johnson, 2010). Even more importantly, self-initiated employee behaviors, like job crafting, become important in weak situations because they enable new work roles to emerge and help employees adapt to a new and unknown situation (Griffin, Neal, & Parker, 2007). Actions like job crafting enable employees to adjust and tailor their work roles (Wrzesniewski &

Dutton, 2001), the demands and the resources of their jobs (Tims, Bakker, & Derks, 2012) according to their own needs. In other words, by shaping a new balance among the facilitating and the demanding aspects of their jobs, job crafters create an optimal work situation so as to deal with uncertain environments and organizational change (Kira, Balkin, & San, 2012). This is what the present thesis also revealed across various contexts involving organizational change. More specifically, when we look at the way in which motivational orientations towards the change and contextual factors during change stimulate job crafting, two notable employee strategies appear. The first includes a process of self-enhancement (i.e., seeking resources and challenges) and the second a process of self-protection (i.e., reducing demands).

### 7.3.1 Two distinct strategies of job crafting enactment during change

Chapter 4 reveals that on days that employees experienced their job as being active (i.e., high job autonomy and high workload), they engaged in increased seeking resources and decreased reducing demands. This is in agreement with the proposition that an active job enhances the learning orientation of employees and fosters an active instead of passive approach to the achievement of the work goals (Karasek & Theorell, 1990). In other words, an active and motivating job environment leads employees to grow and develop at their work and to accumulate positive and satisfying work experiences (i.e., seeking resources) rather than to enact avoidance and disengaging behaviors (i.e., reducing demands). Furthermore, organizational changes involving new clients were associated positively with seeking resources and seeking challenges, while organizational changes involving new products were negatively associated with seeking challenges. Therefore, changes with a social aspect and perhaps more appealing to employees enhance seeking resources and challenges, while changes with a more technical aspect and perhaps less appealing to employees discourage them from seeking challenges.

Chapter 5 reveals that willingness to change positively predicts seeking resources and seeking challenges, while organizational changes of high impact and employee exhaustion positively predict reducing demands. This is in line with evidence showing that when employees are open to organizational changes, they are willing to exert extra-role efforts that improve their level of functioning at work (Oreg, 2003). When, however, organizational changes are too demanding or threatening for employees, they may engage in avoidance strategies (Stensaker, Meyer, Falkenberg, & Haueng, 2002) as a form of self-protection.

Taken together, two distinct job crafting strategies emerge under organizational change. On the one hand, when employees experience increased motivation (e.g., they work in an active job environment, they face appealing organizational changes or they are willing to change) they will seek resources or they will seek challenges. This will enable them to sustain a resourceful, motivating and challenging job environment. Therefore, when organizational change is viewed by employees as a positive challenge, a positive gain spiral is likely to be initiated (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Employees are then willing to sustain the challenge and expand the pool of resources that are necessary to deal successfully with that challenge. On the other hand, when the challenging aspect of the organizational change becomes overwhelming or exhausting, employees are incapable of any form of “seeking” behaviors because that would be cognitively or emotionally demanding. In that case, they try to cope by reducing their job demands. While the first strategy resembles what is often seen as an approach employee strategy (Hirst, van Knippenberg, & Zhou, 2009) or a preference for self-enhancement (Ashford, Blatt, & Vandewalle, 2003), the second strategy resembles what is often conceived as an avoidance employee strategy or a preference for self-protection. This is consistent with two different views of organizational change that existing literature has described. Change is often seen as a motivating challenge with the potential to enhance positive employee reactions (Avey, Wernsing, & Luthans, 2008), but also as a threat, with the potential to trigger self-protection or sometimes counter-productive behaviors (Stensaker et al., 2002). In other words, depending on different individual or contextual factors, organizational change may either result in employee involvement or employee withdrawal behaviors (Oreg, Vakola, & Armenakis, 2011).

### 7.3.2 The interplay between the individual and the environment:

#### The role of prevention focus

Chapter 6 reveals that contrary to the prevalent assumption, prevention focused employees may craft their jobs when there is reason to do so. What is largely suggested by the literature is that employees who are motivated to grow and develop their self-image (Wrzesniewski & Dutton, 2001), namely, promotion focused employees (Tims & Bakker, 2010) are more likely to craft their jobs compared to prevention focused employees. This happens because promotion focused employees have a greater need to approach desired situations rather than avoid undesired situations. Consequently, they are more likely to implement the necessary changes in their jobs (i.e., job crafting) in

order to come closer to their ideal work situation or self-image. However, depending on the change communication that they receive from their organization, prevention focused employees also engage in job crafting behaviors. In other words, the interplay between employee regulatory focus and organizational change communication was an additional predictor of job crafting behaviors (see path 3 of Figure 7.1).

Prevention focused employees strive to fulfill their duties and obligations (Higgins, 1997; 1998). Therefore, it is more relevant and efficient for them if information is communicated in a clear and concrete rather than vague or abstract way (Lee, Keller, & Sternthal, 2010). In other words, prevention focused employees want to know what exactly is expected from them so that they can perform accurately and adequately. An organizational change signifies new tasks for employees. When change is communicated two things could go wrong for prevention focused employees. First, the organization may fail to provide good quality change communication (e.g., timely, adequate and useful information about the changes). Second, the manager may fail to communicate the changes to prevention focused employees in the way that they expect to hear them and they understand better (e.g., how will organizational change help employees to fulfill their responsibilities?).

Chapter 6 revealed that under these two conditions prevention focused employees are likely to engage in job crafting (i.e., seeking resources and seeking challenges). This is in agreement with the premises of regulatory focus theory. In fact, Brockner and Higgins (2001) propose that when their goals are not fulfilled or addressed properly, prevention focused individuals experience agitation, a feeling involving high arousal and activation. When this feeling is properly channeled, it results into energetic and activated behaviors enacted in order to restore the status quo (e.g., their unfulfilled goals). We propose that job crafting is such an energetic and activated behavior enacted by prevention focused employees when their needs are not addressed properly. When, for example, they do not get the information they want (i.e., what organizational change is exactly about and what are their new tasks) they will actively try to find this information themselves by seeking information from their manager or colleagues (i.e., via seeking resources). Similarly, when organizational change communication does not motivate them adequately by presenting to them clearly their new tasks, they will try to create that missing challenge for themselves (i.e., via seeking challenges).

Our findings, thus, challenge traditional views on the type of employees who are ready or resistant to embrace organizational change. Piderit (2000) calls future researchers to challenge these traditional views on resistance to organizational change, a notion that is addressed by literature in a predominantly dysfunctional and counter-productive way (e.g., Bovey & Hede, 2001; Oreg, 2003). Employees who resist change are not irrational or unreasonable. Instead, it is their values and beliefs that give rise to their resistance. In fact, resisting and facilitating change may often go hand in hand. Employees who resist change are not just an “enemy” of the change. Often they try to shape their work conditions according to their needs and in this way facilitate their adaptation to the change (Hoff & McCaffrey, 1996). In a similar vein, prevention focused employees should not be expected to act against change initiatives. When change does not seem to represent their values and address their goals, they could often be willing to facilitate their adaptation via job crafting behaviors.

Examined together, Chapters 4, 5 and 6 provide considerable evidence around potential antecedents of job crafting behaviors. Job crafting is likely to be triggered by environmental factors, such as an active job or impact of changes (Question 2), individual motivational orientations, such as willingness to change and regulatory focus (Question 3) and the interplay between employee regulatory focus and organizational change communication (Question 4).

#### **7.4 Do employee job crafting behaviours facilitate adaptation to organizational change and does adaptation to change lead to further job crafting? (Question 5)**

Chapters 4, 5 and 6 show that job crafting does exert both favourable and unfavourable effects on various indicators of employee adaptation to organizational change (Question 5). Taken together, our findings (see paths 7-9 of Figure 7.1) revealed the following relationships: Seeking resources had a positive effect on task performance, work engagement and adaptivity. Seeking challenges had a positive effect on work engagement and adaptivity and a negative effect on exhaustion. Reducing demands had a negative effect on work engagement and adaptivity and a positive effect on exhaustion. Furthermore, exhausted employees crafted their jobs further by reducing their demands, revealing a reciprocal link between reducing demands and exhaustion.

Unlike reducing demands behaviors that seem to be dysfunctional, seeking resources and seeking challenges have positive implications for employee motivation, health and performance during organizational change. When job crafting does not take the form of avoidance (i.e., reducing demands), it emerges in the present thesis as an effective and successful self-help tool used by employees in order to deal with organizational change. Employees who seek resources and challenges are not only engaged at their work. In addition, they perform adequately their core-tasks and the new tasks introduced by the change and they stay healthy throughout organizational changes. In other words, while approach behaviors (i.e., seeking resources and seeking challenges) generally benefit employees, avoidance behaviors (i.e., reducing demands) do not help employees who are dealing with organizational change.

#### 7.4.1 Seeking resources

Employees who engaged in seeking resources throughout our studies seemed to be more engaged at their work and to display increased task performance and adaptivity. This is because seeking job resources (i.e., advice, support or information) is a way to sustain or expand the current pool of one's job resources (Bakker & Demerouti, 2007). By expanding their resources employees gain access to the facilitators and the tools they need in order to function adequately at their workplace (Tims et al., 2012). In other words, the accumulated job resources will enable employees to perform adequately the core tasks of their jobs (Bakker, van Emmerik, & van Riet, 2008) and to stay engaged at their work (Schaufeli & Bakker, 2004). In addition, seeking resources has the potential to increase employees' level of functioning when new challenges arise at work (i.e., organizational change). For example, by seeking contact with others (i.e., colleagues or manager), employees receive emotional support and they increase the feeling of being protected by a strong social network during the challenging times of organizational change. Furthermore, when employees actively seek information or advice from others regarding the implemented changes, they reduce their feelings of uncertainty (Morrison, 2002). Therefore, because the changes seem less vague or threatening, employees are more motivated to embrace them and to perform what is needed in order to adapt to them.



### 7.4.2 Seeking challenges

Although one would expect that during organizational change, which is a challenge by itself, employees would not benefit from seeking further challenges, our results show quite the opposite. Employees who sought challenges throughout organizational changes were more engaged, not exhausted and adapted to the changes better. It seems, therefore, that by seeking challenges, employees adopt an active learning approach towards their work goals. In this way they increase their enactive mastery (i.e., learning by doing; Karasek & Theorell, 1990) and they accumulate challenging job demands that enhance their engagement (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). It is also possible that via seeking challenges, employees build a favorable self-image. In other words, employees who engage in this active approach of seeking challenges are likely to develop their self-efficacy. That should protect them from feelings of incompetence that often threaten employee well-being during organizational change (Terry & Jimmieson, 2003). Finally, by seeking challenges, employees keep themselves alert, sharp, and ready to deal with future and more complex challenges (Armenakis & Bedeian, 1999). In that way, they prepare themselves and when organizational changes arise they are able to face them and adapt to them.

### 7.4.3 Reducing demands

Employees who actively reduced their job demands throughout our studies overall failed to display an adequate level of functioning. They were exhausted, less engaged and did not adapt to the changes. When organizational change is too demanding, employees may try to cope by managing their workload. If job demands, however, are the tasks that have to be completed, how could employees reduce them without disregarding their workload and, at some extent, decreasing their effort and performance? Workload is an aspect that makes a job challenging, motivating and fulfilling (Karasek & Theorell, 1990; Prieto, Soria, Martinez, & Schaufeli, 2008), therefore, employees who try to reduce it actually damage the triggers of their own work engagement. Furthermore, tasks that are avoided do not of course disappear. Instead, they accumulate and become more demanding and pressing (van Eerde, 2000). Therefore, they exhaust employees and hinder them from adapting successfully. In that sense, not only do exhausted employees reduce their demands (Chapter 5), but reducing demands further increases employee exhaustion. That suggests a vicious cycle (Singh, Goolsby, & Rhoads, 1994) and a reciprocal link between reducing demands and exhaustion (see path 5 of Figure 7.1).



#### 7.4.4 Effects of job crafting: the overall pattern

Job crafting behaviors can be enacted by different types of employees and for different purposes. Therefore, it is not possible to generalize as to whether and how they benefit all employees. For example, consider a promotion focused employee who is generally open towards change and motivated to embrace the implemented changes within her organization. In that case, she will seek resources (e.g., contact with colleagues or the manager) as a means to sustain and expand her pool of resources, keep her motivation at high levels, and act on her intentions to perform well under the new challenge of the changes. A prevention focused employee, however, is more sceptical about new challenges. He feels uncertain and insecure and tries to understand what exactly is expected from him in the face of the implemented organizational changes. In that case he will try to seek resources as a means to improve a situation that he generally considers threatening or demanding. Furthermore, he will try to facilitate his adaptation to the new emerging tasks (i.e., organizational changes) that he is normally not ready to embrace in a comfortable way. Therefore, while for promotion focused employees seeking resources may play a motivating role of *sustaining*, for prevention focused employees it may play a role of *restoring* and sometimes coping.

There is, however, an agreement among the chapters of this thesis as to the fact that employees who enact approach behaviors (i.e., seeking resources and seeking challenges) generally benefit themselves more compared to employees who enact avoidance behaviors (i.e., reducing demands). This is in line with what literature on coping with organizational change largely suggests (e.g., Terry & Jimmieson, 2003; Amiot, Terry, Jimmieson, & Callan, 2006). While approach employee behaviors facilitate employees to function better and adapt to the demands of their environments, avoidance behaviors are only helpful in the short term and when the situation is uncontrollable (Roth & Cohen, 1986). Therefore, it seems that within contemporary organizations that face controllable changes without detrimental consequences, it is more useful for employees to enact approach strategies (i.e., seeking resources and seeking challenges) than avoidance strategies (i.e., reducing demands).

## 7.5 Contributions, strengths and weaknesses

The present thesis expands literature on proactive employee behaviors by addressing job crafting as a useful strategy that helps employees adapt to organizational change. It reveals the factors that stimulate job crafting behaviors and sheds light to the potential of such behaviors to facilitate or sometimes hinder employee adjustment in terms of motivation, health and performance. Therefore, when enacted appropriately, job crafting emerges as a useful self-help tool for employees who face organizational changes.

There are several methodological strengths within the studies of this thesis. First, the combination of one experiment and two survey studies gave rise to a strong and multi-method research approach in Chapter 3. Second, most of the conducted studies involved repeated measurements. Specifically, the longitudinal design of Chapter 5 enabled us to infer casual relationships between job crafting and its antecedents as well as its outcomes. The multilevel designs of Chapters 3, 4 and 6 enabled us to explore the variance in the studied variables both at the between-persons level (i.e., comparisons between individuals) and the within-persons level (i.e., comparisons within individuals over time). This methodological design generally provided evidence that many of our studied behaviors (e.g., job crafting) have both a stable component (e.g., due to individual antecedents) and a component that fluctuates over time (e.g., due to organizational changes). Third, the diary study of Chapter 4 sheds light to job crafting as a behavior displayed by employees daily at work and not as an incident occurring occasionally. Fourth, the longitudinal design of Chapter 6 employed measurements at the start, during and after the end of implemented organizational changes, thus, shedding light to all stages of an organizational change initiative. Finally, our studied samples included several occupations, for example, teachers in secondary schools (Chapter 2 & 3), police officers (Chapter 5 & 6) and heterogeneous samples of different professions (Chapter 4 & 6), thus, offering to our results generalizability and robustness.

Weaknesses of our studies should be noted as well. Besides Chapter 3, self-report was the source of all our data. Although this most likely does not threaten considerably the validity of the results, our studies could have captured more valid measurements by employing other-ratings or objective data for some of our variables. That could eliminate common-method bias and demonstrate how many of the studied variables (e.g., job

crafting or performance) are perceived by others (e.g., colleagues or managers). In a similar vein, employees reported both their own and the situational regulatory focus (i.e., the one used by their manager in his/her organizational change communication), which could be problematic. Literature suggests that although employees have their own chronic regulatory focus, they also display a “state” regulatory focus based on the regulatory focus of their leader (Kark & van Dijk, 2007). This does not exclude the possibility that the situational regulatory focus reported by employees in our studies was influenced more by their own regulatory focus rather than the one of their managers. This is reflected in the positive correlations that we found between employee and situational regulatory focus, which, however, are not so high as to raise serious concerns. Next, to our best knowledge, there are no validated measures regarding regulatory orientation of organizational change communication. The scale that we adapted and used in order to measure that concept aimed at model testing and not validation, therefore, its psychometric qualities are not tested extensively. Furthermore, in order to secure a high response rate in our repeated measurements we often used shortened versions of original scales, which can also be a threat to the psychometric value of some of our instruments. Last but not least, the concept of change was not systematically captured by our research designs. Although change-related variables were reported by employees, change could have perhaps been captured in additional ways, for example, objective data or field experiments.

## 7.6 Implications for future research

Although job crafting, regulatory focus and regulatory fit have been addressed by occupational psychology literature, there is still a lot of room for further developments. Future research, especially on organizational change, can expand our findings in several ways. First, many of the variables that we studied and refer to observable behavior could be measured via other-ratings (e.g., job crafting or job performance rated by managers or colleagues). Also, objective and record data could be used when available (e.g., workload, impact of organizational change). Second, next to the chronic employee regulatory focus, the possibility of an activated “state” regulatory focus should be addressed too. For example, instead of employees reporting on the regulatory orientation of their organization or managers, managers could report themselves the regulatory orientation that they adopt in their change communication. Also, field experiments could

manipulate the regulatory orientation of changes that are communicated to employees and test the effect that this has on the perception of employees. Third, the effects of job crafting should be examined not only on indicators of employee adaptation but also on the aspects of the job environment. For example, do employees who seek resources indeed create a more resourceful work environment?

In general, next to the focus on employee promotion orientation, future research should examine further how prevention focused employees react to organizational change. It is not sufficient to know that promotion focused employees embrace change. In addition, it is useful to examine how we can help and facilitate prevention focused employees to make the most of organizational change and realize their potential. Future research should examine further the possibility that prevention focused employees are not always resistant to change but, in fact, they can facilitate it. This thesis proposes that job crafting is one possible way to achieve that. Other ways could include cognitive strategies that help employees give meaning to the organizational changes (Van den Heuvel, Demerouti, Schreurs, Bakker, & Schaufeli, 2009) or reshape their identity (Wrzesniewski & Dutton, 2001). Finally, more research should be conducted to examine if promotion and prevention focus are parallel to approach and avoidance orientations and how does these processes unfold at work.

## **7.7 Implications for practice**

There is a clear message for management practice and employees alike arising throughout the present thesis: While seeking resources and seeking challenges should be encouraged by managers and enacted by employees in times of organizational change, reducing demands behaviors should best be avoided if possible. Via coaching, individual development plans, workplace trainings and interventions, managers who lead organizational change should allow and encourage employees to seek resources and challenges. This way they empower their employees to be autonomous and efficient and to build high levels of motivation, health and performance. An employee who feels so overwhelmed as to engage in reducing demands is probably calling for help. In that case, the manager should approach him or her in a supportive way. Instead of avoidance strategies, together they could try to focus on other ways to deal with the job challenges which are more effective both the employee and the organization. Good alternative

options could include receiving emotional support from managers and colleagues, setting challenging but attainable goals, developing and drawing on their personal resources (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010) and building a positive self-image with the help of a strong social network.

Organizational change communication that is of good quality (i.e., comprising timely, useful and accurate information) and relevant to employees (i.e., matching their regulatory orientation) benefits all employees. Within our studies that was particularly true for prevention focused employees. Communicating changes according to the regulatory focus of employees assumes that managers are aware of employee regulatory focus, which is not always the case. Although this can be achieved via questionnaires or selection procedures, it can also be a more informal process. For example, if managers become sensitive to the role and importance of regulatory focus, it should be easy for them via informal communication or coaching of their employees to find out if they predominantly want to grow and develop at their work (i.e., promotion focus) or to complete their duties and responsibilities (e.g., prevention focus).

When prevention focused employees lack the type of organizational change communication that is of good quality and that matches with their regulatory orientation, they are likely to engage in job crafting behaviors. That does not mean that managers do not need to provide good change communication to promotion focused employees. It also does not mean that they should provide poor change communication to prevention focused employees so that they craft their jobs. It serves, however, as an indication that employees who are expected to resist changes (i.e., prevention focused employees) may often try to facilitate their adaptation to change in proactive ways. Therefore, that should lead managers to view employee prevention focus and, perhaps, resistance to change, not necessarily as an obstacle to change but as a legitimate and potentially productive strategy. When prevention focused employees are granted by their managers the necessary autonomy to craft their jobs as they see fit, increased performance and positive outcomes could arise both for the employee and for the organization.

## 7.8 A final note: Job crafting as individual and organizational adaptation

In the present thesis we conceptualized job crafting as an individual strategy rather than a group or organizational process. Adaptation to organizational change, though, has been conceived both at the individual and the organizational level. Naturally, an organization adapts to change via the adaptation of the units that compose it (e.g., employees). An organization, thus, changes through the change (e.g., in motivation, identity or actions) of its employees (Dutton & Dukerich, 1991). Different approaches and models have been used to describe the way in which organizations adapt (for a review, see Zimmerman, 2011). Deterministic approaches to organizational adaptation assume that adaptation takes place in a perfect and rational way when the organization responds to the demands of the environment. Voluntaristic approaches to adaptation, however, propose that organizational adaptation is limited by the bounded rationality of individuals. In other words, the rationality of individuals is bounded because they often have a biased or incomplete perception of their surrounding environment (Dooley, 1997). Based on this perception, they will introduce the changes that they consider necessary for their adaptation. This strategy is based on their own needs and the perception of their role within the organization, rather than the role of the organization as a whole. This is the idea that characterizes job crafting too. Based on the perception of their own situation, employees introduce changes to benefit themselves, sometimes with favorable outcomes (e.g., seeking resources and seeking challenges) and sometimes with unfavorable outcomes (e.g., reducing demands). Whether these changes will benefit the adaptation of the whole organization to the new situation probably depends on whether they promote the adaptation of employees and they also serve organizational aims, goals and strategies. When job crafting strategies are enacted in a way that addresses or eliminates an employee's resistance to change (e.g., job crafting enacted by prevention focused employees), we would expect that they should comply with the interests of an organization.

Job crafting is by definition not monitored by the managers (Wrzesniewski & Dutton, 2001). What managers can do is to allow and stimulate useful and functional job crafting behaviors (i.e., seeking resources and seeking challenges). Then, they can transform job crafting from an individual strategy to a strategic advantage for the organization as a whole. This can happen not only through employees who become successful job

crafters but also via job crafting enacted by groups. In fact, literature has shown that groups of employees can craft their work collectively. This sort of collaborative job crafting often has the ability to increase collective job performance more than incidents of individual job crafting (Leana, Appelbaum, & Shevchuk, 2009). On balance, it is useful to remember that job crafting is predominantly an employee strategy. When used productively by individuals or groups, it can lead to healthy, highly performing and motivated employees or teams of workers. On the long run that should lead to flexible, adaptive and successful organizations that are more prepared to deal with today's challenging and rapidly changing job environment.

# Summary

---



Change seems to be the only constant in contemporary organizations. On a time that organizations increasingly rely on their employees in order to realize change, it becomes necessary to gain insight into strategies that help employees deal with and adjust to organizational changes. Top-down approaches to organizational change assume that change is implemented by the management and that adequate communication around the changes is the key to successful change. On basis of regulatory focus theory, however, it is proposed that change initiatives will be of limited success when organizational change communication does not fit with the motivational orientation of employees. Luckily, employees are not passive recipients, but instead they “craft” and reshape their jobs when they perceive a misfit with their job environment. Therefore, in line with bottom-up approaches to organizational change, we addressed job crafting (i.e., self-initiated and voluntary behaviors targeted at reshaping one’s job demands, job challenges and job resources) as an employee strategy to deal with organizational change. Our proposition is that job crafting is predicted by both individual motivational orientations and environmental factors within an organizational change context and it potentially facilitates employees in adapting to changes successfully.

This thesis aimed at building on this proposition (namely, that job crafting can play an important role in the context of organizational change) by exploring successively three layers that compose it: i) We tested if individual motivational orientation and the way it interacts with the changing job environment (i.e., by matching or mismatching with the environment) is associated with employee adaptation to change. ii) We tested if employee job crafting behaviors facilitate adaptation to change. iii) We tested if individual motivational orientations, contextual factors as well as a possible mismatch between the two, can lead employees to craft their job so as to adapt better to their changing environment.

### **Individual-environment fit and the link with adaptation to change**

From the basic principles of regulatory focus theory it follows that individuals have distinct ways to regulate and organize their behavior in purposeful ways. More importantly, when their environment permits and encourages individuals to enact their distinct ways of self-regulation individuals are expected to attain maximum motivation and performance. This becomes particularly important during organizational change. Specifically, regulatory focus theory distinguishes between two chronic motivational

orientations, namely, promotion and prevention regulatory focus. Promotion focused individuals are driven by their need to grow and develop, they are motivated by their “ideal selves” (i.e., wishes, hopes and aspirations) and they frame their goals in terms of “gains” or “non-gains”. Prevention focused individuals are driven by their need for safety and security and they are motivated by their “ought selves” (i.e., duties, obligations and responsibilities) and they frame their goals in terms of “losses” or “non-losses”. It has been proposed that in order to thrive within their changing organizations, employees should be provided with the factors that are consistent with their regulatory orientation. For example, the environment should address and fulfill promotion needs and values for promotion orientated employees and prevention needs and values for prevention oriented employees. This state has been referred to as “regulatory fit”.

Although regulatory fit is generally assumed to be beneficial, the present thesis hypothesized that this will be true predominantly for prevention focused employees who deal with organizational changes. Unlike promotion focused employees, prevention focused employees are resistant to change and prone to experience uncertainty and threat under unknown situations. Therefore, because they need to be “convinced” to embrace change, they are more likely to benefit from regulatory fit compared to promotion focused employees. This proposition was explored within Chapter 2 and Chapter 3. Chapter 2 served as a preliminary exploration of the interplay between the employee (i.e., regulatory focus) and the change environment (i.e., via its measured job characteristics) as a potential antecedent of employee adaptation to change. However, it failed to reveal consistently the distinct ways in which employee promotion and prevention focus function during organizational change. This was probably because organizational communication (which should be a major job characteristic that produces regulatory fit or misfit by matching or mismatching employee regulatory focus) was not measured by the reported studies. Chapter 3, however, that measured organizational change communication revealed that, indeed, regulatory fit during change is more beneficial for prevention focused individuals. Specifically, through one experiment and two survey studies, we found that prevention but not promotion focused individuals adapted to change better (i.e., they performed their tasks better and reported less exhaustion) when organizational change communication fitted with their regulatory focus.

### **Conceptualization of job crafting**

Job crafting entails reshaping the tasks or the relationships that compose a job in order to keep the job challenging, motivating and healthy. In the present thesis, we referred to job crafting as voluntary self-initiated employee behaviors targeted at seeking job resources (e.g., asking advice or support from colleagues or the manager), seeking job challenges (e.g., asking for more or new responsibilities once one is done with their job tasks) and reducing job demands (e.g., eliminating emotionally, mentally or physically demanding job aspects). We proposed that by rearranging the elements of their job according to their needs and preferences, job crafters create an optimal work situation that helps them adapt to the demands of organizational change. In order to address job crafting in the context of organizational change, we explored the factors within this context that can act as antecedents to job crafting and the effects that job crafting has on employee adaptation to change.

### **Potential antecedents of job crafting behaviors during organizational change**

Based on what is known about self-initiated and voluntary employee behaviors we expected a number of different factors to trigger job crafting behaviors during organizational change. First, employees could craft their jobs when there is a situational reason to do that (i.e., visible organizational changes of high impact on their daily work) or when they work in an active job environment that stimulates them. Furthermore, employees could craft their jobs because of their motivational orientation towards organizational changes. For example, when they are positively oriented towards the changes, they are likely to enact job crafting in the form of facilitating the change. Finally, employees may craft their jobs because of the way the environment interacts with individual factors (i.e., by not sustaining or satisfying their motivational orientation). For instance, Chapter 3 revealed that prevention focused employees are more in need of regulatory fit during organizational change compared to promotion focused employees. For that reason, we hypothesized that prevention focused employees who perceive regulatory misfit will compensate for the missing fit by crafting their job. We assumed that prevention focused employees perceive regulatory misfit when the organizational change communication that they perceive is: i. of poor quality (i.e., lacks accurate, timely and useful information) or ii. not framed in a prevention focused way (i.e., it fails to address how change helps employees to perform their duties and responsibilities). All in all, the present thesis expected that potential antecedents of

job crafting behaviors include situational factors, individual factors and the interplay of the two.

Within one diary study among employees of different occupations (Chapter 4), a two-wave longitudinal study among police officers (Chapter 5), a three-wave multilevel study among police officers and a weekly survey study among employees of different occupations (Chapter 6), we explored those three sets of antecedents to job crafting. Our findings revealed the following relationships: First, seeking resources was positively predicted by an active job environment (i.e., high in work pressure and job autonomy), by organizational changes resulting in new clients for employees, by employee willingness to change, and by employee promotion focus. It was also predicted by employee prevention focus, but only when organizational change communication was of poor quality or when it lacked a prevention framing. Second, seeking challenges was positively predicted by organizational changes involving new clients, by employee willingness to change, by employee promotion focus, and negatively by organizational changes involving new products. It was positively predicted by employee prevention focus when organizational change communication was of poor quality. Third, reducing demands was positively predicted by impact of changes, by exhaustion, and by employee promotion focus and negatively by an active job environment.

Taken together, our findings reveal that when employees experience high motivation (e.g., they work within active jobs or they are willing to change) they enact self-enhancement strategies (i.e., seeking resources and seeking challenges). When they experience uncontrollable demands (e.g., they face changes of high impact on their work or they are exhausted) they engage in self-protection or avoidance strategies (i.e., reducing demands). Notably, when organizational change communication fails to be of good quality by lacking timely, useful and clear information, prevention focused employees do not resist the change. Rather, they facilitate change by enacting self-enhancement strategies (i.e., seeking resources and seeking challenges). This is particularly important given the general assumption of the literature that prevention focus should not be associated with a willingness to change.

### **The effects of job crafting on employee adaptation to change**

A central assumption of the present thesis was that job crafting behaviors facilitate employees to deal successfully with organizational change. During new and ambiguous situations, self-initiated and voluntary behaviors, such as job crafting, are generally expected to facilitate employees because they permit new work roles to emerge. In other words, by enabling employees to adjust their environment according to their needs and preferences, behaviors like job crafting should help them adapt to the demands of a new situation. To examine this expectation, we tested the effects of job crafting behaviors on several potential indicators of employee adaptation to change. Such indicators included work engagement (i.e., a work-related state of mind characterized by vigor, dedication and absorption), task performance, adaptive performance (i.e., the extent to which employees adapted to the new tasks) and employee well-being (i.e., conceptualized as low levels of exhaustion).

Chapters 4, 5 and 6 tested the above expectations and revealed the following relationships: Seeking resources had a positive effect on task performance, work engagement and adaptivity. Seeking challenges had a positive effect on work engagement and adaptivity and a negative effect on exhaustion. Reducing demands had a negative effect on work engagement and adaptivity and a positive effect on exhaustion. Therefore, unlike reducing demands behaviors that seem to be dysfunctional, seeking resources and seeking challenges have positive implications for employee motivation, health and performance during organizational change. When job crafting does not take the form of avoidance (i.e., reducing demands), it emerges in the present thesis as an effective and successful self-help tool used by employees in order to deal with organizational change. Employees who seek resources and challenges are not only engaged at their work. In addition, they perform adequately their core-tasks and the new tasks introduced by the change and they stay healthy throughout organizational changes. In other words, while approach behaviors (i.e., seeking resources and seeking challenges) generally benefited employees, avoidance behaviors (i.e., reducing demands) did not help employees who were dealing with organizational change.

## Conclusion

The present thesis overall revealed that employee job crafting is predicted by environmental factors (e.g., an active job environment and organizational changes of high impact), by individual motivational orientations (e.g., employee regulatory focus and willingness to change) and by the interplay between individual motivational orientations (i.e., employee regulatory focus) and environmental factors (i.e., organizational change communication). Furthermore, job crafting exerted both positive and negative effects on employee adaptation to change. Job crafting emerged as a multidimensional, self-initiated and voluntary strategy enacted by employees in order to adapt to their changing environment. Employees craft their jobs not only because their job environment calls for that, but also when their job environment does not address appropriately their motivational orientation. Job crafting has mostly positive but sometimes negative potential implications for various aspects of employee adaptation to change, including work engagement, exhaustion and performance. These findings address the active role of the employee within organizational change and introduce job crafting as a useful employee tool in times of change within organizations.

Managers should stimulate employee job crafting (i.e., seeking resources and seeking challenges), while they should try to discourage reducing demands behaviors. Seeking resources and seeking challenges should be encouraged especially for prevention focused employees as they could help them overcome their resistance. Future research could explore more aspects of the organizational change context that may act as antecedents to job crafting behaviors. Finally, the effects of job crafting on aspects of the job environment should be tested because they could explain further the effect of job crafting on employee adaptation.



# Samenvatting

---



Tegenwoordig lijkt verandering het enige constante in organisaties. In deze tijd, waarin organisaties veranderingen doorvoeren en daarmee steeds meer van hun werknemers vragen, is het nodig om inzicht te krijgen in strategieën die werknemers kunnen helpen om met organisatieveranderingen om te gaan en om zich eraan aan te passen. Top-down benaderingen op organisatieverandering gaan ervan uit dat veranderingen geïmplementeerd worden door het management en dat adequate communicatie over de veranderingen de sleutel tot succes is. Op basis van de regulatory focus theorie wordt echter gesteld dat veranderingsinitiatieven weinig succesvol zullen zijn wanneer de communicatie over de organisatieverandering niet overeenkomt met de motivatie oriëntatie van de werknemers. Gelukkig zijn werknemers geen passieve ontvangers, maar “craften” en hervormen zij hun baan wanneer ze een misfit met de werkomgeving ervaren. In lijn met bottom-up benaderingen op organisatieverandering behandelen we job crafting (i.e., vrijwillige en op eigen initiatief vertoonde gedragingen die gericht zijn op het hervormen van taakeisen, werkgerelateerde uitdagingen en werkgerelateerde hulpbronnen) als een strategie die werknemers gebruiken om met organisatieverandering om te gaan. Ons voorstel is dat job crafting wordt voorspeld door zowel individuele motivatie oriëntaties als situationele factoren binnen de context van een organisatieverandering. Daarnaast stellen wij voor dat job crafting werknemers zou kunnen helpen bij het succesvol aanpassen aan organisatieverandering.

Dit proefschrift is gebaseerd op deze propositie (namelijk, dat job crafting een belangrijke rol kan spelen in de context van organisatieverandering) door de drie opeenvolgende lagen waarop het is gebaseerd, te onderzoeken: i) We hebben onderzocht of individuele motivatie oriëntatie en de manier waarop het interacteert met de veranderende werkomgeving (i.e., door het wel of niet overeenkomen met de omgeving) samenhangt met de aanpassing van werknemers aan de verandering. ii) We hebben onderzocht of job crafting gedragingen van werknemers het makkelijker maakt om zich aan te passen aan de verandering. iii) We hebben onderzocht of individuele motivatie oriëntaties, contextuele factoren en het niet overeenkomen van deze twee, ertoe kan leiden dat werknemers hun baan craften om zich beter aan te kunnen passen aan hun veranderende omgeving.

### Overeenkomst tussen het individu en de werkomgeving en de relatie met aanpassing aan organisatieverandering

Uit de basisprincipes van de regulatory focus theorie komt naar voren dat individuen verschillende manieren hebben om hun gedrag op een doelgerichte manier te reguleren en organiseren. Nog belangrijker is het dat het van individuen wordt verwacht dat ze hun maximale motivatie en prestatie behouden wanneer de omgeving ze aanmoedigt om verschillende manieren van zelfregulatie te gebruiken. Dit wordt vooral belangrijk gedurende organisatieverandering. Meer specifiek maakt de regulatory focus theorie een onderscheid tussen twee chronische motivatie oriëntaties, namelijk promotie en preventie regulatory focus. Individuen met een promotiefocus worden gedreven door hun behoefte om te groeien en zich te ontwikkelen en worden gemotiveerd door hun “ideale zelf” (i.e., wensen, en aspiraties). Bovendien kaderen zij hun doelen in termen van “winst” en “geen winst”. Individuen met een preventiefocus worden gedreven door hun behoefte aan veiligheid en zekerheid en worden gemotiveerd door hun “behoorde zelf” (i.e., taken, verplichtingen en verantwoordelijkheden). Bovendien kaderen zij hun doelen in termen van “verlies” en “geen verlies”. Het is geopperd dat werknemers voorzien zouden moeten worden in de factoren die overeenkomen met hun regulatory oriëntatie om goed mee te kunnen gaan in de organisatieverandering. De werkomgeving zou bijvoorbeeld promotie behoeften moeten vervullen voor werknemers met een promotie oriëntatie en preventie behoeften voor werknemers met een preventie oriëntatie. Deze staat wordt ook wel “regulatory fit” genoemd.

Hoewel over het algemeen wordt aangenomen dat regulatory fit voordelig is, wordt in dit proefschrift verondersteld dat dit vooral zo is voor werknemers met een preventiefocus die om moeten gaan met organisatieveranderingen. In tegenstelling tot werknemers met een promotiefocus, bieden werknemers met een preventie focus weerstand tegen verandering en zijn zij gevoelig voor het ervaren van onzekerheid in onbekende situaties. Omdat zij “overtuigd” moeten worden voordat zij verandering omarmen, is het waarschijnlijker dat zij voordeel hebben van regulatory fit vergeleken met werknemers met een promotiefocus. Deze propositie werd onderzocht in Hoofdstuk 2 en Hoofdstuk 3. Hoofdstuk 2 dient als een inleidend onderzoek van de wisselwerking tussen de werknemer (i.e., regulatory focus) en de veranderende werkcontext (i.e., via de baan karakteristieken) als een mogelijke antecedent van de aanpassing van werknemers aan de verandering. Dit kon de verschillende manieren waarop de promotie- en preven-

tiefocus van werknemers functioneren gedurende organisatieverandering echter niet consistent aantonen. Wellicht is dit te wijten aan het niet meten van communicatie over de organisatieverandering (i.e., baankarakteristieken die regulatory fit of misfit veroorzaken door een wel of niet overeenkomstige regulatory focus van de werknemer) in de beschreven onderzoeken. In Hoofdstuk 3 werd communicatie over de organisatieverandering wel gemeten en hieruit bleek dat regulatory fit gedurende organisatieverandering inderdaad voordeliger is voor individuen met een preventiefocus. Meer specifiek vonden we door middel van één experiment en twee vragenlijstonderzoeken, dat individuen met een preventiefocus, maar niet die met een promotiefocus, zich beter aanpasten aan de organisatieverandering (i.e., zij voerden hun taken beter uit en voelden zich minder vermoeid) wanneer de communicatie over de organisatieverandering overeenkwam met hun regulatory focus.

### **Conceptualisatie van job crafting**

Job crafting bevat het hervormen van de taken of de relaties waaruit een baan bestaat om op de manier de baan uitdagend, motiverend en gezond te houden. In dit proefschrift verwijzen we naar job crafting als vrijwillige, op eigen initiatief vertoonde gedragingen die gericht zijn op het zoeken van werkgerelateerde hulpbronnen (bijv., om advies of steun vragen aan collega's of de manager), het zoeken van wergelateerde uitdagingen (bijv., vragen om meer of nieuwe verantwoordelijkheden wanneer iemand klaar is met zijn/haar taken) en het verminderen van taakeisen (bijv., elimineren van emotioneel, mentaal of fysiek veeleisende aspecten van de baan). Wij hebben voorgesteld dat job crafters een optimale werksituatie creëren die hen helpt om zich aan te passen aan de eisen van de organisatieverandering, door aspecten van hun baan te organiseren naar hun behoeften en voorkeuren. Om job crafting in de context van organisatieverandering te onderzoeken, hebben wij factoren binnen deze context onderzocht die mogelijk voorafgaan aan job crafting en de effecten van job crafting op de aanpassing van werknemers aan de verandering.

### **Potentiele antecedenten van job crafting gedragingen gedurende organisatieverandering**

Op basis van wat we weten over vrijwillige en uit eigen initiatief vertoonde gedragingen, verwachtten wij dat een aantal verschillende factoren job crafting gedragingen uitlokken gedurende organisatieverandering. Ten eerste kunnen werknemers hun baan

craften vanwege een situationele reden (i.e., zichtbare organisatieveranderingen die een grote impact hebben op het dagelijkse werk) of wanneer zij in een actieve werkomgeving werken die hen stimuleert. Bovendien kunnen werknemers hun baan craften vanwege hun motivatie oriëntatie op organisatieveranderingen. Wanneer zij bijvoorbeeld positief tegenover veranderingen staan, is het waarschijnlijk dat zij aan job crafting doen om de verandering te vergemakkelijken. Ten slotte kunnen werknemers hun baan craften vanwege de manier waarop de omgeving interacteert met individuele factoren (i.e., door hun motivatie oriëntatie te behouden of te vervullen). Hoofdstuk 3 laat bijvoorbeeld zien dat werknemers met een preventiefocus meer behoefte hebben aan regulatory fit gedurende organisatieverandering dan werknemers met een promotiefocus. Om deze reden stellen wij dat werknemers met een preventiefocus hun baan zullen craften gedurende organisatieverandering wanneer ze een regulatory misfit ervaren, om zo te compenseren voor de missende fit. We hebben aangenomen dat werknemers met een preventiefocus misfit ervaren wanneer de communicatie over de organisatieverandering (i) van slechte kwaliteit is (i.e., geen accurate, tijdige en nuttige informatie bevat) of (ii) niet op een preventiefocus manier gekaderd wordt (i.e., het laat niet zien hoe verandering werknemers helpt om hun taken en verantwoordelijkheden uit te voeren). Alles bij elkaar werd in het huidige proefschrift verwacht dat contextuele factoren, individuele factoren en een combinatie van deze twee factoren mogelijke antecedenten van job crafting gedragingen zijn.

In een dagboekonderzoek onder werknemers met verschillende beroepen (Hoofdstuk 4), een longitudinaal onderzoek met twee meetmomenten onder politieagenten (Hoofdstuk 5), een multiniveau onderzoek met drie meetmomenten onder politieagenten en een wekelijks vragenlijstonderzoek onder werknemers met verschillende beroepen (Hoofdstuk 6), onderzochten we deze drie soorten antecedenten van job crafting. Onze bevindingen onthulden de volgende relaties. Ten eerste werd het zoeken van hulpbronnen op een positieve manier voorspeld door een actieve werkomgeving (i.e., hoge werkdruk en autonomie), door organisatieveranderingen die resulteerde in nieuwe cliënten, door de bereidheid van de werknemer om te veranderen en door de promotiefocus van de werknemer. Het werd ook voorspeld door de preventiefocus van werknemers, maar alleen wanneer de communicatie over de organisatieverandering van slechte kwaliteit was of wanneer het geen preventie kadering had. Ten tweede werd het zoeken van uitdagingen positief voorspeld door organisatieveranderingen waarbij

nieuwe cliënten betrokken waren, door de bereidheid van werknemers om te veranderen en de promotiefocus van werknemers en negatief door organisatieveranderingen waarbij nieuwe producten betrokken waren. Het werd ook positief voorspeld door de preventiefocus van werknemers wanneer de communicatie over de organisatieveranderingen van slechte kwaliteit was. Ten derde werd het verminderen van taakeisen positief voorspeld door de impact van de veranderingen, uitputting en de promotiefocus van werknemers en negatief door een actieve werkomgeving.

Tezamen tonen deze bevindingen aan dat werknemers self-enhancement strategieën inzetten (i.e., het zoeken van hulpbronnen en uitdagingen) wanneer zij sterk gemotiveerd zijn (bijv., wanneer zij in een actieve werkomgeving werken of bereid zijn om te veranderen). Wanneer zij oncontroleerbare eisen ervaren (bijv., wanneer zij veranderingen met een grote impact op hun werk meemaken of wanneer zij uitgeput zijn) zullen mensen met een preventiefocus zich niet tegen de verandering verzetten. Integendeel, zij vergemakkelijken de verandering door self-enhancement strategieën te gebruiken (i.e., het zoeken van hulpbronnen en uitdagingen). Dit is vooral belangrijk gegeven de algemene aanname in de literatuur dat een preventiefocus niet geassocieerd moet worden met bereidheid om te veranderen.

### **De effecten van job crafting op de aanpassing van werknemers aan verandering**

Een centrale aanname in dit proefschrift was dat job crafting gedragingen werknemers helpen om succesvol om te gaan met organisatieverandering. Tijdens nieuwe en ambigue situaties wordt verwacht dat vrijwillige en uit eigen initiatief vertoonde gedragingen, zoals job crafting, werknemers helpen omdat ze ervoor zorgen dat nieuwe werkrollen kunnen ontstaan. Met andere woorden, door toe te staan dat werknemers hun omgeving aan kunnen passen aan hun behoeften en voorkeuren, zouden gedragingen zoals job crafting hen kunnen helpen om zich aan te passen aan de eisen van nieuwe situaties. Om deze verwachting te onderzoeken hebben wij gekeken naar het effect van job crafting gedragingen op verschillende potentiële indicatoren van aanpassing aan verandering. Dergelijke indicatoren waren bevoegenheid (i.e., een werkgerelateerde staat gekarakteriseerd door vitaliteit, toewijding en absorptie), taak prestatie (i.e., de mate waarin werknemers hun kerntaken uit hebben gevoerd), adaptieve prestatie (i.e., de mate waarin werknemers zich hebben aangepast aan nieuwe taken) en werknemers welzijn (i.e., lage niveaus van uitputting).

In de Hoofdstukken 4, 5 en 6 werden de bovengenoemde verwachtingen onderzocht en de volgende relaties onthuld: het zoeken van hulpbronnen had een positief effect op bevoegtheid en aanpassingsvermogen en een negatief effect op uitputting. Het verminderen van taakeisen had een negatief effect op bevoegtheid en aanpassingsvermogen en een positief effect op uitputting. Waar gedragingen gericht op het verminderen van taakeisen dysfunctioneel lijken te zijn, hebben het zoeken van hulpbronnen en uitdagingen positieve implicaties voor de motivatie, gezondheid en prestatie van werknemers gedurende organisatieverandering. Werknemers die hulpbronnen en uitdagingen zoeken zijn niet alleen bevoegd in hun werk. Daarnaast voeren ze hun kerntaken en nieuwe taken, die geïntroduceerd zijn door de verandering, adequaat uit en blijven gezond gedurende organisatieverandering. Met andere woorden, terwijl werknemers in het algemeen voordeel ondervonden van toenaderingsgedragingen (i.e., het zoeken van hulpbronnen en uitdagingen), werden ze niet geholpen in het omgaan met organisatieverandering door vermijdingsgedragingen (i.e., het verminderen van taakeisen).

## Conclusie

Dit proefschrift onthulde dat job crafting door werknemers voorspeld wordt door: (i) contextuele factoren (bijv., een actieve werkomgeving en organisatieveranderingen met een grote impact), (ii) individuele motivatie oriëntatie (bijv., de regulatory focus van de werknemer en bereidheid om te veranderen), en (iii) de wisselwerking tussen individuele motivatie oriëntatie (i.e., regulatory focus van de werknemer) en contextuele factoren (i.e., communicatie over de organisatieverandering). Verder had job crafting zowel positieve als negatieve effecten op de aanpassing van de werknemer aan de verandering. Job crafting kwam naar voren als een multidimensionaal, vrijwillige en uit eigen initiatief toegepaste strategie die werknemers gebruiken om zich aan te passen aan de veranderende omgeving. Werknemers craften hun baan niet alleen wanneer hun werkomgeving dat van hen verlangt, maar ook wanneer de werkomgeving niet past bij hun motivatie oriëntatie. Job crafting heeft vooral positieve, maar soms ook negatieve potentiële implicaties voor verschillende aspecten van aanpassing aan organisatieverandering, waaronder bevoegtheid, uitputting en prestatie. Deze bevindingen gaan in op de actieve rol van de werknemer in de organisatieverandering en introduceren job crafting als een nuttig instrument voor werknemers ten tijden van verandering binnen de organisatie.

Managers zouden werknemers moeten stimuleren om aan job crafting te doen (i.e., het zoeken van hulpbronnen en uitdagingen), terwijl ze het verminderen van taakeisen moeten proberen te ontmoedigen. Het zoeken van hulpbronnen en uitdagingen zou vooral bij werknemers met een preventiefocus aangemoedigd moeten worden, omdat dit hen kan helpen om over hun weerstand heen te komen. Toekomstig onderzoek zou meer aspecten die vooraf gaan aan job crafting gedragingen binnen de context waarin organisatieverandering plaatsvindt kunnen bekijken. Ten slotte zouden de effecten van job crafting op aspecten van de werkomgeving onderzocht moeten worden omdat deze nog meer licht kunnen werpen op de effecten van job crafting op de aanpassing van werknemers aan de organisatieverandering.

# References

---



- Aaker, J. L., & Lee, A. Y. (2006). Understanding regulatory fit. *Journal of Marketing Research*, *43*, 15–19.
- Abrahamson, E. (2004). *Change without pain: How managers can overcome initiative overload, organizational chaos, and employee burnout*. Boston: Harvard Business School Press.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. London: Sage Publications.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179–211.
- Akin, A. (2012). Self-handicapping and burnout. *Psychological Reports*, *110*, 187–196.
- Amiot, C. E., Terry, D. J., Jimmieson, N. L., & Callan, V. J. (2006). A longitudinal investigation of coping processes during a merger: Implications for job satisfaction and organizational identification. *Journal of Management*, *32*, 552–574.
- Arbuckle, J. L. (1997). *Amos Users' Guide Version 3.6*. Chicago: Smallwaters Corporation.
- Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management*, *25*, 293–315.
- Ashford, S. J. (1988). Individual strategies for coping with stress during organizational transitions. *Journal of Applied Behavioral Science*, *24*, 19–36.
- Ashford, S. J., Blatt, R., & VandeWalle, D. V. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management*, *29*, 773–799.
- Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? *The Journal of Applied Behavioral Science*, *44*, 48–70.
- Avnet, T., & Higgins, E. T. (2006). How regulatory fit affects value in consumer choices and opinions. *Journal of Marketing Research*, *43*, 1–10.
- Baas, M., De Dreu C. K. W., & Nijstad, B. A. (2011). When prevention promotes creativity: The role of mood, regulatory focus, and regulatory closure. *Journal of Personality and Social Psychology*, *100*, 794–809.
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, *83*, 189–206.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, *22*, 309–328.
- Bakker, A. B., Demerouti, E., De Boer, E., & Schaufeli, W. B. (2003). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior*, *62*, 341–356.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, *10*, 170–180.
- Bakker, A. B., Demerouti, E., Taris, T., Schaufeli, W. B., & Schreurs, P. (2003). A multi-group analysis of the job demands–resources model in four home care organizations. *International Journal of Stress Management*, *10*, 16–38.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management*, *43*, 83–104.

- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement particularly when job demands are high. *Journal of Educational Psychology, 99*, 274–284.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress, 22*, 187–200.
- Bakker, A. B., Van Emmerik, H., & Van Riet, P. (2008). How job demands, resources, and burnout predict objective performance: A constructive replication. *Anxiety, Stress, & Coping, 21*, 309–324.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Banks, G. C., Whelpley, C. E., Oh, I. S., & Shin, K. (2012). (How) are emotionally exhausted employees harmful? *International Journal of Stress Management, 19*, 198–216.
- Barrett, D. J. (2002). Change communication: using strategic employee communication to facilitate major change. *Corporate Communications: An International Journal, 7*, 219–231.
- Beal, D. J., & Weiss, H. M. (2003). Methods of ecological momentary assessment in organizational research. *Organizational Research Methods, 6*, 440–464.
- Berg, J. M., Grant, A. M., & Johnson, V. (2010). When callings are calling: Crafting work and leisure in pursuit of unanswered occupational callings. *Organization Science, 21*, 973–994.
- Berg, J. M., Wrzesniewski, A., & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior, 31*, 158–186.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology, 54*, 579–616.
- Bommer, M., & Jalajas, D. S. (1999). The threat of organizational downsizing on the innovation propensity of R&D professionals. *R&D Management, 29*, 27–34.
- Boomsma, A. (1982). Robustness of LISREL against small sample sizes in factor analysis models. In K. G. Jöreskog & H. Wold (Eds.), *Systems under indirect observation: Causality, structure, prediction (Part I)*. Amsterdam: North Holland.
- Bordia, P., Hobman, E., Jones, E., Gallois, C., & Callan, V. J. (2004). Uncertainty during organizational change: Types, consequences, and management strategies. *Journal of Business and Psychology, 18*, 507–532.
- Bordia, P., Hunt, E., Paulsen, N., Tourish, D., & DiFonzo, N. (2004). Uncertainty during organizational change: Is it all about control? *European Journal of Work and Organizational Psychology, 13*, 345–365.
- Bovey, W. H., & Hede, A. (2001). Resistance to organisational change: the role of defence mechanisms. *Journal of Managerial Psychology, 16*, 534–548.
- Brenninkmeijer, V., Demerouti, E., Le Blanc, P. M., & Van Emmerik, I. J. H. (2010). Regulatory focus at work: The moderating role of regulatory focus in the job demands–resources model. *Career Development International, 15*, 708–728.
- Brockner, J., & Higgins, E. T. (2001). Regulatory Focus Theory: Implications for the Study of Emotions at Work. *Organizational Behavior and Human Decision Processes, 86*, 35–66.

- Brotheridge, C. M. (2003). The role of fairness in mediating the effects of voice and justification on stress and other outcomes in a climate of organizational change. *International Journal of Stress Management, 10*, 253–268.
- Brotheridge, C. M., & Lee, R. T. (2002). Testing a conservation of resources model of the dynamics of emotional labor. *Journal of Occupational Health Psychology, 7*, 57–67.
- Burnes, B. (2005). Complexity theories and organisational change. *International Journal of Management Reviews, 7*, 73–90.
- Buunk, B. P., Schaufeli, W. B., & Ybema, J. F. (1994). Burnout, uncertainty, and the desire for social comparison among nurses. *Journal of Applied Social Psychology, 24*, 1701–1718.
- By, R. T., & Burnes, B. (2012). Leadership and change. Whatever happened to ethics? In E. M. Boje, Burnes, B., & Hassard, J. (Eds.), *The Routledge companion to organizational change*. (pp. 295–309). London: Routledge.
- Caldwell S. D., Herold D. M., & Fedor D. B. (2004). Towards an understanding of the relationships between organizational change, individual differences, and changes in person-environment fit: A cross-level study. *Journal of Applied Psychology, 89*, 868–882.
- Callan, V. J. (1993). Individual and organizational strategies for coping with organizational change. *Work and Stress, 7*, 63–75.
- Callan, V. J., Terry, D. J., & Schweitzer, R. (1994). Coping resources, coping strategies and adjustment to organizational change: direct or buffering effects? *Work & Stress, 8*, 372–383.
- Cartwright, S., & Cooper, C. L. (1993). The psychological impact of merger and acquisition on the individual: A study of building society managers. *Human Relations, 46*, 327–347.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267–283.
- Centraal Bureau voor de Statistiek (CBS) (2009). *Statistisch jaarboek* [Statistical yearbook] (Heerlen, CBS).
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from “feeling right.” *Journal of Personality and Social Psychology, 86*, 388–404.
- Choi, J. N. (2007). Change-oriented organizational citizenship behavior: effects of work environment characteristics and intervening psychological processes. *Journal of Organizational Behavior, 28*, 467–484.
- Chu, A. H. C., & Choi, J. N. (2005). Rethinking procrastination: positive effects of “active” procrastination behavior on attitudes and performance. *Journal of Social Psychology, 145*, 245–264.
- Chung, H., Bekker, S., & Houwing, H. (2012). Young people and the post-recession labour market in the context of Europe 2020. *Transfer: European Review of Labour and Research, 18*, 301–317.
- Cortina, J. M., Chen, G., & Dunlap, W. P. (2001). Testing interaction effects in LISREL: examination and illustration of available procedures. *Organizational Research Methods, 4*, 324–360.
- Cothran, D. L., & Larsen, R. (2008). Comparison of inhibition in two timed reaction tasks: the color and emotion Stroop tasks. *Journal of Psychology: Interdisciplinary and Applied, 142*, 373–385.

- Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes*, 69, 117–132.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper Perennial.
- Cunningham, C. E., Woodward, C. A., Shannon, H. S., Macintosh, J., Lendrum, B., Rosenbloom, D., & Brown, J. (2002). Readiness for organizational change: A longitudinal study of workplace, psychological, and behavioral correlates. *Journal of Occupational and Organizational Psychology*, 75, 377–392.
- Daniels, K., & Harris, C. (2005). A daily diary study of coping in the context of the job demands-control-support model. *Journal of Vocational Behavior*, 66, 219–37.
- De Jonge, J., Dollard, M. F., Dormann, C., Le Blanc, P. M., & Houtman, I. L. D. (2000). The demand-control model: specific demands, specific control, and well-defined groups. *International Journal of Stress Management*, 7, 269–287.
- De Jonge, J., Dormann, C., Janssen, P. M. P., Dollard, M. F., Landeweerd, J. A., & Nijhuis, F. J. N. (2001). Testing the reciprocal relationships between job characteristics and psychological well-being: a cross lagged structural equation model. *Journal of Occupational and Organizational Psychology*, 74, 29–46.
- De Witte, H., Verhofstadt, E., & Omey, E. (2007). Testing Karasek's learning and strain hypothesis on young workers in their first job. *Work & Stress*, 21, 131–141.
- Demerouti, E. (2006). Job characteristics, flow and performance: The moderating role of conscientiousness. *Journal of Occupational Health Psychology*, 3, 266–280.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499–512.
- Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment*, 19, 12–23.
- Demerouti, E., Le Blanc, P. M., Bakker, A. B., Schaufeli, W. B., & Hox, J. (2009). Present but sick: a three-wave study on job demands, presenteeism and burnout. *Career Development International*, 14, 50–68.
- Demerouti, E., Taris, T. W., & Bakker, A. B. (2007). Need for recovery, home-work interference and performance: Is lack of concentration the link? *Journal of Vocational Behavior*, 71, 204–220.
- Demerouti, E., Verbeke, W. J., & Bakker, A. B. (2005). Exploring the relationship between a multidimensional and multifaceted burnout concept and self-rated performance. *Journal of Management*, 31, 186–209.
- Dollard, M. E., & Winefield, A. H. (1998). A test of the demand-control/support model of work stress in correctional officers. *Journal of Occupational Health Psychology*, 3, 243–264.
- Dooley, K. J. (1997). A complex adaptive systems model of organization change. *Nonlinear Dynamics, Psychology, and Life Sciences*, 1, 69–97.

- Doty, D. H., & Glick, W. H. (1998). Common methods bias: Does common methods variance really bias results? *Organizational Research Methods, 1*, 374–406.
- Dutton, J. E., & Dukerich, J. M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *Academy of Management Journal, 517–554*.
- Endler, N. S., & Parker, J. D. (1994). Assessment of multidimensional coping: Task, emotion, and avoidance strategies. *Psychological Assessment, 6*, 50–60.
- Fay, D., & Sonnentag, S. (2010). A look back to move ahead: New directions for research on proactive performance and other discretionary work behaviors. *Applied Psychology: An International Review, 59*, 1–20.
- Fazio, R. H. (1990). A practical guide to the use of response latencies in social psychological research. In C. Hendrick & M. S. Clark (Eds.), *Review of personality and social psychology* (Vol. 11, pp. 74–97). Newbury Park, CA: Sage.
- Ferrari, J. R. (2001). Procrastination as self-regulation failure of performance: Effects of cognitive load, self-awareness, and time limits on “working best under pressure”. *European Journal of Personality, 15*, 391–406.
- Förster, J. (2009). Relations between Perceptual and Conceptual Scope: How Global versus Local Processing Fits a Focus on Similarity versus Dissimilarity. *Journal of Experimental Psychology: General, 138*, 88–111.
- Förster, J., & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological Science, 16*, 631–636.
- Förster, J., Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the “goal looms larger” effect. *Journal of Personality and Social Psychology, 75*, 1115–1131.
- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. In B. M. Staw & R. L. Sutton (Eds.), *Research in organizational behaviour* (pp. 133–187). Stamford, CT: JAI Press.
- Frese, M., Fay, D., Hilburger, T., Leng, K., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal of Organizational and Occupational Psychology, 70*, 139–161.
- Frese, M., Garst, H., & Fay, D. (2007). Making things happen: Reciprocal relationships between work characteristics and personal initiative in a four-wave longitudinal structural equation model. *Journal of Applied Psychology, 92*, 1084–1102.
- Fried, Y. & Ferris, G.R. (1987). The validity of the Job Characteristics Model: A review and meta-analysis. *Personnel Psychology, 40*, 287–322.
- Friedman, R. S., & Förster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology, 81*, 1001–1013.
- Fritz, C., & Sonnentag, S. (2009). Antecedents of day-level proactive behavior: A look at job stressors and positive affect during the workday. *Journal of Management, 35*, 94–111.
- Fuller, J. B., Marler, L. E., & Hester, K. (2006). Promoting felt responsibility for constructive change and proactive behavior: exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior, 27*, 1089–1120.

- Furda, J. (1995). *Werk, persoon en welzijn: Een toets van het JD-C model [Work, personality, and well-being: A test of the JD-C model]*. Unpublished doctoral dissertation, Utrecht University, Netherlands.
- Furst, S. A., & Cable, D. M. (2008). Employee resistance to organizational change: Managerial influence tactics and leader-member exchange. *Journal of Applied Psychology, 93*, 453–462.
- Gagné, M., Koestner, R., & Zuckerman, M. (2000). Facilitating the acceptance of organizational change: the importance of self-determination. *Journal of Applied Social Psychology, 30*, 1843–1852.
- Ghitulescu, B. E. (2006). *Shaping tasks and relationships at work: Examining the antecedents and consequences of employee job crafting*. Unpublished doctoral dissertation, University of Pittsburgh.
- Gilley, A., Gilley, J. W., & McMillan, H. S. (2009). Organizational change: motivation communication, and leadership effectiveness. *Performance Improvement Quarterly, 21*, 75–94.
- Gorman, C. A., Meriac, J. P., Overstreet, B. L., Apodaca, S., McIntyre, A. L., Park, P., & Godbey, J. N. (2012). A meta-analysis of the regulatory focus nomological network: Work-related antecedents and consequences. *Journal of Vocational Behaviour, 90*, 148–161.
- Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: The rise of relational and proactive perspectives. *Academy of Management Annals, 3*, 317–375.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly, 82*, 581–629.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal, 50*, 327–347.
- Grimm, L. R., Markman, A. B., Maddox, W. T., & Baldwin, G. C. (2008). Differential effects of regulatory fit on category learning. *Journal of Experimental Social Psychology, 44*, 920–927.
- Gruys, M. L. (1999). *The dimensionality of deviant employee performance in the workplace*. Unpublished doctoral dissertation, University of Minnesota.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250–279.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading: Addison-Wesley.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*, 495–513.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior, 73*, 78–91.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology, 87*, 474–487.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280–1300.



- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1–46). New York: Academic Press.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, *55*, 1217–1233.
- Higgins, E. T. (2005). Value from regulatory fit. *Current Directions in Psychological Science*, *14*, 209–213.
- Higgins, E. T., Roney, C.J., Crowe, E., & Hymes, C. (1994). Ideal versus ought predictions for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology*, *66*, 276–286.
- Higgins, E. T., Shah, J. Y., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology*, *72*, 515–525.
- Hirst, G., Van Knippenberg, D., & Zhou, J. (2009). A cross-level perspective on employee creativity: Goal orientation, team learning behavior, and individual creativity. *Academy of Management Journal*, *52*, 280–293.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*, *50*, 337–370.
- Hoff, T. J., & McCaffrey, D. P. (1996). Adapting, Resisting, and Negotiating How Physicians Cope with Organizational and Economic Change. *Work and Occupations*, *23*, 165–189.
- Holman, D. J., & Wall, T. D. (2002). Work characteristics, learning-related outcomes, and strain: a test of competing direct effects, mediated, and moderated models. *Journal of Occupational Health Psychology*, *7*, 283–301.
- Holmes, T. A., & Rahe, T. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, *11*, 213–218.
- Hornung, S., & Rousseau, D.M. (2007). Active on the job proactive in change: How autonomy at work contributes to employee support for organizational change. *Journal of Applied Behavioral Science*, *43*, 401–426.
- Hox, J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, NJ: Erlbaum.
- Ilies, R., Schwind, K. M., & Heller, D. (2007). Employee well-being: A multilevel model linking work and nonwork domains. *European Journal of Work and Organizational Psychology*, *16*, 326–341.
- Janssen, O., & Van Yperen, N.W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal*, *47*, 368–384.
- Jimmieson, N. L., Terry, D. J., & Callan, V. J. (2004). A longitudinal study of employee adaptation to organizational change: the role of change-related information and change-related self-efficacy. *Journal of Occupational Health Psychology*, *9*, 11–27.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*. Chicago: Scientific Software International.

- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, *127*, 376–407.
- Judge, T. A., Thoresen, C. J., Pucik, V., & Welbourne, T. M. (1999). Managerial coping with organizational change: A dispositional perspective. *Journal of Applied Psychology*, *84*, 107–122.
- Juniper, B., White, N., & Bellamy, P. (2010). A new approach to evaluating the well-being of police. *Occupational Medicine*, *60*, 560–565.
- Karasek, R. (1985). *Job content instrument: Questionnaire and user's guide, revision 1.1*. Los Angeles: University of Southern California.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, *24*, 285–307.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work: stress, productivity and the reconstruction of working life*. New York: Basic Books.
- Karasek, R. A., Brisson, C., Kawakami, N., Houtman, I., & Bongers, P. (1998). The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology*, *3*, 322–355.
- Kark, R., & van Dijk, D. (2007). Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *Academy of Management Review*, *32*, 500–528.
- Kauffeld, S., Jonas, E., & Frey, D. (2004). Effects of a flexible work-time design on employee- and company-related aims. *European Journal of Work and Organizational Psychology*, *13*, 79–100.
- Keller, J. & Bless, H. (2006). Regulatory fit and cognitive performance: The interactive effect of chronic and situationally induced self-regulatory mechanisms on test performance. *European Journal of Social Psychology*, *36*, 393–405.
- Keller, P. A., Lee, A. Y., & Sternthal, B. (2004). *Fitting construal to judgment: The compatibility effect of regulatory focus and level of construal*. Working paper.
- Kira, M., Balkin, D. B., & San, E. (2012). Authentic work and organizational change: Longitudinal evidence from a merger. *Journal of Change Management*, *12*, 31–51.
- Kira, M., van Eijnatten, F. M., & Balkin, D. B. (2010). Crafting sustainable work: development of personal resources. *Journal of Organizational Change Management*, *23*, 616–632.
- Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, *42*, 58–74.
- Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation implementation. *Academy of Management Review*, *21*, 1055–1080.
- Klenk, M. M., Strauman, T. J., & Higgins, E. T. (2011). Regulatory focus and anxiety: A self-regulatory model of GAD-depression comorbidity. *Personality and Individual Differences*, *50*, 935–943.
- Korunka, C., Scharitzer, D., Carayon, P., & Sainfort, F. (2003). Employee strain and job satisfaction related to an implementation of quality in a public service organization: A longitudinal study. *Work & Stress*, *17*, 52–72.
- Kotter, J. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*, *73*, 59–67.



- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: a meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*, 281–342.
- Kyriacou, C., & Sutcliffe, J. (1978). Teacher stress: Prevalence, sources, and symptoms. *British Journal of Educational Psychology, 48*, 159–167.
- Laschinger, H. K. S., Finegan, J., Shamian, J., & Almost, J. (2001). Testing Karasek's Demands-Control Model in restructured healthcare settings: effects of job strain on staff nurses' quality of work life. *Journal of Nursing Administration, 31*, 233–243.
- Latimer, A. E., Rivers, S. E., Rench, T. A., Katulak, N. A., Hicks, A., Hodorowski, J. K., Higgins, E. T., & Salovey, P. (2008). A field experiment testing the utility of regulatory fit messages for promoting physical activity. *Journal of experimental social psychology, 44*, 826–832.
- Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology, 44*, 1–22.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Leana, C., Appelbaum, E., & Shevchuk, I. (2009). Work process and quality of care in early childhood education: The role of job crafting. *Academy of Management Journal, 52*, 1169–1192.
- Lee, A. Y., Keller, P., & Sternthal, B. (2010). Value from regulatory construal fit. *Journal of Consumer Research, 36*, 735–747.
- Lee, A., & Aaker, J. (2004). Bringing the Frame into Focus: The Influence of Regulatory Fit on Processing Fluency and Persuasion. *Journal of Personality and Social Psychology, 86*, 205–218.
- Lee, A., Aaker, J., & Gardner, W. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*, 1122–1134.
- Lee, F. (1997). When the going gets tough, do the tough ask for help? Help seeking and power motivation in organizations. *Organizational Behavior and Human Decision Processes, 72*, 336–363.
- Lee, R. T., & Ashforth, B. E. (1993). A further examination of managerial burnout: Toward an integrated model. *Journal of Organizational Behavior, 14*, 3–20.
- Leiter, M. P., & Harvie, P. (1998). Conditions for staff acceptance of organizational change: Burnout as a mediating construct. *Anxiety, Stress, & Coping, 11*, 1–25.
- Leone, L., Perugini, M., & Bagozzi, R. P. (2005). Emotions and decision making: Regulatory focus moderates the influence of anticipated emotions on action evaluations. *Cognition and Emotion, 19*, 1175–1198.
- Lieberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality & Social Psychology, 77*, 1135–1145.
- Lockwood, P., Jordan, C.H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology, 83*, 854–864.
- Lovelace, K. J., Manz, C. C., & Alves, J. S. (2007). Work stress and leadership development: The role of leadership, shared leadership, physical fitness and flow in managing demands and increasing job control. *Human Resource Management Review, 17*, 374–387.

- Lyons, P. (2008). The crafting of jobs and individual differences. *Journal of Business and Psychology, 23*, 25–36.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology, 1*, 3–30.
- Mallak, L. (1998). Putting organisational resilience to work. *Industrial Management, 40*, 8–14.
- Marsh, H. W., Hau, K. T., Balla, J. R., & Grayson, D. (1998). Is more ever too much? The number of indicators per factor in confirmatory factor analysis. *Multivariate Behavioral Research, 33*, 181–220.
- Martin, A. J., Jones, E. S., & Callan, V. J. (2005). The role of psychological climate in facilitating employee adjustment during organizational change. *European Journal of Work & Organizational Psychology, 14*, 263–289.
- Martin, P., Salanova, M., & Peiro, J. S. (2007). Job demands, job resources and individual innovation at work. *Psicothema, 19*, 621–626.
- Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*, 498–512.
- Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in organizational behavior. *Journal of Organizational Behavior, 27*, 1031–1056.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior, 70*, 149–171.
- McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin, 114*, 376–390.
- McGreevy, M. (2003). The changing nature of work. *Industrial and Commercial Training, 35*, 191–195.
- Metselaar, E.E. (1997). *Assessing the Willingness to Change: Construction and Validation of the DINAMO*. Amsterdam: VU.
- Miller, V. D., Johnson, J. R., & Grau, J. (1994). Antecedents to willingness to participate in a planned organizational change. *Journal of Applied Communication Research, 22*, 59–80.
- Milling, P. (2011). Foreword. In N. Zimmermann, *Dynamics of drivers of organizational change*. Gabler Verlag: Wiesbaden.
- Mischel, W. (1977). The interaction of person and situation. In D. Magnusson, & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology* (pp. 333–352). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Monsell, S. (2003). Task switching. *Trends in Cognitive Sciences, 7*, 134–140.
- Morgan, D. E. & Zeffane, R. (2003). Employee involvement, organizational change and trust in management. *International Journal of Human Resource Management, 14*, 55–75.
- Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research, 28*, 229–242.
- Moss, S. (2009). Cultivating the regulatory focus of followers to amplify their sensitivity to transformational leadership. *Journal of Leadership & Organizational Studies, 15*, 241–259.
- Muthén, B. & Asparouhov, T. (2011). Beyond multilevel regression modeling: Multilevel analysis in a general latent variable framework. In J. Hox & J.K. Roberts (Eds), *Handbook of Advanced Multilevel Analysis*, (pp. 15-40). New York: Taylor and Francis.

- Muthén, B. O. (1994). Multilevel covariance structure analysis. *Sociological Methods and Research*, 22, 376–398.
- Muthén, L. K., & Muthén, B. (2010). *Mplus users guide (version 6)*. Los Angeles: Muthén & Muthén.
- Neubert, M. J., Kacmar, K. M., Carlson, D. S., Chonko, L. B., & Roberts, J. A. (2008). Regulatory focus as a mediator of the influence of initiating structure and servant leadership on employee behavior. *Journal of Applied Psychology*, 93, 1220–1233.
- Noblet, A., Rodwell, J., & McWilliams, J. (2006). Organizational change in the public sector: Augmenting the demand control model to predict employee outcomes under new public management. *Work & Stress*, 20, 335–352.
- Ohly, S., & Fritz, S. (2010). Work characteristics, challenge appraisal, creativity, and proactive behavior: A multi-level study. *Journal of Organizational Behavior*, 31, 543–565.
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research. *Journal of Personnel Psychology*, 9, 79–93.
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, 31, 463–479.
- Oreg, S. (2003). Resistance to change: Developing an individual differences measure. *Journal of Applied Psychology*, 88, 680–693.
- Oreg, S., Vakola, M., & Armenakis, A. (2011). Change Recipients' Reactions to Organizational Change A 60-Year Review of Quantitative Studies. *The Journal of Applied Behavioral Science*, 47, 461–524.
- Orlikowski, W. (1996). Improvising organizational transformation over time: A situated change perspective. *Information Systems Research*, 7, 63–92.
- Otto, A. R., Markman, A. B., Gureckis, T. M., & Love, B. C. (2010). Regulatory fit and systematic exploration in a dynamic decision-making environment. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 36, 797–804.
- Parker, J. D., & Endler, N. S., (1996). Coping and defense: A historical overview. In M. Zeidner & N. S. Endler (Eds.), *Handbook of Coping: Theory, Research, Applications* (pp. 3–23). New York: John Wiley & Sons.
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, 36, 827–856.
- Patterson, E. S., Cook, R. I., & Render, M. L. (2002). Improving patient safety by identifying side effects from introducing bar coding in medication administration. *Journal of the American Medical Informatics Association*, 9, 540–553.
- Petrou, P., Demerouti, E., & Häfner, M. (2012). *When fit matters more: The effect of regulatory fit on performance, work engagement and exhaustion during change*. Poster presented at the 27<sup>th</sup> Annual Conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *Journal of Organizational Behavior*, 33, 1120–1141.
- Pham, M. T., & Avnet, T. (2004). Ideals and oughts and the reliance on affect versus substance in persuasion. *Journal of Consumer Research*, 30, 503–518.

- Piderit, S. K. (2000). Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward an organizational change. *Academy of Management Review*, *25*, 783–794.
- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology*, *92*, 438–454.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879–903.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, *40*, 879–891.
- Prieto, L. L., Soria, M. S., Martinez, I. M., & Schaufeli, W. (2008). Extension of the Job Demands-Resources model in the prediction of burnout and engagement among teachers over time. *Psicothema*, *20*, 354–360.
- Rafferty, A. E., & Griffin, M. A. (2006). Perceptions of organizational change: a stress and coping perspective. *Journal of Applied Psychology*, *91*, 1154–1162.
- Rafferty, A. E., & Jimmieson, N. L. (2010). Team change climate: A group-level analysis of the relationships among change information and change participation, role stressors, and well-being. *European Journal of Work & Organizational Psychology*, *19*, 551–586.
- Rafferty, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology*, *25*, 111–164.
- Rasbash, J., Steele, F., Browne, W., & Prosser, B. A. (2004). *User's Guide to MLwiN, Version 2.0*. London: Institute of Education, University of London.
- Richardsen, A. M., Burke, R. J., & Martinussen, M. (2006). Work and health outcomes among police officers: The mediating role of police cynicism and engagement. *International Journal of Stress Management*, *13*, 555–574.
- Rietzschel, E. F. (2011). Collective regulatory focus predicts specific aspects of team innovation. *Group Processes and Intergroup Relations*, *14*, 337–345.
- Righetti, F., Finkenauer, C., & Rusbult, C. (2011). The benefits of interpersonal regulatory fit for individual goal pursuit. *Journal of Personality and Social Psychology*, *101*, 720–736.
- Robinson, O., & Griffiths, A. (2005). Coping with the stress of transformational change in a government department. *The Journal of Applied Behavioural Science*, *41*, 204–221.
- Roney, C., Higgins, E.T., & Shah, J. (1995). Goals and framing: How outcome focus influences motivation and emotion. *Personality and Social Psychology Bulletin*, *21*, 1151–1160.
- Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, *41*, 813–819.
- Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour: *The International Journal of Human Resource Management*, *19*, 116–131.
- Salmela-Aro, K., Tolvanen, A., & Nurmi, J. E. (2009). Achievement strategies during university studies predict early career burnout and engagement. *Journal of Vocational Behavior*, *75*, 162–172.

- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*, 293–315.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*, 701–716.
- Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior, 30*, 893–917.
- Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. London: Taylor & Francis.
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach Burnout Inventory—General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Schaufeli, W. B., Van Dierendonck, D., & Van Gorp, K. (1996). Burnout and reciprocity: Towards a dual-level social exchange model. *Work & Stress, 10*, 225–237.
- Schokker, M. C., Links, T. P., Luttkik, M., & Hagedoorn, M. (2010). The association between regulatory focus and distress in patients with a chronic disease: The moderating role of partner support. *British Journal of Health Psychology, 15*, 63–78.
- Scholer, A. A., Stroessner, S. J., & Higgins, E. T. (2008). Responding to negativity: How a risky tactic can serve a vigilant strategy. *Journal of Experimental Social Psychology, 44*, 767–774.
- Scholer, A. A., Zou, X., Fujita, K., Stroessner, S. J., & Higgins, E. T. (2010). When risk seeking becomes a motivational necessity. *Journal of Personality and Social Psychology, 99*, 215–231.
- Schwarz, N., & Bohner, G. (1996). Feelings and their motivational implications. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action* (pp. 119–145). New York: Guilford Press.
- Schweiger, D. M., & Denisi, A. S. (1991). Communication with employees following a merger: A longitudinal field experiment. *Academy of Management Journal, 34*, 110–135.
- Selye, H. (1987). *Stress without Distress*. London: Transworld.
- Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology, 74*, 285–293.
- Sheldon, K. M., Ryan, R., & Reis, H. T. (1996). What makes for a good day? Competence and autonomy in the day and in the person. *Personality and Social Psychology Bulletin, 22*, 1270–1279.
- Siegrist, J. (1996). Adverse health effects of high effort-low reward conditions. *Journal of Occupational Health Psychology, 1*, 27–41.
- Singh, J., Goolsby, J. R., & Rhoads, G. K. (1994). Behavioral and psychological consequences of boundary spanning burnout for customer service representatives. *Journal of Marketing Research, 31*, 558–569.
- Smollan, R. K., Sayers, J. G., & Matheny, J. A. (2010). Emotional responses to the speed, frequency and timing of organizational change. *Time & Society, 19*, 28–53.

- Somech, A., & Drach-Zahavy, A. (2004). Exploring organizational citizenship behaviour from an organizational perspective: The relationship between organizational learning and organizational citizenship behaviour. *Journal of Occupational and Organizational Psychology*, 77, 281–298.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between non-work and work. *Journal of Applied Psychology*, 88, 518–528.
- Laschinger, H. K. S., Finegan, J., Shamian, J., & Almost, J. (2001). Testing Karasek's Demands-Control Model in restructured healthcare settings: effects of job strain on staff nurses' quality of work life. *Journal of Nursing Administration*, 31, 233–243.
- Spiegel, S., Grant-Pillow, H., & Higgins, E. T. (2004). How regulatory fit enhances motivational strength during goal pursuit. *European Journal of Social Psychology*, 34, 39–54.
- Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness satisfaction, and strain. *Journal of Management*, 23, 679–704.
- Stam, D. A., Van Knippenberg, D., & Wisse, B. (2010). The role of regulatory fit in visionary leadership. *Journal of Organizational Behavior*, 31, 499–518.
- Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133, 65–94.
- Stensaker, I., Meyer, C. B., Falkenberg, J., & Haueng, A. C. (2002). Excessive change: Coping mechanisms and consequences. *Organizational Dynamics*, 31, 296–312.
- Strümpfer, D. J. W. (2006). The strengths perspective: Fortigenesis in adult life. *Social Indicators Research*, 77, 11–36.
- Sue-Chan, C., Wood, R. E., & Latham, G. P. (2012). Effect of a coach's regulatory focus and an individual's implicit person theory on individual performance. *Journal of Management*, 38, 809–835.
- Sverke, M., Hellgren, J., & Naswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7, 242–264.
- Swider, B. W., & Zimmerman, R. D. (2010). Born to burnout: A meta-analytic path model of personality, job burnout, and work outcomes. *Journal of Vocational Behavior*, 76, 487–506.
- Tabachnick, B. G., & Fidell, L. S. (2000). *Using multivariate statistics*. (4th edn.). London: Allyn & Bacon.
- Taris, T. W., & Kompier, M. A. (2006). Games researchers play—extreme-groups analysis and mediation analysis in longitudinal occupational health research. *Scandinavian Journal of Work, Environment & Health*, 463–472.
- Taris, T. W., Kompier, M. A. J., De Lange, A. H., Schaufeli, W. B., & Schreurs, P. J. G. (2003). Learning new behavior patterns: A longitudinal test of Karasek's active learning hypothesis among Dutch teachers. *Work & Stress*, 17, 1–20.
- Taris, T. W., Kompier, M. A. J., Geurts, S. A. E., Houtman, I. L. D., & van den Heuvel, F. F. M. (2010). Professional efficacy, exhaustion, and work characteristics among police officers: A longitudinal test of the learning-related predictions of the demand-control model. *Journal of Occupational and Organizational Psychology*, 83, 455–474.



- Taylor-Bianco, A., & Schermerhorn, J. (2006). Self-regulation, strategic leadership and paradox in organizational change. *Journal of Organizational Change Management*, *19*, 457–470.
- Terry, D. D. J., Callan, V. J., & Sartori, G. (1996). Employee adjustment to an organizational merger: Stress, coping and intergroup differences. *Stress Medicine*, *12*, 105–122.
- Terry, D. J., & Jimmieson, N. L. (2003). A stress and coping approach to organizational change: Evidence from three field studies. *Australian Psychologist*, *38*, 92–101.
- Teuchmann, K., Totterdell, P., & Parker, S. K. (1999). Rushed, unhappy, and drained: An experience sampling study of relations between time pressure, perceived control, mood, and emotional exhaustion in a group of accountants. *Journal of Occupational Health Psychology*, *4*, 37–54.
- Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, *36*(2), Art. #841, 9 pages. DOI: 10.4102/sajip.v36i2.841.
- Tims, M., Bakker, A. B., & Derks, D. (2012). The development and validation of the job crafting scale. *Journal of Vocational Behavior*, *80*, 173–186.
- Toppinen-Tanner, S., Kalimo, R., & Mutanen, P. (2002). The process of burnout in white-collar and blue-collar jobs: eight-year prospective study of exhaustion. *Journal of Organizational Behavior*, *23*, 555–570.
- Torp, S., Riise, T., & Moen, B. E. (2001). The impact of psychosocial work factors on musculoskeletal pain: A prospective study. *Journal of Occupational Environmental Medicine*, *43*, 120–126.
- Trawalter, S., & Richeson, J. A. (2006). Regulatory focus and executive function after interracial interactions. *Journal of Experimental Social Psychology*, *42*, 406–412.
- Tseng, H. C., & Kang, L. M. (2008). How does regulatory focus affect uncertainty towards organizational change? *Leadership & Organization Development Journal*, *29*, 713–731.
- Vakola, M., & Nikolaou, I. (2005). Attitudes towards organizational change – What is the role of employees' stress and commitment? *Employee Relations*, *27*, 160–174.
- Van Dam, K., Oreg, S., & Schyns, B. (2008). Daily work contexts and resistance to organizational change: The role of leader-member exchange, development climate, and change process characteristics. *Applied Psychology, An International Review*, *57*, 313–334.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress*, *22*, 277–294.
- Van den Heuvel, M., Demerouti, E., Bakker, A. B., & Schaufeli, W. B. (2010). Personal resources and work engagement in the face of change. In J. Houdmont & S. Leka (Eds.), *Contemporary occupational health psychology* (Vol. 1, pp. 124 – 150). Chichester, UK: Wiley.
- Van den Heuvel, M., Demerouti, E., Schreurs, B. H. J., Bakker, A. B., & Schaufeli, W. B. (2009). Does meaning-making help during organizational change? *Career Development International*, *14*, 508–533.
- Van der Hulst, M., Van Veldhoven, M., & Beckers, D. (2006). Overtime and need for recovery in relation to job demands and job control. *Journal of Occupational Health*, *48*, 11–19.

- Van der Ven, N. (2011). The shame of reason in organizational change: A Levinassian perspective. *Issues in Business Ethics*, 32, DOI: 10.1007/978-90-481-9373-8.
- Van Eerde, W. (2003). Procrastination at work and time management training. *The Journal of psychology*, 137, 421–434.
- Van Horn, J. E., Schaufeli, W. B., & Enzmann, D. (1999). Teacher burnout and lack of reciprocity. *Journal of Applied Social Psychology*, 29, 91–108.
- Vaughn, L. A., Baumann, J., & Klemann, C. (2008). Openness to experience and regulatory focus: Evidence of motivation from fit. *Journal of Research in Personality*, 42, 886–894.
- Verhaeghe, R., Vlerick, P., de Backer, G., van Maele, G., & Gemmel, P. (2008). Recurrent changes in the work environment, job resources, and distress among nurses: A comparative cross-sectional survey. *International Journal of Nursing Studies*, 45, 382–392.
- Wallace, J. C., Johnson, P. D., & Frazier, M. L. (2009). An examination of the factorial, construct, and predictive validity and utility of the regulatory focus at work scale. *Journal of Organizational Behavior*, 30, 805–31.
- Wanberg, C. R., & Banas, J. T. (2000). Predictors and outcomes of openness to changes in a reorganizing workplace. *Journal of Applied Psychology*, 85, 132–142.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior*, 18, 1–74.
- Wrzesniewski, A., & Dutton, J. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26, 179–201.
- Wilke, G. (2012). Leaders and groups in traumatized and traumatizing organizations: A matter of everyday survival. In E. Hopper (Ed.), *Trauma and organizations* (pp.195–214). London: Karnac.
- Wu, C., McMullen, J., Neubert, M., & Yi, X. (2008). The influence of leader regulatory focus on employee creativity. *Journal of Business Venturing*, 23, 587–602.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the Job Demands-Resources model. *International Journal of Stress Management*, 14, 121–141.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82, 183–200.
- Yuan, Y., & MacKinnon, D. P. (2009). Bayesian mediation analysis. *Psychological Methods*, 14, 301–322.
- Zacher, H., & de Lange, A. H. (2011). Relations between chronic regulatory focus and future time perspective: Results of a cross-lagged structural equation model. *Personality and Individual Differences*, 50, 1255–1260.
- Zhang, S., Higgins, E. T., & Chen, G. (2011). Managing others like you were managed: How prevention focus motivates copying interpersonal norms. *Journal of Personality and Social Psychology*, 100, 647–663.
- Zimmermann, N. (2011). *Dynamics of drivers of organizational change*. Gabler Verlag: Wiesbaden.





# Acknowledgements

---

Looking back, it has been four precious years of learning and growth, a time rich in professional, emotional and psychological experiences. I am grateful to life for having been through this and also to the people who contributed in all sorts of ways to the completion of this project. Time to thank them now!

First of all, I want to thank my supervisors. Eva, thank you for giving me the chance to come, to work and to live in Holland. Thank you for your guidance, supervision and support, for the time you have invested in me, for caring, for the coffees –and yes, sometimes tea...– at your house and for being the Greek cosy part of my Dutch life. Wilmar, thank you for contributing your expertise and your ideas to our team, for your openness, your feedback, your practical mindset and for keeping me down-to-earth. Eva and Wilmar, having had you as supervisors makes my PhD more valuable and worthwhile.

I want to thank all the professors of the reading committee, Arnold Bakker, Marise Born, Toon Taris and Theo Wubbels who kindly took the time to read and evaluate my thesis.

There are certain people who offered vital help to conduct our research projects and to collect our data. Special thanks to Karel de Groot, from Politie Brabant-Noord for granting us access to the most valuable sample and dataset of my PhD thesis and for co-ordinating in a smooth and efficient way the most large-scale research project of our team. Karel, thank you for always being authentic, positive and warm! I also want to thank all the respondents of our studies (from Politie Brabant-Noord or other heterogeneous samples), especially the ones who invested energy into providing two, three, four and sometimes even five measurements! Thanks to all the students who collected data. Despoina, it was a pity that you were leaving Holland when I was coming here. Thank you for your help with statistics and more. Your famous white-green booklet has been my guide all the way from the start! Jørn, thank you for introducing me to Mplus and for being co-author in our diary study.

Furthermore, I want to thank the people from the department of Methods & Statistics of Utrecht University, especially Joop Hox and Mirjam Moerbeek for their invaluable help in difficult times of data analysis.

In the end of 2008 I left Athens and within a few days, there I was, working at Utrecht University with brand new colleagues, having soup and croquet during my daily lunch break. I thank all my colleagues from Utrecht for making me feel part of their team. Maria, thank you for always being sweet and supportive and for being part of the diary study team. Special thanks to all the AiO's, Corine, Jos, Else, Ilona, Gaby and Gerdientje for their help, support, and fun times during uitjes, dinners or conferences! And of course, applause for the star, my paranymph, Maggie! Maggie, you have also experienced that leaving your friends, family and networks behind and going to a new country can be hard. Many times I wondered why I didn't run back. Your warmth, support, charismatic presence and countless hours of fun made it a lot easier for me. For that and many more (described only shortly in the book I gave you) I am very grateful to you!

Colleagues from social psychology, especially, Claire, Anouk and Micha, thank you for dropping by our office, it was always a pleasure! And for helping me out with the complex new world of experiments. Micha, I really enjoyed working on our paper and I hope that this is only the first of more to follow.

To the HiPo team, René, Jelmer, Agnes en Petra, thank you for the inspiring meetings, for bringing the bigger picture into play and for the HiPo dinners! Richard, thank you for assisting us with the projects and for being critical and enthusiastic. I am part of a secret scheme to bring you back to science!

Arnold, thank you for trusting me and for giving me the chance to stay in science. There is very much to admire on you. I feel lucky that I know you and that I am able to work with you. Thanks to all my new colleagues from Erasmus University Rotterdam for making me feel welcome at my new job. Marise, Heleen and Arnold, thank you for your support and for giving me the space to have two jobs at a time for a while. Kim, thank you for translating the summary of this thesis and our G&O paper and for being always willing to help. Gera, thank you for your help with education. Daantje, thank you for increasing both my social and my structural job resources!

Lionel, thank you for being in my life and for reminding to me as many times as it takes that everything is OK, till it gets in my head. For that and for many more reasons that I cannot develop here due to logistics/ bureaucratic reasons -being my other paronymph is only one of them- you are a super-hero for me! Julien and Yannick, you are gangsters! Bedankt dat jullie mij geaccepteerd hebben. Ik bewonder jullie allebei! Evelien and Igor, thank you for the gezelligheid and for showing to me that real life is cooler than the best film scenarios!

Angeliki, Maria and Nikos, thank you for being always there for me. Always. In good times and in bad times, in real-life times and in skype times. You are my frame of reference!

I want to thank all my friends for being my friends and for making everything more worthwhile. As for those who do not live in Holland, I thank them for keeping in touch, for visiting me in Holland, for meeting up for coffee in Athens or elsewhere, for their e-mails, their phone-calls. No matter where they live, I thank my friends, Greek doll (Mirella), Maltese doll (Maria), Mata and the crazy Kanarian family (Kira-Maria, Cleri, Antreas), Vikentios, Maria-Io, Nikoletta, Maggie, Rahul, Yuliya, Ioana, Dorothea, Claire, Yang. Laura, thank you for your positive energy, for keeping in touch from the other side of the world and for the big honour you did me recently.

Tonny, thank you for your help with the lay-out of this book!

Theater, oh theater, thank you for giving me an unbearable but beautiful double life. Dorothea, thank you for being the bridge from my Greek theatre life to my Dutch theatre life. People from Empty Moments, Yuliya, Ioana, Dorothea, Claire, Yang, Raffaella and the rest, thank you for this most dramatic, intense, bizarre, very full and very empty experience. Ioana, thank you for opening up the “hut” of your soul and letting me in and for the Filter experience. Jurre, thank you for the music, the songs I’m singing!

Last but not least, I want to thank my family, my parents and my brother Petros, for their support. Nothing of all this would have ever been possible if it was not for the love and dedication of my parents, therefore, this thesis is dedicated to them. *Τίποτα απ’ όλα αυτά δεν θα ήταν εφικτό χωρίς την αγάπη, την στήριξη και την αφοσίωση των γονιών μου, γι’ αυτό και τους αφιερώνω το βιβλίο αυτό.*

ISBN: 978-94-6182-286-4

**Printed by**

Off Page, Amsterdam

**Layout**

Tonny Sampiemon, TS design

**Cartoon**

[www.glasbergen.com](http://www.glasbergen.com)

**Cover collage & photo**

Lionel Goyet

