



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieve International Excellence

BURDEN OR RESOURCE:
EXPLORING THE PERSONAL OUTCOMES OF
PROACTIVE BEHAVIOUR

FRANCESCO CANGIANO
(BSc, MSc)

THIS THESIS IS PRESENTED FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY
OF ORGANISATIONAL BEHAVIOUR OF THE UNIVERSITY OF
WESTERN AUSTRALIA

UWA BUSINESS SCHOOL

2017

AUTHOR'S DECLARATION

I, Francesco Cangiano, certify that:

This thesis has been substantially accomplished during enrolment in the degree.

This thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

The work is not in any way a violation or infringement of any copyright, trademark patent, or other rights whatsoever of any person.

The research involving human data reported in this thesis was assessed and approved by the University of Western Australia Human Research Ethics Committee (RA/4/1/5004 & RA/4/1/6606).

This research was supported by an Australian Government Research Training Program (RTP) Scholarship.

Student: Francesco Cangiano



Coordinating Supervisor: Professor Sharon K Parker



Date: 09/11/2017

ABSTRACT

The increasing complexity and uncertainty in today's work context has emphasised the importance of proactive behaviour (self-initiated and future-oriented actions to bring about change) in fostering individual and organisational effectiveness. Considerable research supports the importance of proactivity in this regard. However, far less is known about the personal outcomes of proactive behaviour for employees. The aim to this thesis is to propose (and test) a model of the individual consequences of proactive work behaviour that takes into consideration both positive and negative outcomes. Specifically, I argue that two potential pathways exist: the resource-generation pathway identifies desirable consequences of proactivity and the way in which being proactive at work can fuel a sense of self-determination, and generate positive energising emotions. The strain pathway, in contrast, draws upon the stressor-detachment framework (Sonnentag & Fritz, 2015) and ego depletion theory (Baumeister, 1998) to describe how proactive behaviours might in some situations backfire on employees by depleting energy, and harming their life outside of work. I argue that whether proactivity generates negative personal outcomes for employees depends on two key moderators: the context in which proactive behaviour is carried out and ones' motivations to be proactive. Specifically, in this research I focus on the role that intrinsic work motivation and punitive supervision play in

shaping the outcomes of proactive behaviour.

In chapter 1 of this thesis, I provide a general introduction to proactive work behaviour and to the energy theories that were drawn upon in this research, as well as an overview of the thesis. Chapter 2 presents a comprehensive review of the proactivity literature. Chapter 3 is a conceptual paper that lays out the overall model of its personal consequences. Hypotheses drawn from the dual-pathway model are then tested in two diary studies: in chapter 4 I consider both the resource-generation and the strain pathway simultaneously and I explore the moderating role of punitive supervision. Chapter 5 features a second longitudinal study that focuses more specifically on the strain pathway and examines how individuals' intrinsic motivation shapes the effects of proactive work behaviour on psychological detachment and recovery via work-life conflict. Finally, in chapter 6, I discuss the theoretical and practical contributions of the thesis as a whole and propose a broader model of the personal consequences of proactivity to guide future research.

TABLE OF CONTENTS

| | |
|---|------|
| Author's Declaration | iii |
| Abstract | v |
| Table of Contents..... | vii |
| List of Tables | xi |
| List of Figures..... | xiii |
| Acknowledgements | xv |
| Statement of candidate contribution | xvii |
| CHAPTER 1 General introduction | 1 |
| 1.1. Background..... | 1 |
| 1.2. Aims and objectives of this thesis | 3 |
| 1.3. Overview of the chapters | 6 |
| CHAPTER 2 Literature review on proactive behaviour | 13 |
| 2.1. Introduction: defining proactive behaviour | 14 |
| 2.2. Proactive behaviour: a review..... | 17 |
| 2.2.1. Proactivity as a process | 17 |
| 2.2.2. Situational antecedents of proactivity | 18 |
| 2.2.3. Leadership and proactivity | 22 |
| 2.2.4. Individual differences | 24 |
| 2.2.5. Motivational underpinnings of proactive behaviour | 27 |
| 2.2.6. Outcomes of proactivity | 31 |
| CHAPTER 3 A model of the personal consequences of proactive behaviour | 35 |
| 3.1. Introduction | 36 |
| 3.2. Positive well-being outcomes of proactivity | 37 |
| 3.3. Well-being outcomes of proactive behaviour: resource-generation pathway..... | 40 |

| | | |
|-----------|---|-----|
| 3.3.1. | A self-determination perspective: satisfaction of basic needs as a mechanism..... | 40 |
| 3.3.2. | Self-efficacy as a consequence of proactivity: a mastery mechanism..... | 41 |
| 3.3.3. | A broaden and build approach: affect as a mechanism..... | 44 |
| 3.4. | Negative outcomes of proactivity: a strain pathway..... | 47 |
| 3.4.1. | The resource-demanding nature of proactivity | 48 |
| 3.4.2. | The moderating role of feedback and punitive supervision..... | 52 |
| 3.4.3. | Autonomous vs. controlled motivation as a moderator of the effects of proactivity | 60 |
| 3.4.4. | Proactive behaviour and life outside of work | 63 |
| 3.5. | Future research..... | 66 |
| 3.6. | Conclusions..... | 66 |
| CHAPTER 4 | Daily well-being effects of proactive behaviour..... | 68 |
| 4.1. | Foreword..... | 69 |
| 4.2. | Introduction..... | 71 |
| 4.2.1. | A resource-generation pathway of proactive work behaviour | 76 |
| 4.2.2. | A strain pathway of proactive work behaviour | 79 |
| 4.3. | Method..... | 83 |
| 4.3.1. | Sample..... | 84 |
| 4.3.2. | Procedure..... | 84 |
| 4.3.3. | Measures | 85 |
| 4.3.4. | Analytic Strategy | 88 |
| 4.4. | Results..... | 90 |
| 4.4.1. | Test of hypotheses..... | 92 |
| 4.5. | Discussion..... | 96 |
| 4.5.1. | Strengths and Limitations..... | 101 |
| 4.5.2. | Future Research..... | 104 |
| CHAPTER 5 | When taking charge creates work-life conflict and impairs detachment..... | 109 |
| 5.1. | Foreword..... | 110 |
| 5.2. | Introduction..... | 111 |
| 5.2.1. | Taking charge, intrinsic motivation and work-life conflict | 114 |
| 5.2.2. | Moderating role of intrinsic motivation..... | 116 |
| 5.2.3. | The effects of work-life conflict on detachment..... | 118 |
| 5.2.4. | Detachment and recovery..... | 119 |

| | | |
|----------------------------------|--|-----|
| 5.3. | Methods..... | 120 |
| 5.3.1. | Sample | 120 |
| 5.3.2. | Measures..... | 122 |
| 5.4. | Results..... | 123 |
| 5.4.1. | Test of hypotheses..... | 127 |
| 5.5. | Discussion..... | 129 |
| 5.5.1. | Theoretical and practical implications | 130 |
| 5.5.2. | Limitations and future research | 131 |
| CHAPTER 6 | General Discussion..... | 135 |
| 6.1. | Summary of findings..... | 135 |
| 6.2. | Overall theoretical contributions..... | 137 |
| 6.3. | Practical implications..... | 139 |
| 6.4. | Limitations and future research | 142 |
| 6.5. | Conclusions | 153 |
| Appendix A | | 157 |
| Appendix B | | 161 |
| Consolidated Reference List..... | | 165 |

LIST OF TABLES

| | |
|--|-----|
| Table 1. Types of Proactive Work Behaviours | 17 |
| Table 2. Means, Standard Deviations and Intercorrelations of study 1 variables | 91 |
| Table 3. Means, Standard Deviations, and Correlations among Study 2 Variables | 126 |
| Table 4. Factor Loadings and Alphas for Punitive supervision, Transformational Leadership Dimensions, Developmental leadership and Team Climate..... | 157 |

LIST OF FIGURES

| | |
|--|-----|
| Figure 1. Overall model for the thesis and how chapters 4 and 5 link to it..... | 12 |
| Figure 2. Hypothesised personal outcomes of proactive work behaviour..... | 39 |
| Figure 3. Overview of the variables considered in Chapter 4..... | 70 |
| Figure 4. Research Model..... | 75 |
| Figure 5. Summary of the daily effects of proactive work behaviour on vitality (via perceived competence) and detachment (via anxiety). | 94 |
| Figure 6. Perceptions of punitive supervision as a moderator of the within- subject relationship between proactive work behaviour and work anxiety, controlling for morning anxiety..... | 95 |
| Figure 7. Overview of the variables considered in Chapter 5..... | 110 |
| Figure 8. Hypothesized Research Model..... | 112 |
| Figure 9. Intrinsic motivation moderates the effect of taking charge on work-life conflict. | 128 |
| Figure 10. Path analysis of the effects of taking charge on detachment, via work-life conflict | 129 |
| Figure 11. Example survey questions as they appeared to participants..... | 161 |

ACKNOWLEDGEMENTS

First and foremost, I would like to express my sincere gratitude to my thesis advisor, Sharon Parker, for her patient guidance, enthusiastic encouragement and continued support throughout my candidature. I feel deeply privileged to have had the opportunity to work with such a talented and passionate person. Indeed, I owe my success in completing this thesis to her exceptional mentorship and dedication. She helped me develop not only on a professional level, but on a more personal level too. I am also thankful to my associate supervisor, Gillian Yeo, for her precious insights and help, especially regarding the statistical analyses of this thesis.

There are many others without whom this research could not have been completed: I am grateful to the support I am thankful to Lena Wang, Dee Roche, Jenny Hoffman and the other staff at the UWA Accelerated Learning Laboratory for helping me collecting data for my research, as well as the MBA students that generously volunteered to participate in my research. I sincerely appreciate the help and support received from the administrative staff of the UWA Business School. In particular, I am very grateful to Adam Hearman, Mei Han, Jovana Gurbanski and Kirsty Seitz.

On a more personal level, I would like to thank my fellow students and co-workers, especially Hendrik Braun and Daniel Schepis, for making it more fun to come to work every day. Finally, I am deeply grateful to my family, in particular to my gorgeous wife and to my loving mother, thank you for believing in me and supporting me throughout this long journey, this thesis is dedicated to you.

This research was supported by an Australian Government Research Training Program (RTP) Scholarship.

STATEMENT OF CANDIDATE CONTRIBUTION

This thesis contains published work and/or work prepared for publication, some of which has been co-authored. The bibliographical details of the work published from this thesis are outlined below

PUBLICATIONS DERIVED FROM THIS THESIS

Publications and Submissions

Cangiano, F. & Parker, S. K. (2016). Proactivity for mental health and well-being. In S. Clarke, T. Probst, F. Guldenmund & J. Passmore (Eds.), *The Wiley-Blackwell Handbook of the Psychology of Occupational Safety and Workplace Health*, Wiley-Blackwell.

Cangiano, F., Parker, S. K. & Yeo, G. (revise & resubmit). When proactivity wears you out (and when it doesn't): Energy-generating and energy-depleting effects of daily proactive work behaviour. *Journal of Organizational Behaviour*.

Cangiano F., Parker, S. K. & Ouyang, K. (under review). Too proactive to switch off: When taking charge creates work-life conflict and impairs detachment. *Journal of Applied Psychology*.

Conference Presentations

Cangiano, F., Parker, S. K.. & Yeo, G. (2015, August). Proactivity and well-being: A diary study on the role of perceived competence. In C. M. Kelly, *Enrichment Across Boundaries: New Perspectives on the Work-Life Interface*. 75th Annual Meeting of the Academy of Management, Vancouver, Canada.

Cangiano, F., Parker, S. K.. & Yeo, G. (2016, August). When proactivity wears you out (and when it doesn't): Role of work demands & leader responsiveness. In S. Fatimah, *Proactivity Research: New Directions and Concepts*. 76th Annual Meeting of the Academy of Management, Anaheim, United States.

Cangiano, F., Ouyang, K. (2017, August). Too proactive to switch off: When taking charge creates work-life conflict and impairs detachment. Paper to be presented at the 77th Annual Meeting of the Academy of Management, Atlanta, Georgia, USA.

PUBLICATIONS RELATED TO THIS THESIS

Publications extending the discussion on proactivity and well-being.

Cangiano, F., & Bindl, U. K. (2016). The 'hot' side of proactivity: Exploring an affect-based perspective on proactivity in organizations. In S. K. Parker & U. K. Bindl (Eds.), *Proactivity at Work: Making Things Happen in Organizations*, Routledge.

Ouyang, K., Lam, W., Parker, S. K., & **Cangiano, F.** (under review). A dual process model: Examining when and how taking charge invigorates or depletes employees. *Journal of Applied Psychology*.

Conference presentations that extend the discussion on well-being and proactivity to surgical settings.

Cangiano, F., Parker S. K., Flemming S. A., & Hamdorf, J. (2015). *Sleep deprivation and fatigue in surgical performance: A qualitative study*. Paper presented at RACS Annual Scientific Conference, Perth.

Cangiano, F., Parker S. K., Flemming S. A., & Hamdorf, J. (2015). *Sleep deprivation and fatigue in surgical practice: Work performance and well-being*. Paper presented at the 11th Industrial and Organisational Psychology Conference of the Australian Psychological Society APS, Melbourne, Australia.

Student signature:



Date: 09/11/2017

I, Sharon Parker, certify that the student statements regarding their contribution to each of the works listed above are correct.

Coordinating Supervisor Signature:



Date: 09/11/2017

CHAPTER 1

GENERAL INTRODUCTION

1.1. BACKGROUND

In today's globalized economy, where organisations are faced with complex environments that pressure them to quickly adapt and respond to change, it is no longer possible to pre-specify all the tasks behaviours and required from employees. Workers are increasingly expected to use their own initiative and figure out by themselves how to carry out their job successfully (Griffin, Neal, & Parker, 2007). For instance, employees can craft their work environment by proposing and/or applying new ideas in their work environments, or identify and prevent potential problems before they occur. They can also actively seek feedback and suggestions from peers and supervisors to check whether they are meeting the expectations set for them. These behaviours are encapsulated in the concept of proactive behaviour, which refers to self-initiated, anticipatory and change-oriented behaviour (Parker, Williams, & Turner, 2006).

Because of its importance, research on proactive behaviour at work has primarily focused on the personal and environmental factors that facilitate the onset of proactive behaviour (Crant, 2000; Parker, 2000). This attention has produced a significant amount of research on the subject: over the last 25 years, researchers

have examined the antecedents of proactive behaviour (e.g., Clegg, Unsworth, Epitropaki, & Parker, 2002; Parker & Collins, 2010), as well as the personal and situational contingencies that shape when proactivity has its effects (Grant & Ashford, 2008; Thomas, Whitman, & Viswesvaran, 2010; Wu & Parker, 2014). From a career perspective, previous studies have shown that employees with a proactive personality tend to receive better ratings in performance appraisals, are more likely to be promoted, and have more successful careers compared to non-proactive employees (e.g., Belschak & Hartog, 2010; Blickle, Witzki, & Schneider, 2009; Crant, 2000; Grant, Parker, & Collins, 2009; Vos, Clippeleer, & Dewilde, 2009).

However, to date there has been little attention given to the personal consequences of engaging in proactive behaviour, especially from a well-being perspective. Not much is known regarding how proactive behaviour affects employees' well-being and life outside work. This gap is indeed remarkable, because if proactivity is beneficial for organisational effectiveness and employees' careers, and yet also backfires on individuals' well-being, then the sustainability of this way of behaving at work is at risk. Therefore, investigating the personal consequences of proactive behaviour is vital, not only because this outcome is important in and of itself for workers' well-being (Danna & Griffin, 1999), but because the findings will ultimately enhance understanding about how to maintain proactivity over the longer-term. I seek to help move this literature forward by proposing and testing a dual-pathway model of the personal consequences of proactivity on well-being.

1.2. AIMS AND OBJECTIVES OF THIS THESIS

The overarching aim of this thesis is to explore the personal consequences of proactive work behaviour from a well-being perspective. In doing so, I propose and test a theoretical model of the personal consequences of proactivity.

Specifically, I argue that two potential pathways exist: the resource-generation pathway identifies desirable consequences of proactivity and the way in which being proactive at work can fuel a sense of competence, and generate positive energizing affective experiences (vitality). The strain pathway, instead, considers the potentially negative outcomes of proactivity for employees and identifies the circumstances that moderate these effects. Particularly, I explore the moderating role of intrinsic work motivation and punitive supervision in shaping the outcomes of proactivity for employees.

To define and clarify the objectives of this thesis it is necessary to start with the assumption that engaging in proactive behaviour may yield both short-term/immediate personal consequences that can be observed on a daily basis (e.g., fluctuations in vitality), as well as longer-term consequences that (e.g., resilience), which may occur over extended periods of time. This thesis is primarily aimed at exploring the personal outcomes of proactive behaviour in the short-term. While various long-term consequences might be hypothesized, this thesis aims to investigate the more immediate outcomes of proactivity, such as those associated with a particular proactive episode. Nonetheless, I briefly outline in the last chapter of this thesis a broader theoretical model that considers also possible medium and long-term outcomes of proactivity that go beyond the purpose and scope of this investigation, in the hope that it will stimulate future

research endeavours in this field. Moreover, it is essential to note that proactive behaviour is distinct from proactive personality, which refers to an individual's stable tendency to engage in proactivity (Fuller & Marler, 2009). This thesis is aimed at exploring the consequences of proactive behaviours and the role that personal factors and situational contingencies play in shaping these outcomes.

Second, although personal differences exist in individual's tendency to engage in proactive behaviour (i.e., proactive personality), it is important to note that this thesis focuses on the concept of proactivity as a way of behaving, rather than as a trait (Parker & Bindl, 2017). The focus on proactivity as a behaviour allows considering more closely how situational contingencies motivate proactive behaviour and shape its consequences. In this thesis I may refer to proactive behaviour as 'proactivity': this term is to be considered as a synonym of proactive behaviour (distinct from proactive personality).

In line with the taxonomy of proactive behaviour proposed by Parker and Collins (2010), in this thesis I focus primarily on proactive behaviours aimed at changing the internal organisational environment (e.g., taking charge, personal initiative, voice, idea implementation), as opposed to proactive strategic behaviour (e.g., issue selling) or proactive person-environment fit behaviour (e.g., career initiative, job crafting).

A further important assumption to consider is that the present manuscript focuses on the personal consequences of proactivity primarily from a well-being perspective. In general, well-being encompasses two correlated components: judgments of satisfaction with one's life (in terms of health, relationships, work

and leisure) and affect balance (i.e., having a preponderance of positive feelings and rarely negative feelings) (Fisher, 2010). Although scholars suggested a link between proactivity and indicators of well-being such as career achievements (Seibert, Kraimer, & Crant, 2001), the relationship between proactivity and employees' well-being still remains largely unknown. In fact, studies conducted on this topic have mainly focused on employee well-being as an antecedent of proactivity, showing that well-being predicts proactive behaviours (Bindl, Parker, Totterdell, & Hagger-Johnson, 2012; Hahn, Frese, Binnewies, & Schmitt, 2012; Sonnentag, 2003).

Only a small number of scholars have considered the well-being consequences of proactive behaviour (Bolino, Valcea, & Harvey, 2010; Fay & Hüttges, 2016; Strauss & Parker, 2014; Wu, Deng, & Li, 2017). Yet, from a sustainability perspective, we need to understand how proactivity affects well-being because the latter predicts the former. This is also an interesting issue from a work-life interface viewpoint (Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006): does being proactive at work negatively interfere with one's private life and undermine the detachment process, or does it benefit employees through positive spillover effects? Some other example questions relevant to this topic include: Does engaging in proactive behaviour elicit positive energising emotional reactions? If so, how and why this happens? Can proactivity at work interfere with life outside of work by placing additional demands on employees? How does one's work motivation shape the personal outcomes of proactivity?

Ultimately, I propose that proactivity is likely to affect employees' well-being in multiple ways - both positively and negatively - and that certain moderating

variables and mediating processes need to be considered in understanding these effects.

1.3. OVERVIEW OF THE CHAPTERS

The body of this thesis is composed of three papers. Figure 1 shows the overall research model of the thesis and illustrates how the three papers fit together.

Chapter 2 presents a detailed review of the literature on proactive behaviour, including clarifying the core and defining features of this concept. This review is essential because it shows the current state of research on proactivity and provides the basis for the justification of this research. The first part of this chapter includes an explanation of the characteristics and unique features of proactivity that differentiate this behaviour from other related - yet distinct - organisational constructs. The second part of the chapter considers the situational and dispositional antecedents of proactive behaviour, as well as its motivational mechanisms. Finally, the last section considers the outcomes of proactive behaviour and paves the way for the next chapter by highlighting the importance of considering the well-being consequences of proactivity.

In *Chapter 3*, I present a conceptual paper (Cangiano & Parker, 2015) that 'sets the scene' by describing an overall model of the personal consequences of proactivity (Figure 1). The primary theory underpinning the model is conservation of resources theory. Conservation of resources theory (COR) posits that individuals have an innate drive to create, retain, protect and foster resources personal resources (Gorgievski & Hobfoll, 2008; Hobfoll, 1989).

Resources can either have an intrinsic value (e.g., support, status, self-esteem, autonomy) or an instrumental value (e.g., money, shelter). According to COR theory, stress ensues when these resources are threatened with loss, lost, or when significant resource investments do not translate into resource gains. I draw upon conservation of resources theory to explain how proactive behaviour - due to its self-initiated and agentic nature - can be instrumental for employees to accumulate resources that benefit their well-being. Nonetheless, proactivity can at the same time consume resources and backfire on employees' well-being due to the demands and personal risks associated with pursuing proactive goals (Bolino, Valcea, et al., 2010).

Specifically, in Chapter 3 I propose two potential pathways of personal consequences. The resource-generation pathway identifies the positive consequences of proactivity and the way in which being proactive at work can boost self-efficacy perceptions, generate a sense of self-determination, and elicit positive emotional reactions (i.e., vitality), which in turn can fuel further proactivity. The strain pathway, in contrast, shows how proactive behaviours might in some situations backfire on employee well-being by depleting resources, generating anxiety and causing work-life conflict. For example, drawing upon COR, I elaborate on how receiving negative feedback from supervisors and/or co-workers may trigger a protection of resources mechanism (Hobfoll, 1989; Hobfoll & Shirom, 2001).

To understand the two pathways in more depth I draw upon additional theories, including self-determination theory (Ryan & Deci, 2000) and the broaden-and-build theory of positive emotions (Fredrickson & Branigan, 2005) to examine the

ways in which engaging in proactive behaviour may help generate resources. According to self-determination theory, there are three basic and innate psychological needs that are the basis of intrinsically motivated behaviour (Ryan & Deci, 2000): the need for competence, autonomy, and relatedness. Deci and Ryan maintain that fulfilment of these needs is essential for human well-being; an assertion that is supported by many studies (Deci & Ryan, 2002). Due to its nature, proactive behaviour can substantially contribute to employees' well-being via the satisfaction of one's basic psychological needs: as a self-initiated behaviour, proactive behaviour is likely to be fuelled by autonomous motivation, as opposed to more repetitive core tasks and activities that may require effortful volition to be carried out, thus satisfying the need for autonomy. Proactive behaviour may also fulfil the need of relatedness (Strauss & Parker, 2014) by actively shaping interpersonal relationships and social interactions (Grant & Ashford, 2008). Finally, in light of its change-oriented focus, proactivity may provide opportunities to experience a sense of challenge at work, hence eliciting feelings of competence and mastery (Strauss & Parker, 2014). According to Ryff (1989), competence (defined as environmental mastery) is vital to an individual's psychological well-being: one's perceived ability to manipulate and control the environment can greatly contribute to individuals' well-being.

The broaden-and-build theory of positive emotions (Fredrickson & Branigan, 2005) seeks to explain how and why positive emotions promote human flourishing. According to Fredrickson, experiencing feelings of positive affect helps people to broaden their awareness and encourage novel and exploratory thoughts/actions. Over time, this process generates a sort of 'virtuous circle' that

helps to create skills and resources. In turn, the newly acquired resources increase one's psychological resilience and the ability to cope with stressors. In chapter 3, I elaborate on how proactive behaviour may be instrumental in obtaining resources and how positive emotions generated by engaging in this behaviour may benefit employees' well-being by helping them accumulate further resources.

The strain pathway additionally draws upon ego depletion theory to apply the concept of regulatory depletion to the context of proactive behaviours. According to ego depletion theory, behaviours, thoughts or actions that require self-regulation and effortful volition drain energy, and result in a state of ego depletion (Baumeister, Bratslavsky, Muraven, & Tice, 1998), which is defined as “a temporary reduction in the self's capacity or willingness to engage in volitional action (including controlling the environment, controlling oneself, making choices, and initiating action), caused by prior exercise of volition” (Baumeister (Baumeister et al., 1998, p. 1253). Research in this field suggests that this ego depletion effect occurs across various domains, for example: controlling thoughts, regulating emotions (Muraven, Tice, & Baumeister, 1998), making decisions (Vohs et al., 2008), helping other people (DeWall, Baumeister, Gailliot, & Maner, 2008), and resisting persuasion (Wheeler, Briñol, & Hermann, 2007). I argue that the extent to which proactivity drains regulatory resources and causes ego depletion is closely tied to the motivations that lead people to engage in proactive behaviour, such that proactivity will be depleting only when individuals are not intrinsically motivated in performing the behaviour.

Having established the overall model in Chapter 3, in *Chapter 4* I present an

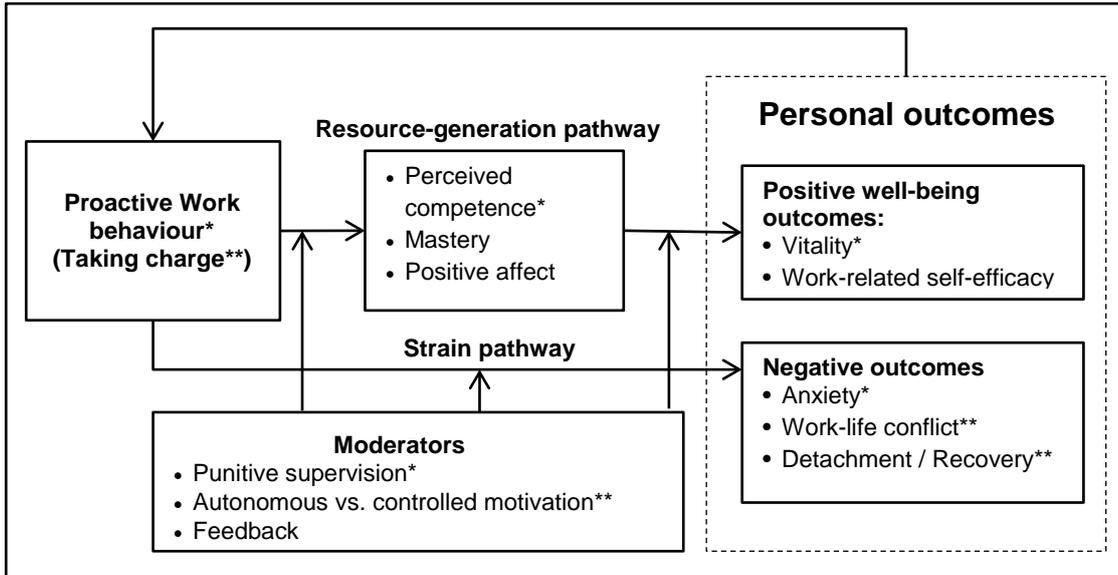
empirical paper (Cangiano, Parker, & Yeo, 2016) that tests the dual pathway in the model using a diary study methodology (Ohly, Sonnentag, Niessen, & Zapf, 2010). The study has a particular emphasis on the short-term affective outcomes of proactivity – that is, vitality and anxiety. An overview of the variables of the model examined in chapter 3 can be seen in Figure 1. Vitality reflects the employee’s feeling of vigor and aliveness at the end of the workday (Ryan & Frederick, 1997), and thus reflects the accumulation of energy over the work day. I contend that this process is similar to that of accumulating resources in conservation of resources theory (COR; Hobfoll, 1989). On the other hand, proactive work behaviour can also consume resources and – under some circumstances – backfire on employees and cause anxiety: this is because proactivity is by definition a challenge to the status quo and is therefore psychologically risky (Bolino, Valcea, et al., 2010). In Chapter 4 I explore the role of punitive supervision (i.e., supervisors’ negative reactions to employees’ mistakes) in moderating the negative outcomes of proactivity: that is, engaging in proactive behaviour generates anxiety after work only if the supervisor tends to blame employees for their mistakes.

Chapter 5 is a further diary study (Cangiano, Parker, & Ouyang, 2017) that zooms in the strain pathway and considers the personal consequences of proactivity from a work-life interface perspective. Figure 1 shows in detail which variables are examined in chapter 4 in relation to the overall model. In particular, this study explores the moderating role of intrinsic motivation in determining the extent to which proactivity drains regulatory resources and causes work-life conflict, thus undermining the process of psychological detachment from work demands

(Sonnentag & Bayer, 2005; Sonnentag, Binnewies, & Mojza, 2010; Sonnentag & Fritz, 2015; Sonnentag & Krueger, 2006). Drawing upon ego depletion and self-determination theory (Baumeister et al., 1998; M S Hagger, Wood, Stiff, & Chatzisarantis, 2010; Ryan & Deci, 2000, 2008), I identify intrinsic motivation as a crucial boundary condition for such effects and demonstrate that proactive behaviour generates work-life conflict and undermines detachment only when the individual's intrinsic motivation is low.

Finally, in *Chapter 6* I discuss the overall findings of this research and elaborate on how the papers included in this thesis contribute collectively to the body of literature on proactivity and advance our knowledge on the subject. I also acknowledge the main limitations of this work and identify key theoretical issues that need to be addressed in future research. With respect to the latter, I expand the theoretical model presented in Chapter 4 to include possible long-term outcomes of proactive behaviour that go beyond the scope of this thesis. Finally, I outline practical implications for managers and practitioners, such as how to create a work environment that encourages proactive behaviour that is good for employees' well-being and how to best respond to employees' proactive efforts.

Figure 1. Overall model for the thesis and how chapters 4 and 5 link to it



Note: * Variables investigated in Study 1 (Chapter 4)

** Variables investigated in Study 2 (Chapter 5)

CHAPTER 2
LITERATURE REVIEW ON PROACTIVE
BEHAVIOUR

2.1. INTRODUCTION: DEFINING PROACTIVE BEHAVIOUR

Proactive behaviours are self-initiated and future-oriented actions that employees take to change and improve themselves or their work environment (Parker et al., 2006). Being proactive can occur in several domains: for example, by anticipating problems and implementing ideas to prevent them from occurring (Crant, 2000; Frese & Fay, 2001), or by actively seeking feedback from others about one's performance. Recent developments in the context of work have heightened the importance of proactive behaviour (Grant et al., 2009). First, the environment in which organizations operate has become increasingly complex and uncertain. Therefore, employees and managers need to use their own initiative to determine what needs to be done in a given situation (Griffin et al., 2007). Second, high levels of competition require greater capacity to innovate in order to create competitive advantage (Crant, 2000). Proactivity is an important element of innovation (Unsworth & Parker, 2002). Third, career structures are becoming more unpredictable and flexible, requiring employees to be self-directed and to take charge of their careers (Parker & Collins, 2010). Proactivity is thus a driving force for individual creativity, innovation, adaptability and flexibility, and hence is crucial for organizations' success.

The term proactive combines the prefix *pro* (in Greek 'before') with the word *active* (from the Latin *agere*, 'to act'). The term proactive was first introduced to the public domain in the 40s by Austrian neuropsychiatrist Viktor Frankl (1946), who used the word to indicate a person taking responsibility for his/her own life, as opposed to being controlled by the surrounding environment. Proactive

behaviour was first explicitly studied in the 80s in the context of unemployment Fryer, Payne, and Jahoda (1984) and feedback seeking behaviour (Ashford & Cummings, 1985).

Although the term proactivity has been applied to a multitude of organisational behaviours across different topic domains, research has identified two core aspects that define any particular behaviour as proactive. First, proactive behaviour is anticipatory: it involves thinking ahead about a future situation to prevent future problems or make the most of forthcoming opportunities. The second defining element of proactivity is that it involves taking control of a situation (or an anticipated situation) by initiating change. Thus, anticipative thinking and taking control of the situation are key features of proactivity (Parker et al., 2006). Inherent in both these elements is self-initiation. That is, scholars tend to agree that proactivity is self-starting behaviour in which the individual him or herself initiates action, rather than being directed to act. For instance, following instructions to improve a work procedure does not constitute proactivity, whereas self-initiating the implementation of solutions to problems is proactive.

Proactivity has been distinguished from less future-focused and change oriented behaviours such as core job performance, also referred to as job proficiency, and even adaptivity, which is concerned with adapting to change, rather than initiating it (Griffin et al., 2007). For example, from a performance perspective, employees are considered proficient on a given task based on the extent to which they are able to meet formalized requirements, implying clear standards against which performance can be assessed. Given its self-initiated nature, proactive

behaviour cannot be easily assessed against standards and indicators (Parker & Collins, 2010). Similarly, proactive career behaviour is distinct from other forms of career behaviour that are less self-initiated. For example, proactive feedback seeking is distinct from receiving feedback insofar as the former involves actively seeking out feedback rather than waiting for feedback to be given by someone else (Ashford & Cummings, 1985).

Importantly, in contrast to the idea that proactivity is a type of extra-role behaviour, the perspective I adopt here is that all kinds of work behaviour (e.g., task, extra-role, citizenship, safety) can be carried out more or less proactively (Griffin et al., 2007). For example, an individual can help another individual in a way that is proactive (e.g., anticipating that an individual might need help, and offering this support to them) or that is relatively passive (e.g., an individual might help another when requested). From this perspective, proactivity is a way of behaving, rather than a particular set of behaviours. Taking this idea further, some scholars (Bindl et al., 2012) have considered proactivity a multi-stage goal regulation process, which I elaborate in the next section. In Table 1 I present a summary of the various types of proactive work behaviour.

Table 1. Types of Proactive Work Behaviours

| | Definition from original author | Illustrative behaviour |
|-----------------------|---|--|
| Taking charge | Change-oriented behaviour aimed at improving how work is executed (Morrison & Phelps, 1999) | Trying to bring about improved work procedures |
| Voice | Making innovative suggestions / speaking up intended to positively contribute to the organisation (Van Dyne & LePine, 1998) | Speaking up during a meeting to communicate your views about workplace issues, regardless of whether others disagree with your views |
| Individual innovation | Generating new ideas and implementing them (S. G. Scott & Bruce, 1994) | Proposing and testing a new technique or product idea |
| Problem prevention | Self-directed, anticipatory actions to prevent work problems from occurring (Frese & Fay, 2001) | Trying to identify the root cause of a frequently occurring problem to prevent its re-occurrence in the future |

Note: Adapted from Parker & Collins (2010).

2.2. PROACTIVE BEHAVIOUR: A REVIEW

2.2.1. PROACTIVITY AS A PROCESS

Rather than being considered as a single one-off event in time, proactivity can be conceptualized as a multi-stage goal process that unfolds over time. In 2012, Bindl and colleagues proposed and found empirical support across two studies

for a 4-stage model of proactivity that includes envisioning (imagining a better future situation), planning (preparing a plan to bring about the desired change), enacting (the actual observable proactive behaviour) and reflecting (reflection and learning from the behaviour performed). This 4-stage model is based upon research on goal regulation suggesting to distinguish between goal generation (i.e., anticipating desired future goals and developing a strategy to reach them) and goal striving components (i.e., mobilising resources to achieve such goals) (Kanfer & Ackerman, 1989). Distinguishing these stages is argued to be essential because an employee could be able to envision a better situation but not be motivated or skilled enough to make plans to achieve the desired outcome. In a similar vein, a worker could have sufficient autonomy to implement change that benefits the organisation, but lack the cognitive resources to envision the proactive behaviour in the first place. Differentiating these phases unleashes a plethora of opportunities for researchers and practitioners to better understand how proactivity is performed and the best approach to motivate and encourage such behaviour. I will return to this idea later when discussing the well-being outcomes of proactive behaviour

2.2.2. SITUATIONAL ANTECEDENTS OF PROACTIVITY

Unsurprisingly, given the importance of proactive behaviour in the workplace, efforts have been made to understand what kind of environment encourages proactivity, and which people are more likely to engage in such behaviour (Parker et al., 2006). Amongst the environmental antecedents of proactivity, scholars have considered how work design impacts on proactivity. Work design indicates “how jobs, tasks, and roles are structured, enacted, and modified, as well as the

impact of these structures, enactments, and modifications on individual, group, and organisational outcomes.” (Grant & Parker, 2009, p. 319). The characteristics of a job are often an important predictor of proactivity. For example, having opportunities to interact with co-workers predicts proactive behaviours such as network-building and feedback-seeking (Wanberg & Kammeyer-Mueller, 2000). The degree of autonomy is another important contributor of proactivity: when employees can decide by themselves what to do how to carry out their tasks in order to achieve the goal, they are more likely to engage in proactive behaviour. This assertion is supported by research using multi-source data (e.g., supervisor ratings) and longitudinal designs (Frese, Garst, & Fay, 2007; Parker et al., 2006). Recent meta-analyses also support the idea that autonomy (also referred to as job control) is associated with different forms of proactivity (Tornau & Frese, 2013). According to Parker (1998), autonomy stimulates proactivity because it allows people to master new tasks and to take on board greater responsibilities, thereby enhancing employees’ self-efficacy, which is an important motivational driver of proactivity (Parker, Bindl, & Strauss, 2010). Job control also facilitates the development of more flexible role orientations in which individuals’ define their responsibilities broadly, which is a further motivational driver of proactive behaviour (Parker, 2000; Parker, Wall, & Jackson, 1997).

Nonetheless, the relationship between job autonomy and proactive behaviour is not necessarily linear and its nature may vary depending on the form of proactivity enacted. In a study with front-line hospital nurses, Tangirala and Ramanujam (2008) found a U-shaped relationship between autonomy and employee voice, suggesting that nurses were more likely to speak up about

problems when they had either high or low perceptions of job control.

Interestingly, moderate perceptions of job control were associated with less voice behaviour. According to Tangirala and Ramanujam (2008), employees are motivated to speak out when they have low job control because they are dissatisfied with the status quo. Conversely, nurses with high perceptions of job control tend to voice out their ideas and concerns due to an enhanced sense of confidence in their ability to influence the organisation and achieve the desired outcome. Overall, evidence seems to suggest that job autonomy/job control is a reliable predictor of proactivity, although the strength of such effect may vary depending of situational contingencies and the form of proactivity considered.

Another job characteristic linked to proactive behaviour is job complexity. Job complexity refers to the extent to which a job is multi-faceted and requires flexible and intricate thought processes to be successfully performed (Shalley, Gilson, & Blum, 2009). Job complexity has been associated with personal initiative and innovative behaviours (Frese et al., 2007; Ohly, Sonnentag, & Pluntke, 2006), suggesting that complex jobs promote a higher degree of flexibility and encourage employees to experiment with their work (Ohly & Schmitt, 2017). Employees in jobs with high complexity may also experience a sense of ambiguity, which is in turn associated with proactive behaviours, most notably feedback-seeking to reduce the perceived uncertainty. Unlike job autonomy, which can be considered as a necessary prerequisite for proactive behaviour, job ambiguity is more correctly conceptualised as a challenge, which motivates employees to be proactive in order to deal with it. Although through

different mechanisms, both job characteristics can significantly contribute to proactivity. Other work characteristics, such as accountability and responsibility for outcomes have been considered in relation to proactivity. On the one hand, being accountable for outcomes could promote proactivity by eliciting a sense of felt responsibility: if employees know that they are being held responsible for their actions, they are more likely to engage in proactive behaviour to ensure that the desired outcome is achieved (e.g., by proactively anticipating problems and preventing them from occurring in the future) (Fuller & Marler, 2009; Grant & Ashford, 2008). On the other hand, high accountability may undermine the sense of psychological safety in some employees, which could prompt them to minimise taking any unnecessary risks in case the proactive goal is not successfully achieved.

Research evidence suggests that support (both social and structural) can also encourage proactive behaviour. Social support refers to an individual's perceptions of availability and receipt of support, whereas structural support indicates the 'objective' provisioning of resources to employees (see Parker, Johnson, Collins, & Nguyen, 2012). The meta-analysis by Tornau and Frese (2013) provides support to the premise that social support is an important antecedent of proactivity. Drawing on conservation of resources theory (Hobfoll, 1989), Parker et al. (2012) explored the impact of structural support on proactive behaviour in a within-person quasi-experiment with hospital doctors. Findings revealed that structural support was associated with greater skill utilisation and proactive work behaviour. However, this effect was moderated by negative affect, such that the relationship was only observed among doctors who reported low levels of

negative affect. According to the authors, this is owing to the fact that employees use support in differential ways, depending on the perceived role overload: when workers are stressed they are more likely to use the provided support to complete their tasks at hand. Conversely, when stress levels are lowered, employees are more prone to utilise the support to engage in exploratory behaviour (e.g., proactive behaviour) to accumulate further resources.

Finally, research has studied organisational climate in relation to proactivity. Engaging in proactive behaviour may often mean changing existing work procedures and affecting the work of other people in the company. Due to its challenging component, proactive behaviour may be perceived as threatening by leaders and co-workers. For this reason, pursuing proactive goals may sometimes be perceived as 'risky' and employees may abstain from it to avoid possible conflict, backlash and reprimands. Unsurprisingly, previous studies have found that a sense of trust in the organisation predicts innovative behaviour (Clegg et al., 2002). Similarly, Baer and Frese (2003) found employees were more likely to be proactivity within organisations actively fostering a climate that encourages taking risks without repercussions.

2.2.3. LEADERSHIP AND PROACTIVITY

Research on leadership as an antecedent of proactivity has to date yielded somewhat inconsistent results (Frese & Fay, 2001; Parker & Wu, 2014), suggesting this is a complex relationship. Theoretically, leadership can influence proactivity not only by shaping the work environment, but also by influencing employees' willingness to engage in proactive behaviour. While various

leadership styles have been studied in relation to proactivity, transformational leadership is probably the most prominent. Transformational leaders stimulate and motivate their following by creating a shared vision of the future and a sense of meaning, which inspires them to transcend self-interests and act for the benefit of the group (Den Hartog & Belschak, 2012; Strauss, Griffin, & Rafferty, 2009). This leadership style encourages employees to engage in pro-social discretionary behaviours such as personal initiative and voice (Den Hartog & Belschak, 2012). In a recent review, Parker and Wu (2014) proposed multiple pathways through which team-oriented (e.g., transformational leadership) and person-oriented leadership inputs (leader-member exchange) can foster proactivity. For instance, leaders can enhance followers' self-efficacy by supplying them with opportunities to experience feelings of mastery at work (Bandura, 1982), and leaders can shape the work climate and the work design, which in turn can affect employees' likelihood of behaving proactively (e.g., see Parker et al., 2006).

While there is evidence for the positive effects of certain leadership styles of proactivity, it is plausible to expect that leadership may stifle it. This is because proactive behaviour is by definition challenging the status quo (Bindl & Parker, 2011; Griffin et al., 2007; Parker & Collins, 2010), and thus is not always welcome by leaders given that it may challenge their authority. For instance, Grant, Gino, and Hofmann (2011) found that while extroversion is a trait normally associated with leadership emergence and effectiveness, extroverted leadership is less effective when followers are proactive. This is because extroverted leaders are less receptive to proactivity (e.g., less likely to listen to and act upon employees'

suggestions).

2.2.4. INDIVIDUAL DIFFERENCES

In this section I review the literature that considered the individual traits and personal characteristics that predispose employees to behave proactively. Firstly, I consider proactivity in relation to the big-five model of personality and then I examine the relationship with other traits.

Among the big-five, proactive behaviour has been associated with the trait of conscientiousness (the tendency to be dependable, responsible and organised). This is because people high in conscientiousness are more dedicated in their work and therefore more likely to make suggestions for improvement, implement changes that benefit the organisation, and be persistent in achieving their proactive goals in spite of obstacles and challenges (Tornau & Frese, 2013). Nonetheless, other researchers have highlighted how the unique predicting ability of conscientiousness is somewhat reduced when considering other individual predictors of proactivity, such as proactive personality (Parker & Collins, 2010). Evidence linking conscientiousness with proactivity is therefore still somewhat inconclusive.

Openness to experience (one's disposition to consider new ideas and try new things) may also contribute to proactive behaviour because individuals high in this trait are more prone to think differently and consider implementing new ideas in the workplace. Meta-analyses have found a positive correlation between openness and voice, taking charge, feedback-seeking and personal initiative (Tornau & Frese, 2013), but such findings were not replicated in following

isolated studies when controlling for other individual factors (Wu, Parker, & De Jong, 2014). Overall, this suggests that there might be moderators in the relationship between openness to experience and proactivity that may account for these mixed findings.

The trait of extroversion (characterised by sociability, talkativeness, assertiveness and excitability) is arguably the big-five trait more consistently associated with certain forms of proactive behaviour (Tornau & Frese, 2013). This is because individuals high in extroversion are more likely to engage in social interactions, which can in turn fuel information and feedback-seeking behaviour. Extroversion has also been linked with voice (LePine & Van Dyne, 2001) and change-oriented citizenship behaviour (Chiaburu, Oh, Berry, Li, & Gardner, 2011). However, other scholars have speculated that extroversion may be a stronger driver for self-serving/self-directed proactivity, while it may not necessarily contribute to more 'pro-social' proactive behaviours that benefit the team or the organisation (Wu & Li, 2017).

Studies looking at neuroticism and proactivity (one's disposition to be moody and experience negative emotions such as anxiety and fear) have generally yielded inconsistent or non-significant results: While some have shown a negative relationship with proactive personality (Crant, 2000); Major, Turner, and Fletcher (2006) and feedback-seeking behaviour (Tidwell & Sias, 2005), other scholars failed to detect any relationships between proactivity and neuroticism (Bateman & Crant, 1993; Fay & Frese, 2001). Finally, meta-analyses suggest that the trait of agreeableness (the tendency to be compassionate during social interactions and avoid conflict with others) is generally not associated with

proactive behaviour (Tornau & Frese, 2013).

The most relevant personality construct in relation to proactivity is indeed proactive personality. The term proactive personality is generally referred to as the tendency to take action in order to influence one's environment (Bateman & Crant, 1993). This construct is distinct from the 'big-five' model of personality and uniquely identifies employees more predisposed than others to engage in proactive behaviour in a given situation (Bateman & Crant, 1993). Proactive personality has not only been linked with proactive behaviour, but also with a variety of desirable outcomes: empirical evidence reports that individuals high in proactive personality tend to perform better (Thompson, 2005), have a successful career (Van Dyne & LePine, 1998), and be more creative/innovative (Parker et al., 2006). Thus, it seems that proactive personality, via its effect on proactive behaviour, yields several individual and organizational positive outcomes

Other individual differences that predict proactive behaviour include goal orientations (Sonnentag, 2003), consideration of future consequences (Grant et al., 2009), and need for cognition (Wu et al., 2014). Employees' goal orientations influence and shape the direction of proactive behaviour. Individuals with a high learning goal orientation (i.e., one's preference to acquire new skills and mastering new situations) are more likely to engage in proactive citizenship (Parker & Collins, 2010) and taking charge behaviour (Bettencourt, 2004).

Conversely, while individuals with a performance-goal orientation (i.e., one's tendency to demonstrate and validate one's competence and obtain favourable feedback) seem more prone to seek positive feedback (Gong, Wang, Huang, & Cheung, 2014), they are not more likely to engage in other forms of proactive

behaviour. This is due to the fact that performance-oriented individuals prefer to avoid situations that may lead people to question their abilities (e.g., if proactive behaviour is unsuccessful) (Parker & Collins, 2010). Consideration of future consequences (CFC) refers to the extent to which an individual is thoughtful about future outcomes as opposed to more immediate ones (Strathman, Gleicher, Boninger, & Edwards, 1994). Because proactive behaviour involves anticipation and future-oriented thinking, employees high in CFC tend to engage in proactive behaviour more so than individuals low in CFC. In support of these considerations, (Parker & Collins, 2010) found that CFC predicted issue selling, individual innovation, feedback seeking and career initiative. The concept of need for cognition captures individuals' dispositional tendency to engage in and enjoy complex thinking (Cacioppo & Petty, 1982). Employees high in need for cognition are likely to enjoy complex and uncertain situations (a typical context of proactivity). In a multisource study with Dutch employees, Wu et al. (2014) found that need for cognition was positively associated with individual innovative behaviour. Drawing upon an interactionist perspective showed how this effect was more pronounced for individuals with low job autonomy and low time pressure. This suggests that individuals high in need for cognition utilise proactive behaviour as a means to engage in complex, anticipatory and change-oriented thinking.

2.2.5. MOTIVATIONAL UNDERPINNINGS OF PROACTIVE BEHAVIOUR

To better understand the antecedents of proactive behaviour, we might need to consider the more proximal motivational drivers: for instance, it could be speculated that the antecedents previously discussed have their effect on

proactive behaviour by shaping the underpinning motivational processes of an individual.

Proactivity, with its focus on change, often involves challenging the status quo, so it can be risky to one's image. In addition, proactive behaviour can consume a great deal of time, effort and resources (Bolino, Valcea, et al., 2010). Why then do employees engage in proactive behaviour? This is an important question for the current chapter because, as I elaborate shortly, understanding the motivational underpinnings of proactivity will help to unpack its impact on well-being. Parker et al. (2010) proposed a model of proactive motivation in which three key motivational states that prompt and sustain proactivity were identified: can do, reason to, and energized to, which I elaborate below.

'CAN DO' MOTIVATION

A '*can do*' motivational state includes self-efficacy perceptions (e.g., can I do it?), feasibility appraisals and attributions (e.g., is it attainable?), and the perceived costs associated with the proposed action (e.g., is it risky?). The concept of self-efficacy, originally introduced by Bandura in 1977, is commonly referred to as an individual's confidence about his or her ability to engage in and successfully complete a particular task. Self-efficacy is, therefore, a self-judgement about what one can do, regardless of one's objective skills and abilities (Bandura, 1982).

Self-efficacy perceptions are especially important because proactivity often entails potential psychological risk (Parker et al., 2010) and requires high levels of persistence (Frese & Fay, 2001). Many studies support the importance of self-efficacy perceptions for enhancing proactivity (Frese & Fay, 2001; Parker, 1998;

Parker et al., 2006).

'REASON TO' MOTIVATION

A 'reason to' motivation recognises that people need a motive, or reason, to engage in proactive behaviour. Parker et al. (2010) underlined the importance of internalised (or autonomous) motivation as stimulating proactivity, such as feelings of positive affect or engagement, intrinsic motivation/ interest, meaningfulness, flow and identified motivation. These authors also highlighted the importance of individuals having a personal sense of responsibility. For example, a more flexible role orientation, or feeling ownership for issues and goals beyond one's prescribed tasks (Parker, 2000; Parker et al., 1997), predicts proactive work behaviour (Parker et al., 2006).

Related to the above focus on autonomous motivation, an important motive for engaging in proactivity is to experience feelings of competence, autonomy, and relatedness. This idea stems from self-determination theory (Ryan & Deci, 2000). According to self-determination theory, there are three basic and innate psychological needs that are the basis of intrinsically motivated behaviour (Ryan & Deci, 2000): the need for competence, autonomy, and relatedness. Deci and Ryan maintain that fulfilment of these needs is essential for human well-being; an assertion that is supported by many studies (2000). Fay and Sonnentag (2012) showed that these basic psychological needs might be a driving force for proactivity. They argued that "proactive behaviour is a means to positively influence one's level of experienced competence" (p.77). This hypothesis was tested in an experience-sampling study with 52 employees. An analysis of within-

subject fluctuations in daily proactivity across five working days showed that low self-reports of experienced competence during core tasks predicted a subsequent increase in time spent on proactive behaviour. As a result, Fay and Sonnentag's study seems to corroborate the idea that proactive goals are often challenging, and thus serve to fulfil employees' need to experience competence at work.

'ENERGISED TO' MOTIVATION

The '*energized to*' motivation is the most affect-related motivational state of proactivity. Parker et al. (2010) proposed that activated positive affect will stimulate proactivity inasmuch as positive affect and vitality help broaden action-thought repertoires (Fredrickson & Branigan, 2005) and activate approach-action tendencies (Seo, Barrett, & Bartunek, 2004). Bindl et al. (2012) found evidence to support this prediction that activated positive affect, but not de-activated positive affect, was important in predicting the 'envisioning' of proactive goals, as well as their implementation. Additionally, a diary study by Fritz and Sonnentag (2009) showed that positive energized feelings promote taking charge behaviours, and a study by Hahn et al. (2012) showed that vigour is an important predictor of personal initiative amongst business owners.

Related to the 'energized to' pathway is the role of engagement in stimulating proactivity. Engagement refers to "a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption" (Schaufeli, Salanova, González-Roma, & Bakker, 2002, p.74). Salanova and Schaufeli (2008) showed that workers provided with adequate resources (i.e., job control, feedback and task variety) were more prone to experience engagement and involvement in

their job, which in turn translated into higher levels of proactive behaviour (for a review, see Bakker & Demerouti, 2008). In a similar vein, scholars have investigated how positive well-being might promote proactivity. Sonnentag (2003) showed that day-level recovery during off-work time was associated with increased engagement and proactive behaviour in the following day. Consistent with Hockey (2000), this suggests that employees are less inclined to invest extra effort when they feel insufficiently recovered. Conversely, when feeling recovered, people are more likely to fully immerse in their job and be more engaged, which in turns increases their likelihood to be proactive at work.

Just as motivation drives proactivity, motivation is also a potential outcome of proactivity, in a dynamic and reciprocal relationship. For example, individuals engage in proactivity when they have self-efficacy, but being proactive might also build self-efficacy. Likewise, whilst the desire for flow (i.e., a mental state of full immersion, involvement and enjoyment in the activity) might prompt proactivity, being proactive might then promote flow experiences by yielding a better match between personal skills and task challenges (Csikszentmihalyi, 2000). I elaborate this perspective on potential positive outcomes of proactivity in the Chapter X.

2.2.6. OUTCOMES OF PROACTIVITY

In this final section of this chapter I focus on the outcomes of proactive behaviour. Specifically I review the main findings regarding how proactivity influences individual performance, career success, career satisfaction and organisational outcomes.

Proactive behaviour has been consistently linked with superior performance, which is arguably the reason why research in this field has flourished and generated so much attention. The proactivity-performance link is unsurprising given that such behaviour is especially helpful in uncertain and interdependent contexts where it is difficult to pre-specify all the tasks/behaviours required: employees must figure out by themselves how to behave in each different situation without passively waiting to be instructed. Such environments are becoming increasingly common in a dynamic business world where organisations need to quickly adapt and implement change in order to survive and thrive (Griffin et al., 2007). Various forms of proactive behaviour, such as network building, personal initiative (Thompson, 2005), voice (Van Dyne & LePine, 1998) information seeking (Morrison, 2002) taking charge (Grant et al., 2009) and personal initiative (Bledow & Frese, 2009) were found to be positively associated with individuals' performance. At the organisational level, studies have linked proactivity with firm success. For instance, Frese and Fay (2001) showed that small enterprise owner's personal initiative was positively related to firm success across three different samples.

Indeed, high performance ratings often translate to promotions and other forms of career progression. However, several studies have shown that certain forms of proactivity can also benefit employees' professional development. Frese, Fay, Hilburger, Leng, and Tag (1997) found that employees' with high levels of personal initiative were more likely to make plans for their career and had higher employability. Proactive individuals tend to actively seek feedback and build networks that shape interpersonal as well as mentoring relationships with

supervisors and senior colleagues, which in turn facilitate career development and job opportunities (Blickle et al., 2009). Similarly, in a longitudinal study, Seibert, Crant, and Kraimer (1999) reported that proactive personality was positively associated with career progression (in terms of salary increase and promotions over the previous two years) and career satisfaction, and this relationship was mediated by employees' innovation, political knowledge of organisational issues, and career initiative. Curiously, the authors point out that voice behaviour, in contrast to innovation, was negatively associated with career progression, seemingly suggesting that employees challenging the status quo without providing constructive solutions may experience side-effects on their career progression. This paradoxical backlash of voice behaviour raises some interesting doubts and questions over the 'universally' positive outcomes of proactivity. Taking this perspective further, more recently scholars have begun to explore the 'dark side' of proactivity (Bolino, Valcea, et al., 2010), which considers the potentially negative consequences of engaging in proactivity for employees.

In this chapter, I have provided an overview of the current state of the literature on proactive behaviour. I have reviewed the antecedents of proactivity (both dispositional and situational), its motivational underpinnings, and the outcomes for both the individual and the organisation. Interestingly, as emerged from this review, less attention was given to the well-being outcomes of proactive behaviour. Although some scholars have speculated about the possible effects that engaging in proactive behaviour may yield for employees, there has been relatively little empirical research on the subject (Bolino, Valcea, et al., 2010; Strauss & Parker, 2014). In the next chapter of this thesis, I elaborate why

exploring the outcomes of proactive behaviour from a well-being perspective is just as important as understanding its antecedents and drivers, and outline a model of well-being consequences of proactive behaviour.

CHAPTER 3

A MODEL OF THE PERSONAL CONSEQUENCES OF PROACTIVE BEHAVIOUR

This chapter is presented as a book chapter manuscript. A longer version of this chapter has been published in the *Wiley-Blackwell Handbook of the Psychology of Occupational Safety and Workplace Health* in 2015. The candidate completed the literature review and was responsible for the manuscript preparation and editing (70% estimated overall contribution). Professor Sharon Parker supervised the project, provided feedback and edited the manuscript various times prior to submission for publication. Both authors collaboratively developed the theoretical model.

3.1. INTRODUCTION

To date there has been little attention given to how engaging in proactivity affects employees' health and well-being, which is my core focus in this chapter. Specifically, I consider how proactivity affects employee well-being via stress-related processes.

In the first part of this chapter, I introduce the overall model of the effects that proactivity might have on well-being. In the subsequent sections, I unpack this model. Drawing upon self-determination theory, as well as the Broaden and Build theory of emotions, I then describe how being proactive at work might invigorate employees' well-being and/or prevent stress in the workplace. As part of this discussion, I review previous research that has looked at the interplay between related positive work behaviours (such as contextual performance) and health and well-being (Greguras & Diefendorff, 2010). I also consider how self-directed actions in the workplace have the potential to fuel one's self-confidence at work.

In the third part of this chapter I introduce the strain pathway of proactivity, and discuss when and how proactive behaviour might be detrimental to employees' well-being. I also examine the key role of feedback from peers and supervisors in moderating the proactivity/well-being relationship. Specifically, I investigate how receiving negative feedback can thwart needs satisfaction, undermine self-efficacy, and generate negative emotional reactions, thereby reducing the positive consequences of proactivity for well-being. Afterwards, I discuss how the motivations under which proactivity is performed can moderate its effects of well-being. For example, I suggest that controlled forms of proactivity will be

more consuming of personal resources and hence might harm individuals' well-being. Finally, I suggest practical implications for managers and practitioners of this research, such as how to create a work environment that encourages proactive behaviour that is good for employees' well-being, as well as key areas and theoretical issues that need to be addressed in future research.

3.2. POSITIVE WELL-BEING OUTCOMES OF PROACTIVITY

Many studies have highlighted the positive consequences of proactivity. In a field study, Van Dyne and LePine (1998) reported that employees engaging in voice behaviour were rated more favourably in terms of performance by supervisors six months later. In a similar manner, Grant et al. (2009) indicated that individuals displaying high levels of proactive behaviour were given better performance ratings by their supervisors, especially when employees had a high prosocial motivation and low negative affect. Thompson (2005) conducted a study on 126 employee-supervisor dyads and suggested that the relationship between proactive personality and job performance might be mediated by proactive behaviours like personal initiative and network building. In a meta-analysis, Fuller and Marler (2009) found positive relationships between proactive personality and supervisor-rated job performance, and added that such an effect on performance "is stronger than that reported for any of the Big Five factors or the Big Five collectively" (p. 329).

However, the benefits of proactive behaviour are not confined to superior performance alone. Greenglass and Fiksenbaum (2009) reported that individuals engaging in proactive coping were more likely to have lower absenteeism, and

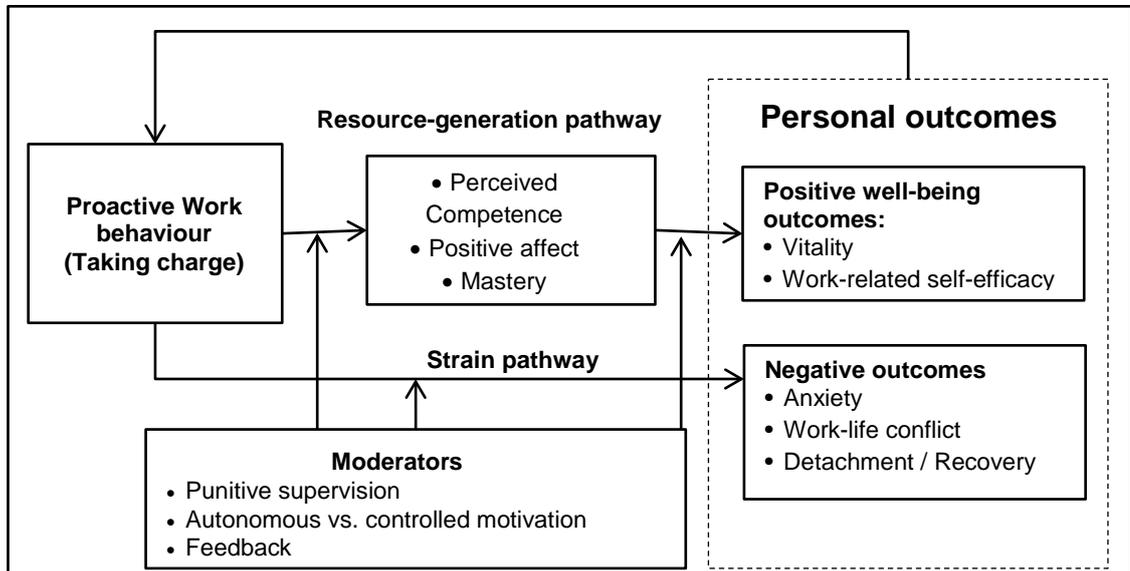
this relationship was mediated by greater levels of positive affect. Research also suggests that proactive individuals are more prone to feel satisfied about their jobs (Wanberg & Kammeyer-Mueller, 2000) and have a more successful career (Blickle et al., 2009). There is thus some evidence of personal benefits from proactivity. Nevertheless, the health and well-being consequences of proactivity need more attention.

It is possible, for example, that an individual might be promoted more rapidly because of their proactivity, but still experience higher levels of psychological strain as a result. Over the past few years different perspectives are arising as to how proactivity may impact on well-being (Bolino, Valcea, et al., 2010). One crucial issue is whether proactive behaviour is beneficial for health and well-being (in a win-win situation), or if its positive effects on organisational performance tend to backfire on employees' well-being. The few articles that have examined this question have shown rather different (if not opposite) views on this matter.

We seek to help move this literature forward by proposing a model of the effect of proactivity on well-being (see Figure 2). First, in understanding the effect of proactivity on well-being, I suggest it is important to distinguish short-term and more momentary effects from longer-term consequences. While long-term consequences over several years might be hypothesized, my focus in this chapter is to illustrate the shorter term well-being outcomes of proactivity, such as those associated with a particular proactive episode. Second, it should be noted that the following model focuses on within-person processes that are moderated by between-person differences. Overall, I propose two potential pathways of well-

being outcomes, which I elaborate in the next section.

Figure 2. Hypothesised personal outcomes of proactive work behaviour



3.3. WELL-BEING OUTCOMES OF PROACTIVE BEHAVIOUR: RESOURCE-GENERATION PATHWAY

As previously discussed, activated positive affect is a powerful propellant for proactivity (Bindl et al., 2012; Hahn et al., 2012). Scholars have further suggested that such a relationship might be mutual, creating a positive spiral wherein, for example, experiencing vitality and positive affect fuels proactivity, which in turn generates more vitality (Strauss & Parker, 2014). Successful attempts to be proactive at work are likely to fuel employees' confidence in their ability to carry out work-related tasks (self-efficacy), as well as a broader set of tasks that extends beyond their core duties (Parker, 2000). Hence, this confidence is crucial to determine whether or not an individual will behave proactively again in the near future. Additionally, proactivity can enhance feelings of competence, autonomy and relatedness, which in turn generate activated positive emotions (e.g., vitality) that facilitate the engagement in more proactivity.

3.3.1. A SELF-DETERMINATION PERSPECTIVE: SATISFACTION OF BASIC NEEDS AS A MECHANISM

Drawing on self-determination theory, Strauss and Parker (2014) argued that proactivity, as a self-initiated and discretionary behaviour, can substantially contribute to employees' well-being via the satisfaction of one's basic psychological needs. First, given its self-initiated nature, proactive behaviour could enhance feelings of autonomy and self-direction by allowing employees a greater sense of control over the surrounding environment (Koestner, Ryan, Bernieri, & Holt, 1984). Second, in light of its change-oriented focus, Parker et al.

(2010) maintained that being proactive can increase challenging opportunities at work, thus facilitating the experience of competence and mastery (Massimini & Carli, 1988). The effect of proactive behaviour on employees' need of relatedness are instead more mixed: on the one hand proactivity is potentially a way to actively shape interpersonal relationships and social interactions (Grant & Ashford, 2008), thus raising people's sense of relatedness at work; on the other hand, engaging in proactive behaviour may sometimes undermine the need for relatedness, for instance by voicing an unpopular opinion during a team meeting regarding an organisational issue.

In sum, researchers suggest that people engage in proactive behaviour motivated by the desire to provide for their basic needs for competence and autonomy (a 'reason to' pathway), and consequently, when they are proactive, individuals are likely to experience greater need fulfilment and, hence, more intrinsic motivation at work. Although a logical prediction, there are no empirical tests yet of the effect of proactivity on need satisfaction and well-being¹.

3.3.2. SELF-EFFICACY AS A CONSEQUENCE OF PROACTIVITY: A MASTERY MECHANISM

As earlier discussed, self-efficacy perceptions are a crucial antecedent of proactive behaviours in organisational settings (Parker, 2000; Parker et al., 2010). When employees are confident in their ability to successfully complete tasks, they are more likely to engage in proactive behaviour. In this section, I propose and

¹ This was true at the time of writing the chapter. However, a recent study by Wu et al. (2017) does show that engaging in proactive behaviour can enhance feelings of competence.

discuss why self-efficacy, aside from being a powerful determinant of proactivity, can also represent an important outcome of proactive efforts.

Self-efficacy is a rather malleable trait, subject to considerable intra-individual variations, depending on people's life experiences and emotions. According to Bandura (1982), there are four key experiences that contribute to the development of self-efficacy: enactive mastery (repeated performance accomplishments), modelling (vicarious experiences), verbal persuasion (convincing an individual of his or her ability to complete a task) and emotional arousal (a person's psychological state). The cognitive appraisal and integration of these four cues eventually determines one's self-efficacy. For the purpose of this chapter, I will focus on mastery, since not only is it the most important cue in determining the self-efficacy beliefs, but also the most relevant to my discussion around proactive behaviours.

Mastery is the most important cue in enhancing self-efficacy (Bandura, 1977, 1982). As Gist (1987) states: "mastery is facilitated when gradual accomplishments build the skills, coping abilities, and exposure needed for task performance" (p. 473). This view of mastery as key determinant of self-efficacy is supported by a meta-analysis, in which Sitzmann and Yeo (2013) surveyed thirty-eight studies looking at the self-efficacy/performance relationship and concluded that "past performance enlightens assessments of confidence rather than confidence compelling higher performance" (p.564). Accordingly, it seems that the impact of past performance on self-efficacy is even more pronounced than vice versa.

These considerations around the experience of mastery are particularly relevant to proactive behaviour. I speculate that engaging in proactive behaviour is important for building mastery, which in turn enhances work-related self-efficacy. Proactive behaviour often goes beyond formally written job descriptions and roles, which means there are no clear instructions or guidelines to follow (Parker & Collins, 2010), thus enhancing the degree to which it is perceived as a challenging activity. Engaging in proactive behaviour can therefore be a challenging experience, which can fulfil employees' innate desire for competence (Massimini & Carli, 1988; Ohly & Fritz, 2007). Challenging tasks create feelings of competence because they elicit a sense of mastery and effectance in one's surrounding environment (Deci & Ryan, 2000; Ryan & Deci, 2000; Ryff, 1989).

In turn, the experience of mastery in one's work can help build the belief in one's ability to successfully complete work-related tasks. Being proactive at work could be particularly beneficial for a specific subset of self-efficacy beliefs: role-breadth self-efficacy (RBSE). Parker (1998) defines RBSE as "the extent to which employees feel confident that they are able to carry out a broader and more proactive role" (p.835). Again, RBSE has been described as a situation-specific subset of self-efficacy, subject to considerable fluctuations over time (Parker, 1998). Previous research has identified RBSE as a crucial precursor for proactive behaviour (Parker, 2000; Parker et al., 2006).

Just as positive mastery experiences can fuel one's self-confidence, negative ones (e.g., failures) can decrease it (Gist, 1987). I discuss the potentially detrimental effect of negative feedback in the link between proactivity and mastery later in this chapter.

3.3.3. A BROADEN AND BUILD APPROACH: AFFECT AS A MECHANISM

Drawing on the Fredrickson's broaden and build theory (1998) of positive emotions (Grant & Ashford, 2008; Strauss & Parker, 2014), scholars have further argued that proactivity might have a dynamic relationship with affect, with affect not only fostering proactivity, but proactivity fostering affect. Broaden and build theory seeks to explain how and why positive emotions promote human flourishing. According to Fredrickson, experiencing feelings of positive affect encourages people to broaden their awareness and engage in exploratory actions. As a result, this process helps to create skills and resources, which, in turn, increase one's psychological resilience and the ability to cope with stressors. In a longitudinal study featuring 122 business owners, Hahn et al. (2012) found that entrepreneurs' vigor was positively associated with task and relationship-oriented personal initiative. The researchers argued that business success might explain such a relationship: that is, proactive entrepreneurs are more likely to be successful, which in turn may generate greater psychological well-being (Hahn et al., 2012). Likewise, experiencing positive and activated feelings helps broaden people's thought-action repertoires, thus increasing their likelihood to take personal initiative. However, it should be mentioned that Hahn and colleagues' study is correlational in nature and, therefore, requires cautious interpretation when it comes to causal effects.

On a similar note, Fritz and Sonnentag (2009) maintain that people experiencing positive affective states are more likely to take charge and behave proactively. In turn, being proactive at work can create opportunities to satisfy basic needs and thereby increase vitality in what Strauss and Parker (2014) call "positive upward

spiral of (...) proactivity” (p.29). Along these lines, Salanova and Schaufeli (2008) have speculated that experiencing feelings of enthusiasm, inspiration and challenge at work could help broaden habitual ways of think and acting, which in turn can facilitate proactive behaviour at work. In sum, scholars have argued that, just as positive emotions can stimulate proactive behaviour, proactivity can also result in positive affect, which then has the benefits of broadened thinking and resource building, resulting in more engagement in proactivity. Such a dynamic spiral has not yet been tested.

Empirically, there are very few articles on the potentially positive effects of proactivity on well-being² (Strauss & Parker, 2014, being the only exception I am aware of). However, there is some research on related constructs, such as creativity, innovation and citizenship behaviours, which I briefly consider here.

Creativity refers to the “production of novel and useful ideas in any domain” (Amabile, Conti, Coon, Lazenby, & Herron, 1996, p. 1); which has some parallels with proactivity (albeit tending to be more focused on generating, rather than implementing, new ideas). The overwhelming majority of research tends to describe workers’ creativity as a win-win: not only do organisations that promote individual creativity benefit in terms of effectiveness, but also the very employees report greater job satisfaction and psychological well-being. This is because creativity creates new challenges for workers, as well as opportunities for personal and professional growth (Amabile et al., 1996). In addition to this, researchers have often associated creativity with the experience of positive

² This was true at the time of writing this chapter.

energising emotions such as enthusiasm, optimism and happiness (Csikszentmihalyi, 2000).

According to Belschak and Hartog (2010), proactive behaviour is also to some extent related to organizational citizenship behaviour (OCB). Whilst OCB is distinct from proactivity in that it is not necessarily anticipatory or future-focused, it does share a discretionary emphasis. Meta-analyses have shown a consistent association of OCBs with reduced turnover and job satisfaction (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009).

The research on creativity, OCBs and well-being suggests largely positive well-being consequences, but there are some major limitations that should be considered. First, it should be noted that, although proactivity shares some common ground with OCBs and creativity, it is distinct. Some of the features of proactivity that make proactivity psychologically risky, and hence potentially threatening to well-being, such as the emphasis of proactivity on self-initiated change, do not apply to creativity or OCBs. Second, research looking at the well-being outcomes of creativity and OCBs is primarily correlational, thus not allowing for causal interpretations. It is quite plausible that more satisfied individuals with greater enthusiasm, for example, will be more likely to engage in these behaviours. Third, little is known about the underlying mechanisms that regulate the effects of creativity or OCBs on well-being.

3.4. **NEGATIVE OUTCOMES OF PROACTIVITY: A STRAIN PATHWAY**

One criticism of the literature on proactivity concerns its overwhelming focus on its positive aspects (in terms of organisational effectiveness and career success), with insufficient attention to the potential costs associated with proactivity (Bolino, Valcea, et al., 2010), or the 'dark side'. In this section, I elaborate on the potentially negative consequences of proactive behaviour from a well-being perspective, and discuss the key moderating role of motivation in this process.

Drawing upon conservation of resources theory (COR theory; Hobfoll, 1989), Bolino, Valcea, et al. (2010) identified proactive behaviours as a potential source of employee stress. Previous research has indicated that proactive behaviour is likely to necessitate the exertion of energy and resources (Grant & Ashford, 2008). For instance, an employee trying to implement a new administrative procedure, which could result in greater organisational profits, will likely have to undertake extra work to design and test this initiative.

Indirect empirical evidence for these speculations about the importance of resources has been provided by Parker et al. (2012) in a quasi-experimental study: in line with COR theory, hospital doctors who did not experience negative affect (suggesting sufficient resources) made use of structural support to engage in greater proactive care and voice. In contrast, doctors who reported high levels of negative affect (suggesting insufficient resources) were more inclined to use the supplied support as a means to protect existing resources, thus resulting in lowered role overload. These findings imply that having a reasonable level of

resources is necessary before engaging in proactivity, which in turn, suggests that being proactive might consume resources.

3.4.1. THE RESOURCE-DEMANDING NATURE OF PROACTIVITY

The above considerations are consistent with the view of proactivity as a goal-regulation process requiring regulatory resources. As discussed in Chapter 2, Bindl et al. (2012) proposed a goal-regulatory model of proactivity at work.

Within this framework, the researchers recognized four different core elements of proactive behaviour: envisioning, planning, enacting and reflecting. First, people identify that something can be done to actively change the situation (envisioning); prepare a plan for action (planning); then engage in proactive behaviour (enacting); and finally reflect upon the implications of their proactive behaviour (reflecting). As a result, proactive behaviour is not just about simply acting in a proactive manner, but rather involves a goal-regulation process made of different phases, each of which is vital to yield the positive outcomes of proactive behaviour.

In this regard, an increasing body of research has started to look at self-regulation as a limited resource that, just like a battery, becomes depleted over use. That is, when we exert self-regulation in a task, our performance is likely to be poorer in a subsequent, unrelated task that also requires self-control. The term ego depletion is frequently used to refer to a loss of regulatory resources, which results in subsequent impaired performance in tasks that require the exertion of self-regulation. When people experience this state of depletion, they are more likely to fail to self-regulate afterwards. Accordingly, rather than being solely a matter

of trait-like individual differences in personal resources, the ability to regulate one's behaviours, emotions and impulses largely depends on the regulatory capacity that I can avail of at a certain moment. For example, an experiment by Baumeister et al. (1998) indicated that controlling emotions impairs subsequent self-regulation. Participants watched an emotionally distressing video clip. Participants who were asked to either show no emotion or exaggerate their emotions performed poorer on a following handgrip exercise compared to participants who spontaneously expressed their natural emotions. This approach, known as the strength model of self-control, has received a considerable amount of empirical support (M S Hagger et al., 2010). Research in this field suggests that this ego depletion effect occurs across various domains; for example, controlling thoughts, regulating emotions (Muraven et al., 1998), making decisions (Vohs et al., 2008), helping other people (DeWall et al., 2008), and resisting persuasion (Wheeler et al., 2007). Consistent with COR theory, a considerable amount of research has linked chronic exertion of regulatory depletion (e.g., emotional labour) with outcomes detrimental for well-being such as burnout and emotional exhaustion (Hülshager & Schewe, 2011; Schmidt, Neubach, & Heuer, 2007). In fact, burnout is a long-term outcome of stress, resulting from a constant loss of resources without the ability to replenish them successfully (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Despite the huge body of evidence for the ego depletion effect, it should be acknowledged that ego depletion theory has been subject to major criticism over the past few years. For example, Hagger and colleagues noted that "Meta-analysis of the studies revealed that the size of the ego-depletion effect was small with 95% confidence intervals (CIs) that

encompassed zero ($d = 0.04$, 95% CI [-0.07, 0.15]." (Martin S Hagger et al., 2016), suggesting that the ego depletion effects may be in reality relatively small.

One question that needs to be asked is whether proactive behaviour depletes regulatory resources and, if so, under what conditions. As a matter of fact, self-control often involves an intra-motivational conflict: we restrain our instincts and impulses in order to maximise our long-term goals. By way of illustration, a person dieting restrains his or her temporary food cravings to achieve the goal of losing weight. In terms of goal-regulation, self-control refers to the ability to guide one's own actions by setting performance standards and monitoring the progression towards these standards (Baumeister & Vohs, 2007).

An implication of this discussion is that because self-regulatory processes are involved in proactivity (e.g., planning), engaging in proactive behaviour could be quite demanding and consuming of resources. Due to its anticipatory, self-initiated and future-oriented nature, proactive behaviour may require a great deal of self-regulation to be carried out successfully (Bindl et al., 2012). Previous research has indicated that proactive behaviour is likely to require the exertion of energy and resources (Grant & Ashford, 2008). Furthermore, because proactivity often entails challenging the status quo, it can be met with resistance and be even ostracised by the organisations (Bateman & Crant, 1993; Bolino, Valcea, et al., 2010) and it is not always valued by supervisors (Grant et al., 2009). Finally, employees can sometimes feel 'compelled' by the organisation to take charge and behave proactivity, thus placing an additional stress on top of employees' core activities. In summary, behaving proactively could necessitate the exertion of considerable regulatory resources and therefore consume them.

On a different note, it is also worth remembering that the amount of goal regulation involved may affect the extent to which proactivity is perceived as demanding by employees. For example, voicing out a concern in a weekly meeting is conceivably a type of proactive behaviour that involves less goal regulation compared to longer-sustained activities requiring effortful daily striving, such as implementing a new work procedure. To summarise, when analysing the potential impact of proactive behaviour on well-being, it is important to consider the amount of goal regulation involved in the proactive process.

The idea that positive organisational behaviours may backfire on employees' well-being has been already been discussed in previous research on similar constructs. For example, Bolino and Turnley (2005) have examined the costs associated with organisational citizenship behaviours (OCBs) on a study with 98 couples. Their findings showed that individual initiative (a specific type of OCB) was positively associated with role overload, job stress and work-family conflict, suggesting that engaging in personal initiative at work could have potential costs for employees. Additionally, individual innovation has been previously considered as an additional demand on employees: innovating may entail challenging the status quo, thus encountering resistance to change from co-workers and supervisors. Along similar lines, taking innovative initiatives has previously been found to be associated with conflict and frustration at work (Janssen, 2003). A plausible explanation of this relationship has been sought in an increased demand of resources: engaging in innovative work often requires complex problem solving, increased workload and resource investment (Janssen, Van de Vliert, & West,

2004). Fairness in procedures is also a crucial aspect to consider when examining the well-being outcomes of positive organisational behaviours. In 2004, Janssen carried out a study among first-line managers from six organisations in which explored the link between innovative behaviour on stress and burnout.

Consistent with Janssen's predictions, analyses showed that perceptions of distributive fairness moderate the impact of demanding innovative behaviours on stress reactions. Namely, employees perceiving their efforts and investments as 'under-appreciated' and 'under-rewarded' were more likely to experience high levels of stress, as opposed to innovators perceiving a fair balance between efforts and rewards (Janssen, 2004).

Indeed, although there is indeed some theoretical overlap, OCBs and innovation are distinct from proactive behaviour (Parker & Collins, 2010). Therefore, findings in relation to these similar - yet different - constructs should be interpreted cautiously in relation to proactive behaviour. Furthermore, research considering the potentially negative effects of OCBs and personal initiative is mostly correlational and does not allow drawing firm causal inferences (Bolino & Turnley, 2005; Janssen, 2003). That being said, the previous research on the 'dark side' of positive organisational behaviours seems to provide some support to the strain pathway of proactivity presented in this chapter.

3.4.2. THE MODERATING ROLE OF FEEDBACK AND PUNITIVE SUPERVISION

Feedback is considered a crucial managerial tool that not only provides employees with valuable information about their performance, but can also increase their work motivation (Earley, Northcraft, Lee, & Lituchy, 1990).

Feedback is given to notify workers regarding the effectiveness and accuracy of their behaviours at work (Hackman & Oldham, 1976). In relation to motivation, Deci and Ryan (2002) argued that providing positive feedback (i.e., verbal rewards, praise) can support needs satisfaction and infuse a sense of accomplishment in employees that can increase intrinsic motivation at work. In support of these considerations, a meta-analysis of 128 experiments confirmed that whilst providing extrinsic rewards when achieving goals tends to decrease intrinsic motivation, verbal rewards and praises appear to enhance it (Deci, Koestner, & Ryan, 1999).

Previously I described how being proactive at work can fuel one's self-efficacy perceptions, increase self-determination, and generate positive activate feelings like vigour and vitality. Now, I consider the moderating role of feedback in relation to the resource-generation and strain pathways of proactivity.

Specifically, I argue that receiving negative feedback can interfere with the development of self-efficacy (or even decrease it), disrupt the self-determination process and needs fulfilment, and potentially elicit negative emotional reactions such as anxiety and depression. Consequently I propose that feedback will moderate the effects of proactivity on self-efficacy, positive affect, need fulfilment, and hence proactivity. In addition to this, I draw upon COR theory to explain why negative feedback can render proactivity more resource-depleting.

HOW NEGATIVE FEEDBACK CAN THWART NEEDS SATISFACTION AND UNDERMINE THE SELF-EFFICACY EFFECTS OF PROACTIVITY

Being proactive may expose individuals to criticism, complaints and blaming,

which can surely harm the incumbents' well-being. By way of illustration, an employee may suggest a new method for carrying out work that, despite the efforts to be implemented, turns out to be under-appreciated by peers and supervisors. Ironically, even if the outcome of a proactive action was extremely positive for the organisation, the way other members or supervisors perceive this type of behaviour might be opposite. In fact, the meaning people assign to human behaviours is, to a large extent, socially constructed (Berger Peter & Luckmann, 1966). As a consequence, the way others react and interpret our actions, attitudes and beliefs is determined by social interactions, and cannot rely on objective evaluations. On this note, Stobbeleir, Ashford, and Luque (2010) maintain that "proactive behaviours are particularly susceptible to social-construction processes" (p.348). This is indeed due to their discretionary and non-prescribed nature. Along these lines, Grant et al. (2009) found that supervisors' rating of proactive behaviour largely depend upon employees' values and level of positive affect. Therefore, the type of feedback received may moderate an employee's perceptions of how useful and successful was their proactive behaviour.

Although the effects of positive feedback have been widely documented and explored in empirical research, less attention has been devoted to the moderating role of negative feedback in shaping the effects of organisational behaviour and performance on motivation and well-being. (Deci & Ryan, 2002). Across three studies, Baron (1988) explored the impact of criticism on task performance and self-efficacy. Consistent with his hypotheses, destructive criticism lowered participants' self-efficacy and hampered their subsequent task performance. From

a motivational perspective, Vallerand and Reid (1984) found that providing college students with positive and negative feedback had a differential effect on their intrinsic motivation: as expected, receiving positive feedback increased intrinsic motivation, whilst negative feedback had a deleterious impact on it. These causal relationships were both mediated by students' perceived competence. Namely, when people receive negative feedback about their performance, this can impair their sense of competence, which in turn decreases intrinsic motivation.

It is important to note that the above mentioned studies on the effects of feedback were mainly focused on task-specific or job performance feedback. In my view, negative feedback is a key moderator by undermining the motivation effects of proactivity and by increasing feelings of resource depletion.

We expect that the impact of feedback resulting from proactivity is likely to be more significant than feedback on job proficiency owing to the greater role played by psychological ownership in self-initiated and self-directed behaviours. Adopting self-determination theory as a theoretical framework, Shepherd and Cardon (2009) hypothesized that the intensity of negative emotions triggered by project failure might vary as a function of the previously experienced feelings of self-determination carrying out the project. Namely, dedicating time, effort and energy in pursuit of a project that fuels feelings of autonomy, competence and relatedness may have intense negative emotional reactions on the individual in case the project failed.

One issue that emerges from this consideration is that feelings of self-

determination as a result of proactive actions may actually have a double-edged sword effect on employees' emotional reactions: on one hand, successful attempts of proactive behaviour can generate a feelings of vitality; on the other hand, when proactivity results in unexpected negative feedback from peers and supervisors, it may generate intense negative emotional reactions, thwart needs satisfaction and undermine self-efficacy. On the contrary, receiving positive feedback and appreciation from others should elicit positive affect, and provide opportunities to accumulate resources (e.g., work-related self-efficacy). In fact, past research has shown that receiving positive feedback at work can indeed affect motivation and vitality (Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008).

Previously I discussed how being proactive at work can fuel one's confidence at work. However, receiving unfavourable feedback from others after proactivity can interfere with this process. In two experimental studies, Baron (1988) examined how destructive criticism impacts on conflict, self-efficacy perceptions and task performance. In study 1, in line with his hypotheses, participants who received destructive criticism regarding their task performance reported negative feelings such as tension and anger. In the second experiment, subjects that received destructive criticism indicated lower self-efficacy and were more likely to set lower goals in subsequent tasks, compared to those who received constructive feedback or no feedback at all.

According to Bandura (1977) failures can have a more pronounced impact on self-efficacy beliefs when their causes are attributed to internal factors (e.g., ability), rather than situational factors. Because proactive behaviour is by nature self-

initiated and self-directed, I speculate that receiving negative feedback as a result of proactive efforts may be perceived as more ego threatening than feedback on task performance. As a consequence, an individual's self-efficacy is more likely to be decreased when negative feedback results from self-initiated actions.

Lowering employees' self-efficacy with negative feedback can also undermine future attempts to be proactive. Self-efficacy perceptions are, in fact, a key motivational antecedent of proactivity at work (can do motivation). As an example, if an employee's efforts to be proactive are reciprocated with blaming, reprimands and destructive criticism, then his or her confidence to be proactive again at a later time is likely to be undermined. Arguably, this effect might be more conspicuous for role-breadth self-efficacy, rather than work-related self-efficacy.

THE MODERATING ROLE OF FEEDBACK: A CONSERVATION OF RESOURCES PERSPECTIVE

Engaging in proactive behaviour often entails going beyond what is technically prescribed for employees. Proactivity, in fact, may well require careful planning, future-oriented thinking, and striving to achieve one's goals. While briefly voicing out a concern during a weekly meeting is still considered proactivity, other behaviours like creating, developing and implementing a new work procedure may indeed require considerably more time and energy. Such efforts can be an additional burden on employees on top of their core tasks. In other words, proactivity can consume resources. COR theory posits that individuals have an innate drive to create, retain, protect and foster resources personal resources (Gorgievski & Hobfoll, 2008; Hobfoll, 1989). Resources can either have

an intrinsic value (e.g., support, status, self-esteem, autonomy) or an instrumental value (e.g., money, shelter). According to COR theory, stress ensues when these resources are threatened with loss, lost or when significant resource investments do not translate into resource gains.

From a conservation of resources perspective, receiving negative feedback or poor appreciation from co-workers and supervisors should trigger a protection of resources mechanism (Hobfoll, 1989). In fact, human beings have an innate desire to retain and protect resources. Within this framework, stress occurs when there is a perceived loss of resources or a lack of substantial gain after resource investments. In light of this, proactive behaviour that results in negative feedback from others might be detrimental to their well-being. On the other hand, however, being praised with positive comments and appreciation for one's proactive actions may indeed diminish feelings of depletion and signal the individual that energy and effort have been well invested, and therefore moderate the effect of proactivity on well-being.

Another crucial aspect to consider is the outcome of proactive behaviour. Proactive efforts, in fact, do not always turn out to be successful. For instance, research on individual innovation suggests that experiencing failure may undermine employees' confidence to engage in innovative behaviour in the future (Guzzo & Shea, 1992), but also it may cause subsequent reprimands or blaming from peers and supervisors for the unfortunate endeavour. On the other hand, it should be mentioned that successful innovation provides opportunities for recognition and accomplishment at work, which were found positively associated with individual well-being (Janssen et al., 2004). Although the

research evidence is mainly correlational and necessitates cautious interpretation, it seems plausible that the outcome of one's proactive behaviour is likely to determine whether they will do so again in the future.

PUNITIVE SUPERVISION AS A MODERATOR OF PROACTIVITY EFFECTS

Supervisors play a crucial role within organizations: due to their managerial position they often have formal power over financial, personnel, and political resources. Earlier in this section I have considered how receiving feedback can influence the well-being consequences of proactivity. In this section, I consider how supervisors' reactions to employees' mistakes can shape the well-being outcomes of proactivity.

Owing to its focus on change - proactivity is not always welcomed and encouraged by supervisors as it may challenge their status quo and decisional power (Frese & Fay, 2001; Wu & Parker, 2014). Engaging in proactivity in contexts where the risks of proactivity are accentuated (Cangiano & Parker, 2015) may generate anxiety-related feelings. For instance, when employees are afraid of possible repercussions and punishment, they can feel anxious and refrain from voicing their concerns (Kish-Gephart, Detert, Treviño, & Edmondson, 2009). However, if employees voice their concerns, or otherwise behave proactively –and have a supervisor who is believed to react negatively to mistakes and blame employees - they may experience a sense of psychological risk, which in turn may trigger feelings of anxiety. Therefore, I argue that having a punitive supervisor may exacerbate the negative effects of proactivity by eliciting a sense of anxiety and stress in employees.

3.4.3. AUTONOMOUS VS. CONTROLLED MOTIVATION AS A MODERATOR OF THE EFFECTS OF PROACTIVITY

In the previous section I discussed the moderating role of feedback and supervisor support in relation to the well-being outcomes of proactive behaviour.

I now discuss another potentially crucial moderator: the motivations under which proactivity is performed. I suggest that the extent to which proactivity drains resources is closely related to the motivations that prompt people to engage in this type of behaviour. By definition, proactive behaviour is a self-initiated and self-directed action to cause change. Therefore, from a “reason to” perspective, proactivity should be located closer to the autonomous anchor on the autonomous-controlled motivation continuum. That is, proactive actions should be motivated by an innate interest or enjoyment in the task itself (intrinsic motivation) or because the proactivity helps to achieve goals that are extremely important to the self (identified and integrated regulation) (Parker et al., 2010; Ryan & Deci, 2008). For example, an employee constantly seeking feedback from peers and supervisors may not necessarily enjoy the feedback process itself, but would perceive his or her proactive efforts as a means to become more competent at work. It has then been argued that such autonomously motivated proactivity should increase employees’ vitality and enhance their well-being at work (Strauss & Parker, 2014).

However, not all that glitters is gold. Scholars have recognized that organizations sometimes expect proactivity and seek to control it, suggested this behaviour is not always autonomously motivated. Consequently, being consuming of physical

and mental energy, proactivity could cause stress, especially when organizations expect individuals to engage in proactive behaviour (Bolino, Valcea, et al., 2010) thereby resulting in externally (rather than internally) regulated, or controlled, proactivity (Strauss & Parker, 2014). For instance, a recently hired employee on probation may engage in proactive behaviour with the aim of increasing the likelihood to retain his or her new job. Under this scenario, proactivity is self-initiated, but the goal is to achieve or retain an extrinsic end, which is a more controlled form of proactivity. Such a scenario is arguably becoming increasingly common in organisations, particularly after the economic crisis in 2008 (Heyes, 2011). In a similar manner, restructuring and downsizing may also prompt people to pursue externally motivated actions (Meyer, Becker, & Vandenberghe, 2004). Additionally, proactive behaviour may be performed as part of impression management strategies in order to gain promotions and monetary rewards.

According to self-determination theory, controlled behaviours can be extremely motivating. However, there is a differential impact of such motivation on well-being and subjective vitality: the more motivation lays at the intrinsic or autonomous end of the continuum, the greater its ability to generate energy and vitality (Ryan & Deci, 2000, 2008). Consequently, to understand the impact of proactivity on well-being it is necessary to differentiate proactive behaviour into two different categories (although not mutually exclusive): controlled proactivity and autonomous proactivity. Autonomously regulated proactive behaviour is motivated by intrinsic needs and/or performed for its own sake. Conversely, controlled proactivity is self-serving behaviour performed effortfully for extrinsic reasons (e.g., impression management, social influence, job promotions). Under

these circumstances, proactivity is more likely to rely on effortful regulation and volition, thus depleting resources and reducing psychological vitality. Even in the case of integrated and identified regulation, proactive behaviour may involve self-control and willpower. As Bindl et al. (2012) suggested, some stages of proactivity (e.g., striving) are naturally more effortful and require regulatory mechanisms to achieve the proactive goal. Preliminary evidence for these considerations has been sought by Strauss, Parker, and O'Shea (2017)³ who investigated how motivation moderates the impact of proactive work behaviour on job strain. Specifically, they found that that, when controlled motivation is high and autonomous motivation is low, proactivity tends to be associated with greater job strain, both in the short (two weeks) and long-term (eight months).

Hence, it appears that a careful consideration of motivational underpinnings is essential to predict whether proactive behaviour will have a positive vs. negative effect on an individual's well-being and subjective vitality. Namely, the motivations under which proactive behaviours are performed should moderate the impact of proactivity on well-being.

³ This study was not published at the time of writing this chapter.

3.4.4. PROACTIVE BEHAVIOUR AND LIFE OUTSIDE OF WORK

In this section I focus on the personal consequences of proactivity from a work-life perspective and discuss the ways in which proactive behaviour may interfere with employees' life outside of work. The term work-life balance captures the problems associated with balancing work demands and other life roles (e.g., family, friends, hobbies) (Gröpel & Kuhl, 2009). Although work-life balance is indeed a construct distinct from well-being, various studies have shown that work-life balance is a solid and reliable predictor of employees' well-being (Grant-Vallone & Donaldson, 2001; Greenhaus, Collins, & Shaw, 2003; Gröpel & Kuhl, 2009; Noor, 2004). Drawing on ego depletion theory (Baumeister et al., 1998), I aim to identify the ways in which behaving proactively at work may backfire on employees by creating tension between the work and life domains.

First, proactive behaviour may consume time that would have otherwise been dedicated to family and social activities. For example, implementing a new procedure may entail taking on additional tasks and responsibilities beyond existing ones that cannot be completed during regular working hours. In turn, this could drastically reduce the time available to engage with one's social and family life (Jones & Fletcher, 1996).

Second, under certain circumstances proactivity can drain energy and induce a state of ego depletion (see above section on autonomous vs. controlled proactivity). This may consume resources essential for a proper work-life balance: a study by Wagner, Barnes, and Scott (2014) suggested that employees' daily emotional labour (i.e., a subset of ego depletion) was associated with feelings of

emotional exhaustion, work-to-family conflict and sleep disturbances. Therefore, experiencing ego depletion could make it difficult for an employee to fully engage in one's life and family roles even if sufficient time was available; this is due to the fact that employees in such state are less likely to possess sufficient mental and physical energy to dedicate themselves to family, friends and/or personal hobbies.

Third, pursuing proactive goals may interfere with the process of recovery by causing rumination. The term recovery refers to the process of replenishing energy and 'undoing' the strain caused by stressors and demands (Sonnentag & Fritz, 2015). Insufficient recovery can create serious negative consequences for employees' well-being (Fritz & Sonnentag, 2005; Geurts & Sonnentag, 2006), as well as negatively affecting proactive behaviour the following day (Sonnentag, 2003). However, successful recovery is not only determined by the amount of time available off-work, the quality of the recovery experience also matters (Sonnentag & Bayer, 2005; Sonnentag & Fritz, 2015; Westman & Eden, 1997): scholars have coined the term psychological detachment to capture an individual's not only a physical, but also a mental sense of 'being away' from the workplace in their off-work time (Sonnentag, 2003, 2012; Sonnentag et al., 2010; Sonnentag & Krueger, 2006). Psychological detachment is positively associated with recovery, which is in turn predictive of engagement and work performance (Binnewies, Sonnentag, & Mojza, 2010; Fritz & Sonnentag, 2005; Sonnentag, 2003). Conversely, work rumination refers to perseverative thoughts about work-related issues that persist after working hours (Cropley & Millward Purvis, 2003; Querstret & Cropley, 2012). Proactive goals (e.g., implementing a new work

procedure) are not necessarily achieved during the working day, and may sometimes require weeks, months or even years to be successfully accomplished. Hence, it is plausible to expect that any resistances or obstacles to their achievement could create feelings of rumination during off-work time and damage the recovery process.

Having considered how proactive behaviour could negatively affect an employee's work-life balance, it is also important to acknowledge that proactivity could in some cases be beneficial to recovery, and hence positively affect work-life balance. For instance, preventing work-related problems or attempting alternative and more efficient ways to carry out one's core activities may actually reduce workload, thus facilitating a healthy balance between work and life domains. Similarly, as aforementioned, the very act of engaging in proactive behaviour could elicit energising affective experiences that eventually create a positive spillover onto employees' lives outside of work (Greenhaus & Powell, 2006).

Ultimately, the effects of proactivity on employees' work-life balance are likely to depend on various factors: the circumstances under which the behaviour is performed, the type of proactive behaviour, and the employee's own ability to separate the work and family sphere. I elaborate this perspective further in Chapter 5 when considering the consequences of taking charge behaviour on employees' work-life conflict.

3.5. FUTURE RESEARCH

The issue regarding the consequences of proactivity on well-being is an intriguing one, which could be usefully explored in future research. The model I proposed in this chapter provides an obvious starting point. From a methodological viewpoint, research looking at the outcomes of proactive behaviour from a well-being perspective is scarce and inadequate (mostly correlational). Particularly, I advocate the use of longitudinal studies to unveil the mechanisms through which proactivity may enhance or undermine employees' well-being. Intensive longitudinal methods, such as experience sampling studies (Bolger & Laurenceau, 2013; Larson & Csikszentmihalyi, 1983) are specifically useful to look closely at consequences of proactive work behaviour from an episodic type of approach. This issue is specifically addressed in the next two chapters, where I present two intensive longitudinal studies on the personal consequences of proactive behaviour.

3.6. CONCLUSIONS

Taking charge and making things happen at work is an increasingly important behaviour for organisations willing to succeed and thrive in complex and dynamic environments. Unsurprisingly, proactivity has generated considerable interest among researchers and practitioners. Yet, over two decades of research on proactive behaviour have largely neglected to consider the outcomes of this crucially important behaviour from a well-being perspective. In this chapter, I first summarised key research findings on proactivity to identify its distal antecedents and motivational underpinnings. Furthermore, I drew upon key

well-being theories and research evidence to suggest pathways through which proactivity can enhance or undermine employees' well-being.

As discussed, it is important to distinguish between positive and desirable consequences of proactivity (e.g., self-determination, self-efficacy, and vitality) and potentially negative outcomes (e.g., role overload). I believe it is crucial to understand the variables that determine whether proactive behaviours will energise employees or cause strain. In this chapter, I identified feedback and motivations to be proactive as key moderators in my model. Overall, I recommend that scholars begin to consider the well-being outcomes of proactivity, and advocate the use of longitudinal studies to assess intra-individual change and development in relation to proactive behaviour and personal resources. In the following chapters I present two intensive longitudinal studies that test the dual-pathway model presented in this chapter.

CHAPTER 4

DAILY WELL-BEING EFFECTS OF PROACTIVE BEHAVIOUR

This chapter is presented as a journal article manuscript. A version of this manuscript was under review at the time this thesis was submitted. The candidate completed the literature review and was responsible for data collection, data analysis, manuscript preparation and editing (70% estimated overall contribution). Professor Sharon Parker supervised the project and provided feedback during all stages of the research. Professor Gillian Yeo provided feedback and support with the statistical analyses. All co-authors helped design the study and edited the manuscript before submission.

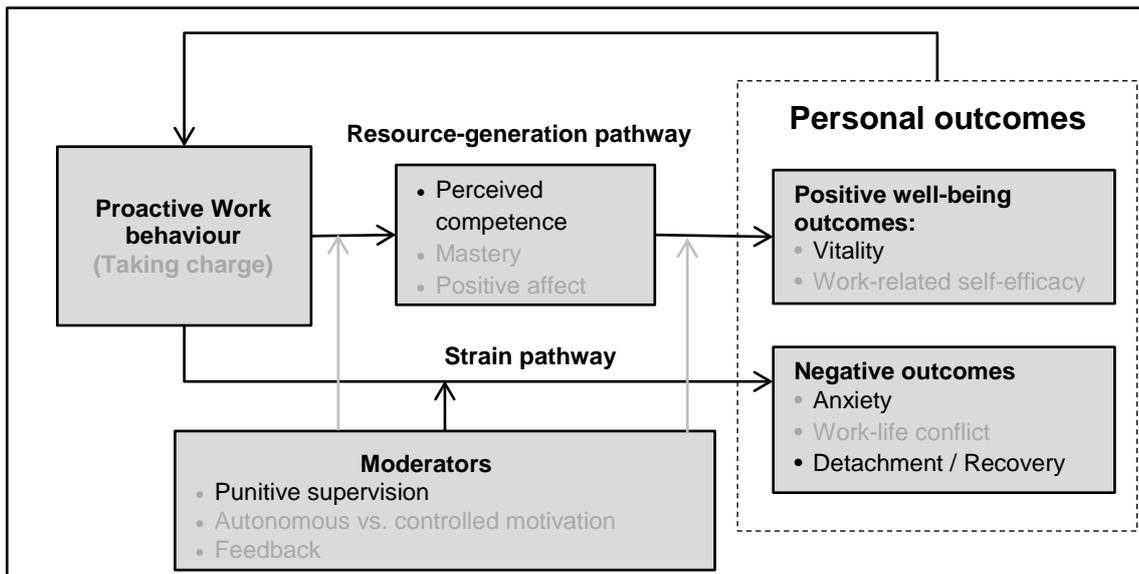
Note that some of the material from the submitted paper (that is, Cangiano, Parker, & Yeo, under review) has been deleted here to reduce replication of arguments already put forward in the previous chapters.

Cangiano, F., Parker, S. K. & Yeo, G. (revise & resubmit). Does Daily Proactivity Affect Well-Being? Mostly Positive Effects Unless The Supervisor Is Punitive *Journal of Organizational Behaviour*.

4.1. FOREWORD

This chapter is based on an empirical paper (Cangiano, Parker, & Yeo, under review) that tests the dual pathway outlined in chapter 2 adopting a diary study methodology (Ohly, Sonnentag, Niessen, & Zapf, 2010). Specifically, in this study I simultaneously consider the positive (work vitality) and negative (anxiety, detachment) daily outcomes of proactivity. In the resource-generation pathway, I propose that daily proactive behaviour enhances work vitality via perceived competence; whereas in the strain pathway (activated when supervisors are perceived as punitive), I propose that daily proactive behaviour depletes resources by increasing anxiety, which in turn undermines detachment from work. Figure 3 summarises the variables considered in this chapter (shown in darker font).

Figure 3. Overview of the variables considered in Chapter 4



4.2. INTRODUCTION

In this paper, I test speculations about the ‘bright’ and the ‘dark’ side of proactive work behaviour for employee well-being by exploring two distinct day-level processes (see Figure 4). I draw upon self-determination theory and the stressor-detachment framework, respectively, to hypothesize two distinct well-being pathways of proactivity: an energy-generating pathway and a strain pathway.

More specifically, with respect to the energy-generating pathway, I propose that the very nature of proactive behaviour generates a sense of vitality in employees. Vitality captures an individual’s feeling of aliveness and vigor at the end of the workday (Ryan & Frederick, 1997) and is an indicator of positive well-being. I argue that, because it is self-initiated and agentic, behaving proactively contributes to employees’ perceptions of competence, which in turn enhances feelings of vitality. I conceptualize this as a relatively fast-acting process because I expect the very act of behaving proactively creates almost immediate feelings of competence, which, in turn, foster the generation of vitality.

Further, in a co-occurring but slightly longer-term process, and drawing on Sonnentag and Fritz’s stressor detachment framework (2015), I propose that proactive work behaviour can – in certain circumstances – also generate a sense of anxiety and interfere with the process of detachment after work (i.e., unwinding from work demands). Anxiety is an affective experience characterized by feelings of worry and nervousness that can indicate negative well-being (Warr, 1990). I expect that anxious feelings can accumulate over a day, and spill over to

impair one's evening detachment, which "a state in which people mentally disconnect from work and do not think about job-related issues when they are away from their job" (Sonnentag, 2012, p. 114). Detachment 'matters' because it facilitates recovery, or the replenishment of one's resources that are drained during work (Sonnentag, 2003).

Importantly, I contend that this strain pathway is activated in the context of a blame-oriented supervisor who reacts negatively to employees' mistakes (Bolino, Valcea, et al., 2010). When proactivity is initiated in the context of a punitive supervisor, I propose that behaving proactively will generate a sense of anxiety because proactive work behaviour is change-oriented and uncertain, so can feel especially psychologically risky for employees, exposing them to potential reprimands from the manager if it does not work out (Bolino, Valcea, et al., 2010). Managers have formal power over financial, personnel, and political resources within an organization, so if employees perceive that mistakes and errors are not well-tolerated by their supervisors, this is likely to induce anxiety when engaging in the challenging and more unpredictable behaviour of proactivity. Consequently I propose the strain pathway will only arise when one has a punitive supervisor with a blaming tendency.

This research contributes to the topic in several important ways. First, as discussed above, very little research has considered the well-being outcomes of proactive behaviour. Yet well-being is an important outcome in and of itself, especially in the light of increasing concerns about stress and poor well-being in the workplace (e.g., Danna & Griffin, 1999). In addition, understanding well-

being effects will ultimately enhance our capability to maintain and support proactivity at work over the longer-term.

Second, my focus on the well-being outcomes of proactive behaviour is distinct from, yet builds on, earlier research on the well-being consequences of other positive organizational behaviours, notably organizational citizenship behaviour (OCB) (Koopman, Lanaj, & Scott, 2016; Lin & Johnson, 2015; Trougakos, Beal, Cheng, Hideg, & Zweig, 2015). Proactive behaviour is a distinct construct to citizenship, and is likely to affect well-being through distinct mechanisms.

According to Grant and Ashford (2008), “the key criterion for identifying proactive behaviour is not whether it is in-role or extra-role, but rather whether the employee anticipates, plans for, and attempts to create a future outcome that has an impact on the self or environment” (p.9). In other words, citizenship behaviour can be either proactive (when it is future-focused and anticipatory) or more passive (when it is reactive). In fact, most previous within-person studies on citizenship behaviour have tended to focus on ‘passive’ forms of behaviour, such as helping others by responding to their requests (Koopman et al., 2016; Trougakos et al., 2015). Scholars investigating well-being consequences have argued that, although reactive in focus, citizenship such as helping are ‘extra-role’ and hence require more effort and can interfere with goal progress, which in turn increases job strain (Koopman and colleagues, 2016). I argue for a very different process by which proactive behaviour might negatively affect well-being, and that is in terms of the psychological risk, and hence anxiety, this future-focused and change-oriented behaviour can give rise to, especially in the face of a blaming-

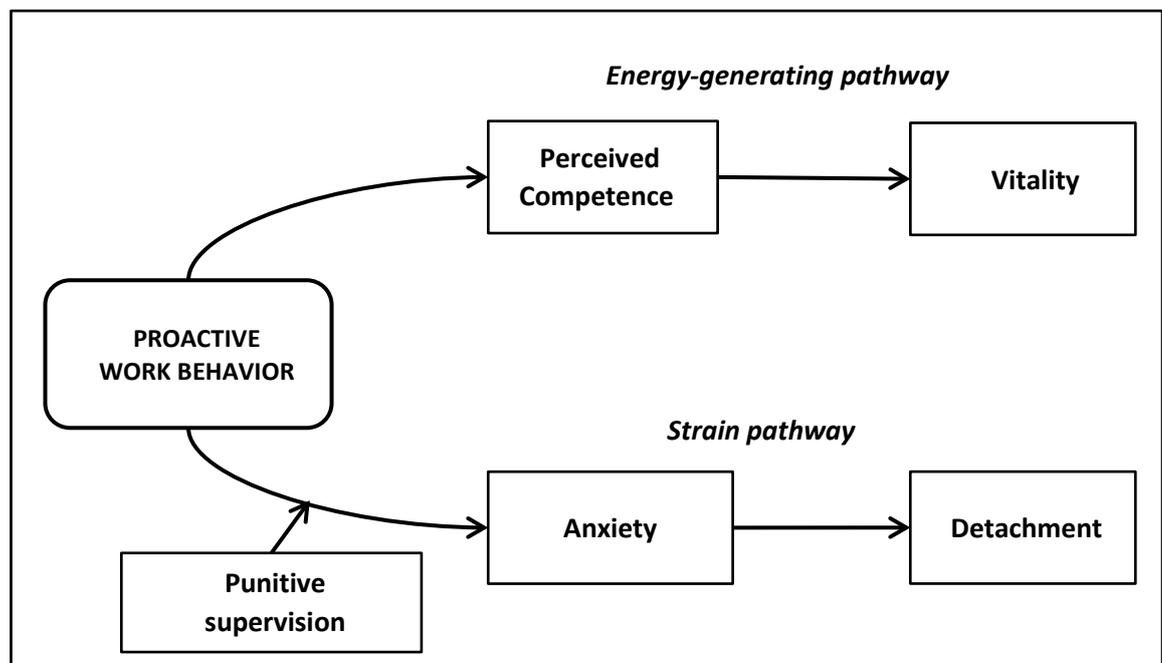
oriented supervisor. Since proactive behaviour can be goal-related and therefore does not necessarily slow one's progress, the key demonstrated mechanism by which citizenship behaviour affects well-being is different to that theorized and investigated here.

A third contribution is my within-person approach, in which I seek to understand whether and how, if a person is more or less proactive on a given day, their well-being is affected. For instance, do employees feel more vital after work on days in which they are very proactive, and/or feel more anxious and struggle to detach from work while at home? And, what are the mechanisms that explain, and the contingencies that shape, these outcomes? Although a within-person approach has been shown to be important in the study of antecedents of proactive behaviours (e.g., Binnewies et al., 2010; Sonnentag, 2003), it has not been used to investigate the outcomes of proactivity (with the exception of Fay & Huttges, 2016). Yet a within-person approach to understanding proactivity outcomes is important, and distinct from a between-person approach. By way of illustration, although meta-analyses suggests that proactive individuals are more likely to receive better performance evaluations and be satisfied about their job, implying a positive effect on well-being, such relationships may look quite different at the within-person level (Thomas et al., 2010). It is plausible to expect that, on certain occasions, being proactive might not be well-received by one's supervisor or co-workers, thus reducing job satisfaction and core performance, and potentially well-being (Bolino, Valcea, et al., 2010). Between-person approaches fail to capture such mechanisms, or the contingencies that affect them. A further

important role of a within-person approach is that it can help to understand dynamic changes over time. For example, a between-person approach cannot explain why an individual that used to be very proactive at work gradually adopts a more reactive approach, or why a passive employee becomes more and more proactive over-time. A within-subjects design can shed light on such dynamics. Finally, with respect to the focus on well-being, this variable is prone to fluctuations over short periods of time, and therefore a within-person approach is likely more appropriate than a between-person approach to unpack the consequences of proactive behaviour for this outcome (Xanthopoulou, Bakker, & Ilies, 2012).

I elaborate my theory and hypotheses next, first describing the energy-generating pathway, and second describing the strain pathway (Cangiano & Parker, 2015).

Figure 4. Research Model



4.2.1. A RESOURCE-GENERATION PATHWAY OF PROACTIVE WORK BEHAVIOUR

I propose that, on a daily basis, engaging in proactive work behaviour generates vitality (i.e., a feeling of energy and aliveness) because it increases levels of experienced competence at work. According to self-determination theory (SDT), human beings have a basic and innate psychological desire to experience competence, or the need to be effective and master the environment. This assumption is also prevalent in Ryff's (1989) conceptualization of psychological well-being, which argues that the ability to master and control the surrounding environment is highly beneficial for individuals' well-being. Due to its discretionary and agentic nature, I propose that engaging in proactive behaviour at work will provide fertile ground for employees to perceive themselves as competent in their daily work activities.

More specifically, there are at least three reasons why proactive work behaviour is likely to be important for fulfilling an employee's competence needs (Strauss & Parker, 2014). First, proactivity is challenging, which means that it is likely to fulfil individuals' innate desire to feel competent (Massimini & Carli, 1988). Challenging tasks create perceptions of competence because they promote the experience of mastery and effectance in one's surrounding environment (Deci & Ryan, 2000). Proactivity often transcends formally written job descriptions and roles, which means there are no clear instructions or guidelines to follow (Parker et al., 2010; Strauss & Parker, 2014), enhancing the degree to which it is perceived as a challenging activity. Proactivity is also change-oriented, and trying to bring

about change involves challenges such as dealing with the resistance of others (Parker et al., 2010). Moreover, the future-focus of proactivity means that the outcome of this behaviour is unknown, again adding to the degree of challenge. Second, we know that proactive behaviour often results in positive outcomes that contribute to performance, which again likely fuels competence perceptions. For instance, actively attacking a problem before it occurs likely saves a considerable amount of time compared to dealing with it 'reactively' after its manifestation. Third, because proactive behaviour is self-initiated, its execution means that the individual can attribute any positive outcomes to their own personal efforts, which in turn is likely to fuel the individual's sense of competence.

Altogether, therefore, I expect that proactive behaviour provides a powerful vehicle for enhancing one's perceived competence at work. A previous within-person study provides indirect support for this theorizing: in 2012, Fay and Sonnentag showed that when people have a desire to experience competence at work, they are more likely to engage in proactive behaviour. Although this effect is about the desire for competence fuelling proactive behaviour rather than the reverse, this study's findings are nevertheless consistent with the idea that proactivity can serve as a means to experience competence. It is likely individuals learn over time that being proactive fosters their sense of competence, which then means that they will enact proactive behaviour to achieve the feeling of competence. I propose:

Hypothesis 1: Proactive work behaviour is positively associated with perceived competence at the end of the workday, controlling for

prior day perceived competence, such that individuals perceive a greater sense of competence on days in which they engage in high levels of proactive work behaviour compared to days in which they behave less proactively.

Further, I propose that experiencing competence at work affects employees' vitality, in an energy-generating process. Self-determination theory proposes that, when individuals engage in activities that allow them to have their basic need for competence satisfied, individuals experience a sense of vitality, and, conversely, when this need is thwarted, individuals will experience a lack of energy and suboptimal functioning (Deci & Ryan, 2000; Ryan & Deci, 2000). According to Ryff (1989), competence (defined as environmental mastery) is a core tenant of psychological well-being: one's perceived ability to manipulate and control the environment through mental and physical activities can greatly contribute to individuals' well-being. The positive link between the experience of competence and vitality is well established in the literature, even being validated across cultures (e.g., Deci et al., 2001; Milyavskaya & Koestner, 2011). Evidence from experience-sampling studies corroborates this theorizing. Sheldon, Ryan, and Reis (1996) showed that daily fluctuations in perceptions of competence were associated with vitality. Similarly, Ryan, Bernstein, and Brown (2010) found that the greater the sense of competence workers experienced in their daily tasks, the greater their sense of vitality. Within this framework, behaving proactively at work should generate a greater sense of vitality by providing opportunities to actively participate in and master one's surrounding environment, and thereby

experience a feeling of competence. Therefore, drawing on self-determination theory, I propose the following:

Hypothesis 2: Perceived competence is positively associated with end-of-work vitality, controlling for morning vitality, at such that individuals experience higher levels of vitality at the end of work, on days in which they perceived a high level of competence compared to days in which they had lower perceptions of competence.

Hypothesis 3: Proactive work behaviour has an indirect positive effect on one's end-of-workday vitality, through its effect on daily perceived competence, controlling for prior levels of vitality and perceived competence.

4.2.2. A STRAIN PATHWAY OF PROACTIVE WORK BEHAVIOUR

So far I have theorized that engaging in proactive behaviour will generate vitality by providing opportunities for an individual to experience a sense of competence at work. However, I also propose that proactivity can, under certain circumstances, generate a sense of anxiety and interfere with the process of detachment. I conceptualize the strain pathway as a slightly longer-term process compared to the energy-generation process described earlier. In this pathway, I explore the 'risky' nature of proactivity, and focus on how being proactive could ultimately undermine individuals' well-being not only at work, but also after work (Sonnentag & Krueger, 2006).

Parker et al. (2010) described how the uncertainty, change-focus, and self-initiated features of proactivity result in it being psychologically risky. For example, engaging in proactive behaviour often means changing existing work procedures, and this challenging component of proactive behaviour means it can be perceived as threatening by leaders and co-workers (Bolino, Valcea, et al., 2010). Proactive work behaviour is not always welcomed by organizations and may encounter resistance from others (Frese & Fay, 2001). For this reason, pursuing proactive goals can be perceived as 'risky'. Unsurprisingly, and related to its risky nature, previous studies have found that a sense of trust in the organization predicts innovative behaviour (Clegg et al., 2002), that employee self-efficacy is a crucial determinant of multiple forms of proactivity (e.g., Frese & Fay, 2001; Parker et al., 2010), and employees are more likely to be proactive within organizations that actively foster a climate that encourages taking risks without repercussions (Baer & Frese, 2003). The future-focus of proactivity also means that the outcome of this behaviour is often unknown, and while this may indeed create a motivating sense of challenge in employees, it may also trigger worries and ruminative thoughts regarding potentially negative outcomes, which employees may be held accountable and responsible for. For all of these reasons, the psychologically risky nature of proactive behaviour means that it could elicit feelings of anxiety in employees.

However, I propose that the likelihood of anxiety-related feelings arising when behaving proactively at work is likely to be particularly high in contexts where the risks of proactivity are accentuated (Cangiano & Parker, 2015). Specifically, I

argue that having a punitive supervisor, who tends to react negatively to and blame employees for mistakes, will moderate the effect of proactive behaviour on anxiety. For example, when employees are afraid of possible repercussions and punishment, they can feel anxious and hesitate to voice their concerns (Kish-Gephart et al., 2009). If they do voice their concerns, or otherwise behave proactively, I expect that employees with a supervisor who is believed to react negatively to mistakes and blame employees will experience a stronger sense of psychological risk, which triggers a greater level of anxiety, compared to having employees behaving proactively who believe their supervisor is tolerant towards errors. In some ways, punitive supervision is related to, but the converse of, the idea of psychological safety, which is recognized to be important in the context of proactivity (Dollard & Bakker, 2010). However, whereas psychological safety is about a positive, safe environment fostered by one's team members and peers, here I focus more specifically on the crucial role that supervisors play in shaping the extent to which being proactive might engender anxiety. I focus on supervisors and managers because they are in a position of power with regards to their employees, which is a status that is likely to particularly accentuate the psychological risks of proactive action (Detert & Treviño, 2010). My hypothesis is:

Hypothesis 4: For individuals with high perceptions of punitive supervision, proactive work behaviour is positively associated with end-of-workday anxiety, controlling for morning anxiety, such that individuals perceive a greater sense of anxiety on days in which they engage in high levels of proactive work behaviour compared to days in which they behave

less proactively.

I further propose that, if employees experience a heightened level of anxiety at work when behaving proactively, that these feelings of anxiety will accumulate over time and, because of their ruminative nature, spill-over and interfere with their later ability to detach from work demands. In other words, I propose that anxiety can, in turn, interfere with the process of detachment in the evening.

Detachment (an individual's sense of 'being away' from the workplace in their off-work time) is a crucial well-being outcome because it a strong predictor of next-day recovery from work demands (Sonnentag, 2003, 2012; Sonnentag & Bayer, 2005; Sonnentag et al., 2010; Sonnentag & Fritz, 2015; Sonnentag & Krueger, 2006; Westman & Eden, 1997). For these reasons, low levels of detachment as a useful indicator of strain / poor well-being.

Thus, engaging in proactive behaviour may generate feelings of anxiety that undermine detachment from work that evening (Sonnentag & Fritz, 2015).

Altogether, I hypothesize that:

Hypothesis 5: Anxiety is associated with bed time detachment at the within-person daily level such that individuals experience lower levels of detachment in the evening on days in which they experience anxiety compared to days in which they do not experience anxiety.

Hypothesis 6: For individuals with high perceptions of punitive supervision, proactive work behaviour has a significant indirect effect on one's evening detachment through its effect on end-of-work day anxiety

controlling for morning anxiety.

In sum, proactivity is a complex behaviour that can potentially be both beneficial and detrimental for employees' daily well-being. I have proposed that proactive work behaviour – by virtue of its highly agentic, change-focused nature – will generate one's feeling of vitality that day by enhancing perceptions of competence. However, although this energy-generating process is relatively fast-acting, proactivity might also undermine well-being through different, and somewhat slower, processes. Consistent with Bolino and colleagues theorizing of proactivity as a psychologically risky behaviour, I have argued that if one's supervisor is perceived as punitive, proactive work behaviour may generate anxiety that, in turn, reduces psychological detachment after work.

4.3. METHOD

To test the hypotheses, I used a within-person research design (Bolger & Laurenceau, 2013; Ohly et al., 2010). To assess the energy-generating pathway, I focused on proactive work behaviour, perceived competence, and vitality assessed at the end of the work day. To address the fact that all of these variables were assessed at the same time period, I controlled for levels of perceived competence from the previous day in the prediction of perceived competence, and I controlled for morning levels of vitality in the prediction of end-of-day vitality. It was appropriate to control for morning vitality as this captures affect experienced at a given point in time, whereas feelings of work competence need to be captured after one has engaged in work and therefore prior day competence

was an appropriate control.

To test the strain pathway, I focused on proactive work behaviour and anxiety that were assessed at the end of the work day (controlling for anxiety in the morning), detachment measured in the bed-time survey.

We also controlled for age because prior research showed positive associations between age and proactive behaviour (van Veldhoven & Dorenbosch, 2008).

4.3.1. SAMPLE

The sample was 94 managers and professionals who worked in a wide range of industries in both the public and the private sector. I chose to focus on managers and professionals due to the fact that these individuals generally possess a sufficient degree of autonomy in their daily work activities, which is an important antecedent of proactive work behaviour (Griffin et al., 2007; Parker & Collins, 2010). The average age in the sample was 35.3 years (SD = 6.6 years) and 53% were males. Participants had on average 2.5 years of experience in their current job position (SD = 2.6 years), and the average tenure at their current workplace was 4.4 years (SD = 4.2 years). All participants were enrolled in a part-time MBA (Master in Business Administration) at the University of Western Australia.

4.3.2. PROCEDURE

The study was conducted in two phases. In Phase 1, after participants agreed to participate in the study, they were emailed a link to complete an online baseline survey using Qualtrics. This survey assessed employees' age, gender, tenure, level

of education, as well as participants' perceptions of punitive supervision.

Phase 2 consisted of the daily surveys. The data from these surveys were collected using a survey application (iSurvey or droidSurvey) installed on participants' own smartphones. In a 20-minute briefing session, participants received instructions on how to download the surveys on their smartphones and when to fill-out the surveys. Participants were asked to respond to three daily surveys over five to seven consecutive working days: within an hour before the end of the workday (end-of-workday survey), within 30 minutes before going to bed (bed-time survey), and within an hour before the beginning of the next workday (morning survey). Participants' proactive work behaviour, perceived competence were measured in the end-of-workday survey, vitality and anxiety were assessed both in the morning and the end-of-workday survey, and detachment was measured in the bed-time survey.

In total, I collected data from 935 surveys/measurement occasions. Sixty-six surveys were excluded from the analyses because they were either empty or were not completed during the instructed time. Thus, the final sample size comprised 869 surveys (ranging from 8-21 measurement occasions across 3-7 days for the 94 participants).

4.3.3. MEASURES

To keep the daily survey length to a minimum and thus minimize survey fatigue for respondents, I used a subset of two or three items from each scale, consistent with recommendations from scholars conducting ESM studies (Ohly et al., 2010).

Proactive work behaviour. I assessed proactive work behaviour in the end-of-workday daily survey using the following three items: “Today, I came up with ideas to improve the way in which my core tasks are done”, “Today, I initiated better ways of doing my core tasks”, and “Today, I generated creative ideas.” These items were adapted from Griffin et al. (2007) and were scored on a 5-point Likert Scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Perceived competence. The items used to measure perceived competence were adapted from Brien et al’s (2012) Basic Psychological Needs at Work Scale (BPNWS). Participants reported on their perceptions of competence in the end-of-workday survey by responding to the following items: “Today, I felt competent” and “Today, I felt good about how well I carried out my work” on a Likert scale ranging from 1 (*to no extent*) to 5 (*to a very great extent*).

Vitality. Vitality was assessed using the following three items from the Utrecht Work Engagement Scale (UWES) developed by Schaufeli, Bakker, and Salanova (2006): “Right now, I feel strong and vigorous”, “Right now, I feel alive and vital” and “Right now, I feel energized.” Items were assessed on a Likert scale ranging from 1 (*not at all*) to 5 (*extremely*), and were administered in the morning and at the end of the workday.

Anxiety. Anxiety was assessed using the following two items adapted from Warr’s job-related affective well-being scale (1990): “Right now, I feel anxious” and “Right now, I feel worried.” The response scale ranged from 1 (*not at all*) to 5 (*extremely*). Participants reported on their anxiety in the morning and in the end-

of-workday survey.

Detachment. Psychological detachment from work was assessed with two items adapted from Sonnentag, Mojza, Binnewies, and Scholl (2008). An example item is “This evening, I did not think about work at all” on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Detachment was measured in the bed-time survey.

Punitive supervision. I developed a three-item measure of this construct to capture the extent to which employees’ perceive their supervisor as blame-oriented. Individuals were asked how their supervisor reacts to subordinates’ mistakes and errors on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item is “My supervisor gets angry or upset with staff if they make a mistake” (see Table 4 in Appendix for the remaining items). The set of items was intended to capture exemplar forms of punitive supervision that apply across different jobs and hierarchical levels (consistent with the nature of the sample).

To provide evidence of validity of this measure, I sought to show that the construct was internally consistent and related, albeit factorially distinct, from similar constructs such as transformational leadership, developmental leadership and team climate. These findings showed that punitive supervision is distinct from both team climate and other aspects of leadership and, as expected, is negatively correlated with those constructs (see Appendix). Drawing on a broader sample of managers (N = 109) that included additional participants who did not

take part in the study, I carried out a Confirmatory Factor Analysis¹ (CFA) on the three items assessing punitive supervision, as well as the items assessing related constructs. The CFA showed that the punitive supervision items assessed a unique construct, distinct from other leadership constructs, and that the items had an appropriate internal consistency (see Appendix for more details).

4.3.4. ANALYTIC STRATEGY

The data collected from the baseline questionnaire and daily surveys (morning, end-of-workday, bed-time) had a hierarchical structure with two nested levels. At the within-person, or daily level (Level 1), each person provided data on three to seven days. Thus, there were 3-7 measurements of proactive work behaviour, perceived competence, vitality and anxiety (measured in the end-of-workday survey), detachment (measured in the bed-time survey), and finally, vitality and anxiety from the morning survey. At the between-person level (Level 2), each person provided one measurement of punitive supervision.

We ran multi-level analyses using MPLUS 8.0 software (Muthén & Muthén, 1998-2015). Initially, I specified a null model which included all the variables as dependent variables, in order to calculate the intra-class correlation coefficient (ICC) which indicates how much of the variance in each variable exists at the between- versus the within-person level. I then tested the hypotheses with the TYPE=TWOLEVEL RANDOM function across two models.

¹ Full details of the structural model are available from the authors upon request

Model 1 included only Level-1 variables, and was used to test Hypotheses 1, 2, 3 and 5. Vitality and detachment were simultaneously specified as outcome variables. The effects of proactive work behaviour on perceived competence and anxiety were each specified as a random slope in preparation for testing their respective cross-level moderations in the subsequent model. The indirect effects for the energy-generating (proactive work behaviour on vitality via perceived competence) and strain (proactive work behaviour on detachment via anxiety) pathways were specified using the MODEL CONSTRAINT function of MPLUS (Muthén & Muthén, 1998-2015). Model 2 introduced the Level-2 variable (punitive supervision) and was used to test Hypotheses 4 and 6. The moderating effect of punitive supervision was calculated by specifying it as a Level 2 predictor of the vitality and anxiety intercepts (to control for main effects) and of the Level 1 random slopes previously specified.

In both Model 1 and Model 2, previous day perceived competence, morning vitality and morning anxiety were specified as lagged predictors of perceived competence, vitality and anxiety, respectively. Level 1 predictors were person-mean centered (Hofmann & Gavin, 1998; Ohly et al., 2010) whereas the Level 2 predictor was grand-mean centered. Effect sizes were assessed by calculating the proportion of variance accounted for in the within-person variance and between-person variance around the intercepts and slopes (Yeo & Neal, 2006; Zickar & Slaughter, 1999).

4.4. RESULTS

Means, standard deviations and correlations among study variables can be seen in Table 2. The null model indicated that all Level-1 variables had a within-person variance ranging between 50% and 78%, thus supporting the multi-level approach adopted².

² The ICCs were as following: vitality (63%), anxiety (69%), detachment (62%) proactive work behavior (69%), perceived competence (52%).

Table 2. Means, Standard Deviations and Intercorrelations of study 1 variables

| Variables | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|------|------|-------|-------|--------|-------|--------|--------|--------|--------|
| Between-person level | | | | | | | | | | |
| 1. Punitive supervision | 2.38 | .87 | - | | | | | | | |
| Within-person level | | | | | | | | | | |
| 2. Proactive work behaviour (end-of-workday) | 3.26 | .87 | .05 | - | .33** | .07 | -.03 | .26** | -.05 | .09 |
| 3. Perceived competence (end-of-workday) | 3.54 | .85 | -.22* | .59** | - | .07 | -.05 | .26** | -.13** | .10* |
| 4. Vitality (morning) | 3.16 | 1.00 | -.13 | .24* | .30** | - | -.12* | .15* | -.07 | .04 |
| 5. Anxiety (morning) | 1.50 | .69 | .11 | -.04 | -.28** | -.23* | - | -.08* | .18* | -.12* |
| 6. Vitality (end-of-workday) | 3.00 | 1.00 | -.11 | .45** | .46** | .46** | -.18 | - | -.18** | .13* |
| 7. Anxiety (end-of-workday) | 1.53 | .81 | .17 | -.06 | -.30** | -.11 | .64** | -.32** | - | -.23** |
| 8. Detachment (bed-time) | 3.31 | 1.04 | -.23* | .10 | .33** | .33** | -.39** | .45** | -.40** | - |

Note. Correlations below the diagonal represent the between-person level (N = 90-94) whereas correlations above the diagonal are at the within-person level (N = 538-560 depending on the number of missing values in some of the daily surveys). Coefficients above the diagonal were calculated by subtracting participants' daily responses from their respective person-mean score (Snijders & Bosker, 1999).

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

4.4.1. TEST OF HYPOTHESES

Hypotheses 1, 2, 3 and 5 were tested with Model 1. For the energy-generating pathway H_1 stated that proactive work behaviour would be positively associated with perceived competence. Results showed that proactive work behaviour was significantly positively associated with perceived competence ($B = 0.53$, $SE = 0.06$, $p < .001$). Thus, days in which participants reported high levels of proactive work behaviour were associated with higher feelings of competence compared to days in which participants reported lower levels of proactive work behaviour. Therefore H_1 was supported.

H_2 proposed that perceived competence would be positively associated with vitality. In line with my expectations, results showed that perceived competence was significantly positively associated with vitality ($B = 0.24$, $SE = 0.07$, $p < .001$). Because I controlled for levels of vitality in the morning (which was a significant predictor of vitality at the end of the workday, $B = 0.18$, $SE = 0.08$, $p < .05$), this finding suggests that perceptions of competence predict an increase in vitality compared to morning levels. Thus, H_2 was also supported.

H_3 stated that proactive work behaviour would have an indirect positive effect on vitality via perceived competence. Consistent with my predictions, analyses revealed a significant indirect effect of proactive work behaviour on vitality through perceived competence ($B = .12$, $SE = .04$, $p < .01$). The 95% confidence interval was 0.040 for the lower and 0.209 for the upper confidence limit, and therefore did not include zero. Thus H_3 was also supported. That is, on days in

which individuals reported higher levels of proactive work behaviour, they experienced higher levels of competence, which in turn were associated with increased vitality, compared to days in which they engaged in lower levels of proactive work behaviour.

The control variables accounted for 7%, 48% and 23% of the within-person variance in perceived competence, vitality and anxiety respectively. Beyond the control variables, Model 1 accounted for 34% of the within-person variance in perceived competence, 3% of the within-person variance in vitality, 6% of the within-person variance in anxiety, and 50% of the within-person variance in detachment.

Hypothesis 5 was tested with Model 1, whereas Hypotheses 4 and 6 were tested with Model 2. These hypotheses related to the cross-level effects of punitive supervision on the strain pathway. H_4 proposed that daily proactive work behaviour would be positively associated with anxiety only when punitive supervision is high. Analyses revealed that punitive supervision moderated the within-person effect of proactive work behaviour on anxiety, as indicated by the significant interaction term ($B = 0.17, SE = .08, p < .05$). H_5 stated that anxiety at the end-of-day would be negatively associated with detachment at bed-time. Results showed that anxiety was negatively associated with detachment at bed-time ($B = -0.21, SE = 0.06, p < .001$). Thus, days with higher levels of anxiety were associated with lower detachment in the evening compared to days in which participants reported lower levels of anxiety, compared to morning levels.

Because I controlled for levels of anxiety in the morning (which was a significant

predictor of anxiety at the end of the workday, $B = 0.52$, $SE = 0.12$, $p < .001$), this finding indicates that a positive change in anxiety from the morning to the end of workday predicts lower detachment at bed-time of the same day. Thus, H_5 was also supported.

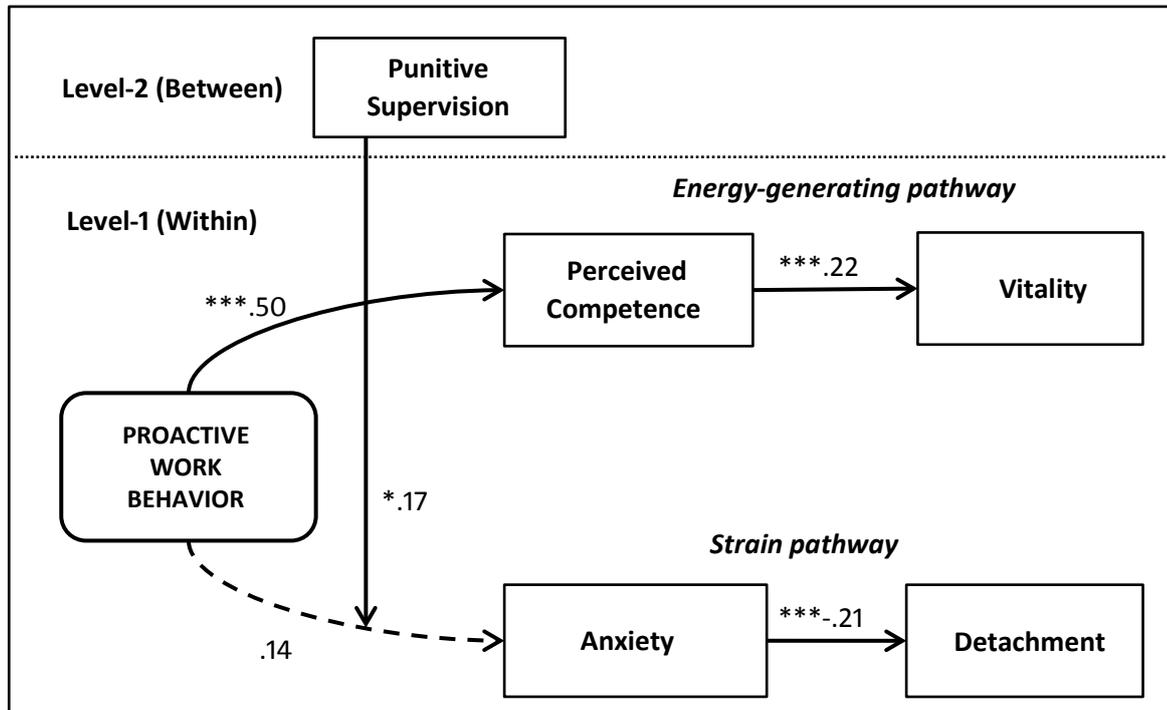


Figure 5. Summary of the daily effects of proactive work behaviour on vitality (via perceived competence) and detachment (via anxiety).

For H_6 , which pertained to the indirect effect of proactivity on detachment (via anxiety) moderated by punitive supervision, I tested the conditional effect at 1 SD above the mean, at the mean, and at 1 SD below the mean of punitive supervision: analyses showed that there was a significant indirect effect of proactive work behaviour on detachment, via anxiety, for those who reported high levels of punitive supervision (+1 SD; $B = -.06$, $SE = .02$, $p < .01$). The indirect effect did not occur when participants reported moderate (at the mean; $B = -.03$, $SE = .02$, $p > .05$) or low levels of punitive supervision (-1 SD; $B = .01$, $SE = .02$, $p > .05$).

Therefore, both H_4 and H_6 were supported. The significant interaction is depicted in Figure 7. I did not formulate a hypothesis regarding the main effect of proactive work behaviour on anxiety, however results suggested a non-significant main effect ($B = .14, SE = .08, p > .05$).

The introduction of punitive supervision in Model 2 accounted for 8% of the between-person variance of the anxiety intercept; and 55% of between-person variance of the proactive work behaviour-anxiety slope.

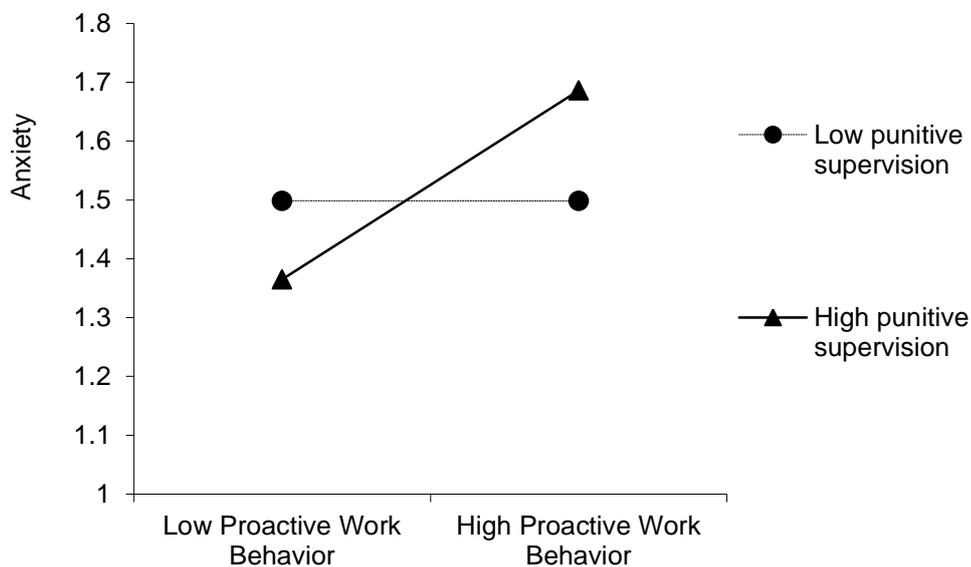


Figure 6. Perceptions of punitive supervision as a moderator of the within-subject relationship between proactive work behaviour and work anxiety, controlling for morning anxiety.

As a follow-up exploratory analysis, I also tested whether punitive supervision would also moderate the effect of proactive work behaviour on vitality, through perceived competence (energy-generating pathway). Results indicated that the cross-level moderation of punitive supervision on the relationship between proactive work behaviour and perceived competence was not significant ($B = -0.08, SE = .09, p > .05$). Therefore, punitive supervision did not moderate the

energy-generating pathway. All the estimates of Model 1 regarding hypotheses 1, 2, 3 and 5 remained significant in Model 2.

These findings held with control variables, including, where relevant, prior levels of variables, enhancing confidence that these findings did not simply reflect common method variance. Furthermore, I performed follow-up cross-over analyses to test whether the hypothesized mediating pathways were stronger than possible alternative pathways (that is, proactive work behaviour predicting vitality through anxiety, and detachment via perceived competence): my analyses suggested that the coefficients of the hypothesized pathways were consistently stronger than the non-hypothesized pathways.

In summary, findings provide full support for the dual-pathway model: for the energy-generating pathway, proactive work behaviour was associated with vitality, and this effect was mediated by perceived competence. For the strain pathway, the negative indirect effect of proactive work behaviour on bed-time detachment via anxiety occurred only for participants who reported their supervisor as highly punitive.

4.5. DISCUSSION

This study set out to shed light on when and how proactivity can influence employees' daily well-being via two distinct processes: a resource-generating pathway and a strain pathway. Understanding the well-being implications of proactivity is an important endeavour because organizations are increasingly reliant upon their employees' proactivity to survive and thrive in business. Yet if

proactive work behaviour is detrimental for employees' well-being, then encouraging this behaviour might backfire on organizations. Thus, understanding how proactive work behaviour affects well-being on a daily basis will inform organizations as to how to best manage the proactive behaviour of their workers.

Overall, findings support the notion that proactivity can yield both positive and negative consequences for employees (Bolino, Valcea, et al., 2010; Cangiano & Parker, 2015). That is, I proposed and found support for a dual-pathway model of proactivity in which engaging in proactive work behaviour can indeed generate a sense of vitality but, at the same time, under certain conditions, can also generate anxiety and interfere with employees' ability to detach from work after hours.

First, in an energy-generating pathway, I found that being proactive at work can increase employees' vitality through perceived competence. That is, findings indicate that on days when people take charge and make things happen at work, they are more likely to feel competent. My results corroborate and extend the findings of Fay and Sonnentag (2012), indicating that the desire to feel competent is not only an important motivator of proactivity, but also a consequence of this behaviour. These results are also consistent with the theorizing by Strauss and Parker (2014), who argued that being proactive at work can serve as a powerful means to experience a sense of achievement in one's work activities. Proactivity is likely to be an important driver of perceived competence because it is challenging behaviour: engaging in challenging activities can promote a sense of mastery and effectance in the surrounding environment, which in turn fuel one's momentary

perceptions of competence. Furthermore, proactive goals often go above and beyond formally written rules and procedures and should therefore boost one's level of perceived competence to a greater extent as opposed to solving an issue using standard work procedures. The self-initiated role of proactive behaviour is also likely to be important by allowing individuals to attribute any immediate positive outcomes to themselves. For these reasons, the effects of daily proactive work behaviour on perceived competence are likely to be stronger than task performance. Future research could test these theorized processes by which proactive behaviour builds a sense of competence in the future.

Additionally, in line with Ryff (1989), and Deci and Ryan (2000), this study has provided support for the idea that experiencing a sense of competence at work is an important determinant of an individual's sense of end-of-day vitality, controlling for morning vitality. Specifically, the data suggest that daily fluctuations in perceptions of competence at work are associated with feelings of vitality. Further, analyses showed that the effect of proactive work behaviour on vitality (controlling for morning vitality) occurred via perceived competence. These findings are theoretically important because they suggest that experiencing a sense of competence is extremely important for employees' well-being because it generates feelings of vitality, which have a number of desirable consequences for employees and organizations (Shirom, 2011).

A further implication of these findings is the possibility that engaging in proactive work behaviour might create positive spirals for individuals. It is known from previous research that feelings of vitality (or other similar activated positive

affective states) can promote proactive work behaviour (Fay & Sonnentag, 2012; Fritz & Sonnentag, 2007; Sonnentag, 2003). In study I show that engaging in proactivity may also in turn increase such feelings for employees, by generating a sense of mastery and competence. Consistent with the idea of accumulation of resources proposed by Hobfoll (1989), employees experiencing vitality are more prone to broaden their control over the surrounding environment, as well as their ability to deal with future challenges (Parker et al., 2012), which is arguably conducive to more proactive behaviour. This means that, even though the process of engaging in proactive work behaviour may indeed consume some resources, more resources are created when proactive behaviour is performed, thus potentially making proactivity a sustainable behaviour in the long run. Future research should explore more closely the issue of sustainability by looking at how the consequences of proactive work behaviour influence future attempts to be proactive over time.

Second, I proposed and demonstrated that behaving proactively may sometimes generate detrimental effects for employees' well-being. In this study, I focused on the circumstances under which proactivity can generate a sense of anxiety in employees and how, in turn, this negatively impacts on employees' psychological detachment after work. Results showed that the extent to which employees perceive their supervisor as punitive can indeed shape whether or not one's proactive behaviour on a given day will generate anxiety. Participants whose supervisors tend to react negatively and blame employees for their mistakes reported greater anxiety on days in which they engaged in proactive behaviour at work. Conversely, my findings showed that this negative effect did not occur for

employees whose supervisors were more 'tolerant' towards mistakes and errors. These results reinforce the idea that supervisors do play an important role in the proactive process - not only in shaping the level of proactivity (Wu & Parker, 2014) - but also in determining the well-being consequences of proactive behaviour. Findings are also consistent with the idea that behaving proactively is a psychologically risky behaviour and, as such, its negative consequences for well-being are distinct from related behaviours such as citizenship, and they operate through different processes (Bindl & Parker, 2011; Koopman et al., 2016; Parker & Bindl, 2017).

Third, by showing the existence of two pathways by which proactive work behaviour affects employees' well-being, this study helps to resolve previous contradictory arguments about the personal consequences of proactivity. On the one hand, proactive work behaviour is positive for employees because it provides opportunities to experience a sense of competence and mastery in their work, which has an energizing effect on their well-being. On the other hand, it can create anxiety and undermine their ability to detach when supervisors are prone to reacting negatively to their mistakes. Overall, this study advances our understanding of the consequences of proactive work behaviour by integrating and complementing the 'bright' (Strauss & Parker, 2014) and the 'dark' side (Bolino, Valcea, et al., 2010; Fay & Hüttges, 2016) of proactivity.

From a practical viewpoint, these results indicate that organizations might benefit from encouraging employees to engage in proactive activities – not only for their performance benefits – but because proactivity increases employees'

feelings of competence, which is energizing. Therefore, organizations may benefit from redesigning jobs in order to provide workers with more autonomy and control to facilitate the onset of proactive work behaviour (Parker et al., 2006). These results also corroborate Grant and colleagues' idea that it is important for supervisors "to create cultures, climates, norms, and reward systems that encourage proactive behaviours" (2009, p. 52). In particular, these findings highlight that it is essential to train supervisors to deal effectively with the proactivity of their employees, including being tolerant of mistakes. If supervisors react negatively to mistakes, then engaging in psychologically risky behaviours such as proactivity may backfire on employees by creating anxiety, lowering detachment and ultimately – one might speculate - reduce the occurrence of proactivity.

4.5.1. STRENGTHS AND LIMITATIONS

This study has several methodological strengths. First, the diary methodology adopted allowed us to explore the dynamics of proactivity at the micro level, without sacrificing ecological validity (Ohly et al., 2010): proactive work behaviour is arguably difficult to capture and manipulate in controlled settings, especially because of the self-initiation component. Longitudinal designs such as the current one provide researchers the opportunity to "capture life as it is lived" (Bolger & Laurenceau, 2013, p. 597) and assess self-initiated behaviours and their consequences in their natural setting. Second, because I person-centered the data, I was able to account and minimize the effect of possible unmeasured individual and contextual differences that may influence the energetic

consequences of proactive behaviour (e.g., proactive personality, general levels of vitality, job resources).

A third, advantage of this study is that - because I controlled for employees' vitality and anxiety levels in the morning, before going to work - results show that proactive behaviour predicts *changes* in daily levels of daily well-being outcomes. Similarly, by controlling for previous day experienced competence, these findings suggest that engaging in proactive behaviour on a given day predicts a positive increase in perceptions of competence from one day to the next.

Nevertheless, this study also has some limitations that might affect the generalizability and robustness of the findings. First, the data is based on self-report variables, which is known to cause common-method variance issues (P. M. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Self-reports are prone to self-bias, such as the bias that people tend to respond to questions in ways that present them in a favourable light rather than reflect their actual behaviour (Paulhus, 2002). To address this issue, I centered all the variables to the individual's weekly average across all days of measurement, given that our focus was on intra-individual fluctuations. By person-mean centering the variables, I ruled out the possible influence of response tendencies due to individual differences between participants, thus partially addressing common-method variance. In addition, it is worth remembering that proactive behaviour is ambiguous for observers to report and is not exempt from bias either (Grant & al., 2009). Therefore, reports from others (e.g., peers and supervisors) might not

always be a more desirable way to assess employees' proactive work behaviour, especially at the day level. Regarding the latter, it might be difficult for supervisors or others to detect daily variations in behaviour unless they work in such a way they can closely observe the participant's behaviour.

A second limitation concerns uncertainty about causality. Because of the research design adopted, the mediating variable - perceived competence - was measured at the same time as proactive work behaviour and vitality (during the end-of-workday survey). Consequently, it could be speculated that when people feel competent, they are also more likely to engage in proactive work behaviour.

However, owing to its self-initiated nature, I contend that proactive behaviour is best conceptualized as an antecedent of perceived competence, rather than as an outcome. In support of this argument, Fay and Sonnentag (2012) considered how experienced competence in core tasks predicts time spent on proactive work behaviour in an experience-sampling study with employees. Their findings showed that low perceived competence predicted an increase in time spent on proactive behaviour, thus implying a negative causal effect of experienced competence on proactive work behaviour. Conversely, in this study I find a positive relationship between proactive work behaviour and experienced competence, which I believe supports the argument that people experience competence as a result of proactivity, rather than the other way around. In support of this causal claim, I controlled for employees' reported levels of competence the previous day, and showed that daily proactive behaviour predicts a positive change in employees' perceived competence from one day to another.

The causal direction of the indirect link between proactive work behaviour and

vitality is also strengthened because I controlled for morning vitality. Moreover, for the strain pathway, the outcome variable - detachment - was measured in the bed-time survey and was therefore temporally separated from all the other variables. This type of approach allows the alleviation of some of the concerns usually associated with common-method variance (P. M. Podsakoff et al., 2003). Additionally, in this analysis, I controlled for levels of anxiety before work to minimize the possible influence of other factors on the dependent variable. Although I acknowledge that it is not possible to draw conclusive causal inferences from this study, I believe that the proposed direction of causality is theoretically sound, and the longitudinal nature of the design helps to establish this direction. Indeed, future research is needed to better understand the causality of this relationship, especially for the energy-generating pathway.

4.5.2. FUTURE RESEARCH

This research highlights questions in need of further investigation. For example, although I found a significant indirect effect of proactive work behaviour on vitality via perceived competence, I did not detect main effects. An implication of this is the possibility that other moderators might affect the relationship between proactive work behaviour and vitality. For example, engaging in proactive work behaviour for extrinsic reasons (e.g., impression management) might drain resources rather than generating them (Bolino, Valcea, et al., 2010). In this vein, research might explore whether controlled forms of proactivity ('pressures' for proactivity) are less likely to increase vitality than autonomous forms of proactive behaviours (Bolino, Hsiung, Harvey, & LePine, 2015; Bolino, Turnley, Gilstrap, &

Suazo, 2010). In my view, feeling compelled by one's organizational environment to behave proactively might create a controlled motivation to be proactive, which is less self-determined and therefore less likely to be beneficial for well-being (Nix, Ryan, Manly, & Deci, 1999).

Further, regarding the consequences of proactivity, it should be noted that not all proactive behaviours are 'created' equal, and therefore different forms of proactivity may yield distinct well-being outcomes. For instance, changing a work procedure implemented by the supervisor is arguably more psychologically risky (as it may be perceived as a personal attack to de-legitimize the leader) compared to proactively helping a colleague without being instructed to do so. It could be argued that the riskier is a proactive behaviour, the greater the possibility that it may generate anxiety in the context of a punitive supervisor. Hence, future research could usefully explore how different types of proactive work behaviour (e.g., proactive helping vs. taking charge) impact on employees' well-being and how different supervision styles shape such outcomes.

Other factors that could be usefully explored in future research include the impact of successful execution (Cangiano & Parker, 2015). Although in this study I considered how employees' perceptions of punitive supervision moderate the extent to which daily proactivity causes anxiety, I did not assess whether successfully completing the activity (or achieving the desired results) decreases the sense of anxiety. For instance, failing to achieve one's proactive goal could significantly weaken the effect of proactivity on perceived competence. Furthermore, I focused on negative supervisor reactions to mistakes: it is

plausible to expect that receiving praise and intrinsic incentives for one's proactive behaviour is likely to generate positive outcomes for employees' well-being. For example, receiving positive feedback and appreciation from co-workers and supervisors might increase the individual's sense of self-esteem and self-efficacy, as well as enhancing feelings of competence and mastery.

Aside from offering the opportunity to experience competence, engaging in proactive behaviour can be positive for employees' well-being in other ways. For instance, actively attacking a problem before it occurs could arguably save a considerable amount of energy and time compared to dealing with it 'reactively' after its manifestation, and may also reduce employees' anxiety by directly addressing potential stressors. I recommend research to examine more closely these processes.

A further direction concerns the longer-term effects of proactive work behaviour on well-being. In this study, I specifically focused on the daily effects of proactive behaviour on subjective well-being. In the long-term the affective outcomes considered in this study may be exacerbated and create more prominent effects. For example, an individual feeling anxious due to engaging in proactive work behaviour in the context of a supervisor that reacts negatively to mistakes, might in the end need to change strategy and adopt a more passive/reactive approach at work to reduce his/her anxiety. From a darker viewpoint, the sense of anxiety induced by being proactive with a punitive supervisor may result in burnout or increased turnover intentions. Future research could usefully explore how proactive work behaviour may trigger virtuous or vicious spirals for employees'

well-being over time.

CHAPTER 5

WHEN TAKING CHARGE CREATES WORK-LIFE CONFLICT AND IMPAIRS DETACHMENT

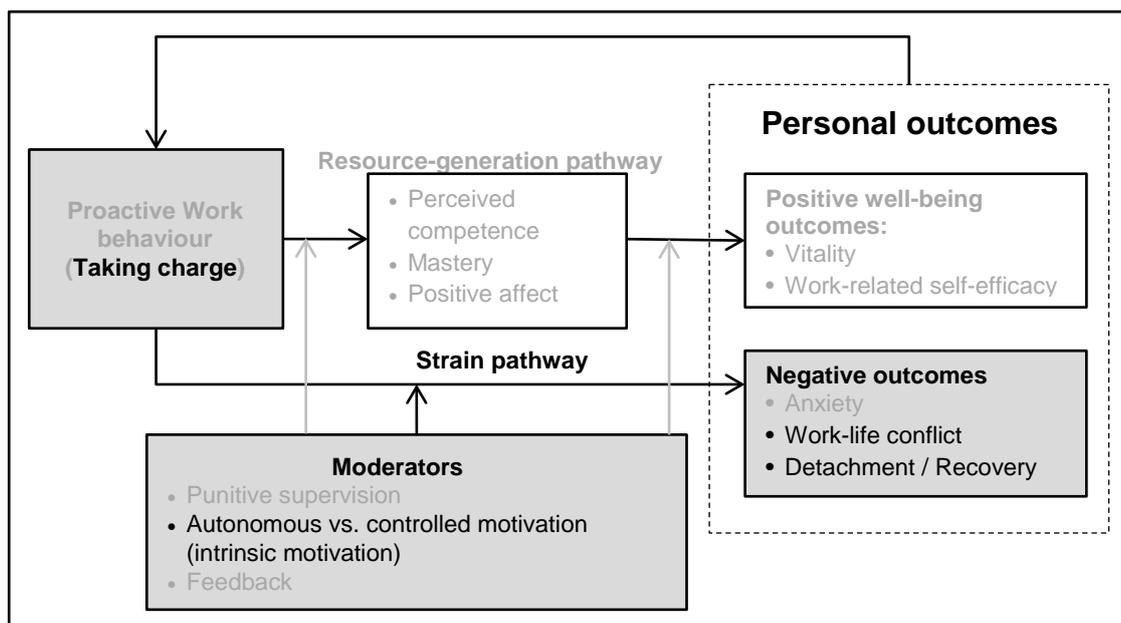
This chapter is based on a journal article manuscript. A version of this manuscript was under review at the time this thesis was submitted. The candidate designed the study, completed the literature review and was responsible for the manuscript preparation and editing (80% estimated overall contribution). Professor Sharon Parker provided suggestions on the statistical analyses and helped prepare the manuscript by editing and providing feedback. Similarly to the previous chapter, some material from the submitted paper (Cangiano, Parker, & Ouyang, under review) has been deleted here to minimise the replication of arguments already put forward in other chapters.

Cangiano F., Parker S. K., & Ouyang, K. (under review). Too proactive to switch off: When taking charge creates work-life conflict and impairs detachment. *Journal of Applied Psychology*.

5.1. FOREWORD

This chapter features a second empirical investigation of the dual-pathway model. This paper is based on a sample of managers distinct from the one used for the study presented in chapter 4. In this diary study I focus on the strain pathway and consider the personal consequences of proactivity with an emphasis on work-life interface issues. Specifically, I examine how employees' intrinsic motivation shapes the daily effects of proactive behaviour⁶ on psychological detachment (via work-life conflict).

Figure 7. Overview of the variables considered in Chapter 5



⁶ The paper presented in this chapter focuses more specifically on taking charge (a subset of proactive behaviour).

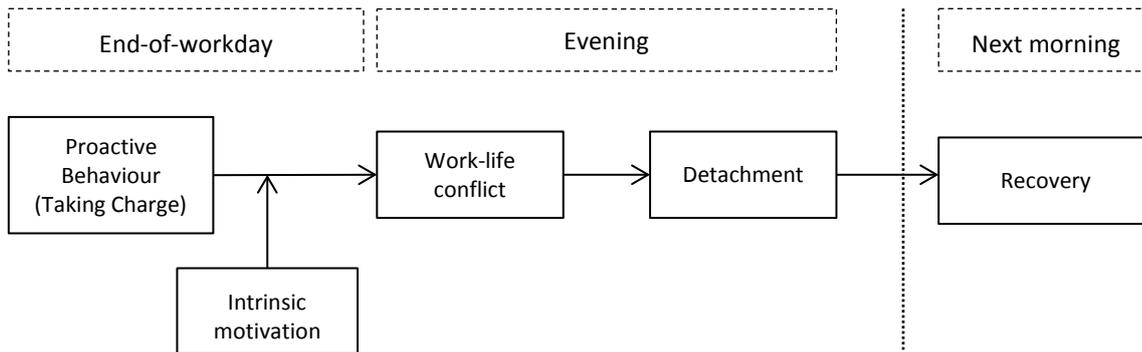
5.2. INTRODUCTION

In this study, I aim to identify how being proactive impacts on employees' ability to psychologically detach from their work (Sonnentag et al., 2010; Sonnentag et al., 2008). Psychological detachment refers to "an individual's sense of being away from the work situation" (Etzion, Eden, & Lapidot, 1998, p. 579), it entails that one is not thinking about job-related issues during off-work time. More specifically, I focus on how being proactive can interfere with the process of detachment, by creating tension between work and life domains. Drawing on ego depletion theory (Baumeister et al., 1998), I propose that engaging in proactive behaviour consumes employees' regulatory resources thereby potentially causing work-life conflict. In turn, being unable to attend to activities outside the work domain hinders employees' opportunities to detach from work and hence recover successfully from demands.

We go further to identify a key moderator of this process. Drawing on self-determination theory, I recognize that one's motivations to be proactive play an essential role, not only in driving proactive behaviour (Parker et al., 2010), but also in shaping its outcomes (Cangiano & Parker, 2015). Therefore, I identify intrinsic motivation as a crucial boundary condition for this process: the less that proactive behaviour is intrinsically motivated, the more regulatory resources it will require (Ryan & Deci, 2008), and the more that work family conflict will be enhanced and, in turn, detachment impaired. In contrast, I suggest that when proactive behaviour is intrinsically motivated, any resources consumed in the process of proactivity will be compensated for via the generation of resources,

thereby resulting in no net interference between home and work, and therefore no negative effect on detachment. Figure 9 shows the overall conceptual model of this paper; which I elaborate shortly.

Figure 8. Hypothesized Research Model



Our study has several important features that help us to test the proposed conceptual model. First, I focus on daily dynamics that are not captured with cross-sectional research designs or with longer term longitudinal studies spanning several months (Bolger & Laurenceau, 2013; Ohly et al., 2010). Although there seems to be a link between an individual’s proactive behaviour and his/her career success (Blickle et al., 2009; Vos et al., 2009), which implies overall long term positive personal consequences of proactive behaviour, at the episodic level proactive behaviour may yield vastly different consequences. For instance, being proactive in certain circumstances might create additional stress and expose the employee to blame and criticism from others (Bolino, Valcea, et al., 2010), whereas in other situations it might generate strong feelings of self-determination (Strauss & Parker, 2014). By investigating proactive behaviour at the day level, it is possible to assess these daily dynamic effects of proactive

behaviour, as well as the mechanisms that underpin these effects.

Second, I focus on taking charge behaviours because this form of proactivity is likely to be reasonably consuming of psychological resources. Proactive behaviours include a wide array of constructs that share the same core characteristics (anticipatory, future-focused and self-initiated) but may have different consequences for individuals. For example, an employee trying to implement a new administrative procedure, which could result in greater organizational profits, will likely have to undertake extra work to design and test this initiative. Conversely, proactive behaviours like voice may require significantly less time and effort. I contend that the more proactive behaviours require resources, the more they have the potential to negatively impact on one's life outside of work. Consequently, some types of voice might be less resource-demanding, and less stressful, compared to behaviours like personal initiative, idea implementation and proactive problem solving. I argue that taking charge is a type of proactivity that requires a reasonable deal of self-regulation to be carried out successfully, which is therefore particularly suited to my research question.

Third, I include in the model 'next morning recovery' as an outcome of detachment. I seek to show that detachment 'matters' for work the next day, consistent with previous research showing that detachment is an important facilitator of recovery, or the replenishment of resources that are drained during work (Sonnentag, 2003). My primary focus is on understanding proactive behaviour and detachment, so it is not my intention to test the full meditational

chain (from proactivity to next morning recovery). However, I nevertheless see it as valuable to show the spill-over effects of detachment to feelings of recovery the next day. I elaborate the specific hypotheses next.

5.2.1. TAKING CHARGE, INTRINSIC MOTIVATION AND WORK-LIFE CONFLICT

Drawing on both self-determination theory and ego depletion theory, I propose that taking charge can result in work-life conflict when one's intrinsic motivation is low. I argue this effect occurs because, when intrinsic motivation is lacking, taking charge will result in ego depletion that causes a negative home-work conflict. The idea that work experiences influence employees after they leave the workplace is not new in the literature (Grzywacz & Marks, 2000; Sonnentag & Binnewies, 2013; Wagner et al., 2014). Work-life (or work to life) conflict refers to “competing role pressures brought on by activities that are related versus unrelated to work, such that fulfilling one's work responsibilities makes it difficult to attend to activities outside the work domain, and vice versa” (Greenhaus & Beutell, 1985; Siegel, Post, Brockner, Fishman, & Garden, 2005, p. 13). Work-life conflict not only harms one's life outside of work domain (e.g., life dissatisfaction, depression, cardiovascular illness, substance abuse; Allen, Herst, Bruck, & Sutton, 2000), but it also has repercussions on the work domain: work life-conflict has been shown to increase job dissatisfaction (Hughes & Bozionelos, 2007), job strain (Hammer, Saksvik, Nytrø, Torvatn, & Bayazit, 2004), turnover intentions, and absenteeism (Hobson, Delunas, & Kesic, 2001).

We propose that, when work experiences result in ego depletion, work-life

conflict will be enhanced. According to ego depletion theory, behaviours, thoughts or actions that require self-regulation and effortful volition drain energy, and result in a state of *ego depletion* (Baumeister et al., 1998), which indicates “a temporary reduction in the self’s capacity or willingness to engage in volitional action (including controlling the environment, controlling oneself, making choices, and initiating action), caused by prior exercise of volition” (Baumeister et al., 1998, p. 1253). Over the years, the ego depletion phenomenon received a considerable amount of empirical support (see M S Hagger et al., 2010). Research in this field suggests that this ego depletion effect occurs across various domains, for example: controlling thoughts, regulating emotions (Muraven et al., 1998), making decisions (Vohs et al., 2008), helping others people (DeWall et al., 2008), and resisting persuasion (Wheeler et al., 2007).

Although the work-life conflict consequences of regulatory depletion have not been explored extensively, there is evidence that being in a state of ego depletion can increase work-life conflict. In a recent experience sampling study with bus drivers, Wagner et al. (2014) showed that daily emotional labour (i.e., a subset of ego depletion specific to emotions) was associated with increased emotional exhaustion, work-to-family conflict and insomnia. Being in a state of ego depletion can make it difficult for an employee to fully engage in one’s life and family roles. This is because employees in such state are arguably unlikely to have sufficient mental and physical energy to dedicate time and effort to family, friends and personal hobbies.

5.2.2. MODERATING ROLE OF INTRINSIC MOTIVATION

The extent to which taking charge impairs work-life conflict because of regulatory depletion is closely tied to the motivations that lead people to engage in this behaviour. By integrating self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000) with ego depletion theory (Baumeister et al., 1998), I argue that there will be a negative effect of taking charge on work-life conflict, and hence on detachment, only when an individual's level of intrinsic motivation is low. Theoretically, because taking charge is a self-initiated and self-directed behaviour, it is often motivated by an innate interest or enjoyment in the task itself (intrinsic motivation) or because it helps to achieve goals that are extremely important to the self (identified and integrated regulation) (Parker et al., 2010; Ryan & Deci, 2008). Nonetheless, scholars have recognized that organizations sometimes expect taking charge behaviour from their employees and seek to control it, such as by withholding promotions or offering financial rewards for proactivity, suggesting that this behaviour is not always intrinsically motivated (Cangiano & Parker, 2015). For instance, a recently hired employee on probation may engage in taking charge behaviour with the aim of increasing the likelihood to retain the new job. Under this scenario, taking charge is indeed self-initiated, but the goal is to achieve or retain an extrinsic end. Similarly, taking charge behaviour may be performed as part of impression management strategies in order to gain promotions and monetary rewards (Grant & Mayer, 2009).

According to Ryan and Deci (2008), non-intrinsically motivated actions will consume self-regulatory resources and are therefore more likely to drain resources. Aside from these executive functions, I suggest that engaging in

proactive behaviour can affect one's regulatory resources, thus potentially triggering an ego depletion state. There is some evidence to expect this: Muraven et al. (1998) found that responding actively (as opposed to passively) during a task required the same kind of energy used for self-regulation. Later on, Vohs et al. (2008) explored in an experimental study how making a series of choices impacted on self-initiative and active responding (a construct in some respect very similar to proactivity). Their findings showed that participants experiencing a state of ego depletion (induced through the progressive-choice task) were likely to behave more passively than those who were not depleted; namely, they waited significantly longer than the non-depleted participants to notify the experimenter of an equipment problem. Therefore, it appears that, in order to behave proactively, individuals need to rely on self-regulation.

However, when proactivity is intrinsically motivated it should not create ego depletion. Intrinsic motivation refers to behaviour driven by internal rewards. In other words, intrinsic motivation occurs when an individual engages in an activity for the sake of the activity itself (Ryan & Deci, 2000). The state of ego depletion is only induced when people use effortful regulation of their thoughts, behaviours and emotions (Ryan & Deci, 2008). Conversely, dozens of studies have shown that intrinsically motivated behaviour does not involve effortful volition (see Ryan & Deci, 2008).

In sum, I propose that one's level of intrinsic motivation is crucial in determining the regulatory demands of proactive behaviour, and hence the likelihood of experiencing work-life conflict. When intrinsic motivation is high, taking charge

will be less likely to rely on effortful regulation, thus requiring less self-regulation. Conversely, when intrinsic motivation is low, a greater level of effortful regulation will be required to engage in taking charge behaviour, hence consuming more regulatory resources. When regulatory resources are low, the reduced availability of energy will impact on employees' likelihood to actively engage in activities and interpersonal interactions in the personal-life domain, thus causing work-life conflict (Greenhaus & Beutell, 1985; Rothbard, 2001).

Therefore:

Hypothesis 1. Under conditions of low intrinsic motivation, taking charge is associated with higher work-life conflict.

5.2.3. THE EFFECTS OF WORK-LIFE CONFLICT ON DETACHMENT

When individuals are unable to fully engage in their lives outside of work there are significantly fewer opportunities to unwind and detach from work (Sonnentag et al., 2008). Psychological detachment refers to “a state in which people mentally disconnect from work and do not think about job-related issues when they are away from their job” (Sonnentag, 2012, p. 114). Several studies have shown that employees who manage to detach from work experience less psychological strain, physical symptoms and ultimately are more likely to feel recovered and perform well the following day (Sonnentag, 2012; Sonnentag & Binnewies, 2013; Sonnentag et al., 2010; Sonnentag et al., 2008). In general, people with high levels of involvement in their work role tend to have more difficulties to detach from work (Sonnentag & Fritz, 2007). Previous research has found that receiving support from family and friends can facilitate the process of

detachment (Shimazu, De Jonge, Kubota, & Kawakami, 2014). However, when employees are unable to fully engage with their roles outside of work, the process of detachment should be less likely to occur. In summary, I hypothesize the following:

Hypothesis 2. Work-life conflict is negatively associated with psychological detachment in the evening.

MODERATED MEDIATION EFFECT

Hypothesis 1 proposes that taking charge is associated with work-life conflict when employees experience low intrinsic motivation. Hypothesis 2 proposes that work-life conflict is negatively related to psychological detachment in the evening. Together, these hypotheses suggest a model in which the indirect effect of taking charge on detachment via work-life conflict is moderated by intrinsic motivation. In other words, when employees experience a low sense of intrinsic motivation, engaging in taking charge behaviours at work drains self-regulatory resources and is detrimental to the process of detachment only when employees experience a low sense of intrinsic motivation. Therefore:

Hypothesis 3. Intrinsic motivation moderates the indirect effect of taking charge on detachment, through work-life conflict, such that work life mediates this indirect effect only when employees report low levels of intrinsic motivation.

5.2.4. DETACHMENT AND RECOVERY

In organizational psychology the term recovery is commonly referred to as the

process of ‘undoing’ the strain caused by stressors and demands at work (Sonnentag & Fritz, 2015). Studies have shown that being unable to rest and recover from work may yield serious negative consequences for employees’ well-being (e.g., Fritz & Sonnentag, 2005; Geurts & Sonnentag, 2006). However, successful recovery is not merely a matter of amount of time available off-work; a pivotal role in the process of recovery is played by the quality of the recovery activities that individuals engage in (Sonnentag & Bayer, 2005; Sonnentag & Fritz, 2015; Westman & Eden, 1997). In this vein, detachment is a core pillar of the recovery process: when individuals experience not only a physical, but also a mental sense of ‘being away’ from the workplace in their off-work time, they are more likely to feel rested the following day at work (Sonnentag, 2012; Sonnentag et al., 2010; Sonnentag & Fritz, 2015; Sonnentag & Krueger, 2006), which is in turn predictive of engagement and work performance (Binnewies et al., 2010; Fritz & Sonnentag, 2005; Sonnentag, 2003). Therefore, I propose that:

Hypothesis 4. Psychological detachment in the evening predicts recovery the next morning.

5.3. METHODS

5.3.1. SAMPLE

The sample consisted of 77 Australian managers employed in a range of industries. Managers are particularly suited to proactivity research because they normally possess a considerable degree of autonomy in their daily work, which is an important facilitator of proactive work behaviour (Griffin et al., 2007; Parker

& Collins, 2010). At the time of the study, all participants were enrolled in a part-time Master in Business Administration at the University of Western Australia. Participants' mean age was 34.6 years (SD = 6.4) and about 54% were males. On average, tenure was 4.21 years (SD = 4.05 years) and participants had on average 2.6 years of experience in their current job (SD = 2.6).

After agreeing to participate in the study, participants were invited to a short briefing session, wherein they received detailed information about the study purpose and the participation process. The diary data was collected using a smartphone survey application (iSurvey & droidSurvey), which was installed on participants' smartphones or tablets during the study briefing (see Appendix B). During the briefing session, managers were also given information on how to download the daily surveys on their smartphones and when to complete them. Even though the diary activity was designed to be part of a unit on self-development, participation was voluntary and students could withdraw from the study at any point in time without notice.

The study consisted of two stages. In stage 1, I asked participants to complete a 10-minute online survey before taking part in the diary activity. This survey measured participants' demographics and general information about their job. In stage 2, I asked participants to complete three daily surveys for 5 consecutive working days. The first survey was completed in the morning, before going to work (morning survey). A second survey was completed before the end of the workday (end-of-workday survey). The third daily survey was to be completed within an hour before going to bed (evening survey). Each daily survey took

approximately two minutes to complete. In return for their participation in the study, participants were invited to attend a dedicated one-hour workshop on employee well-being and recovery from work stress, in which they received a personalized feedback report based on the surveys. Overall, I collected a total of 902 measurement occasions across 3-5 working days.

5.3.2. MEASURES

To keep length of the daily survey to a minimum, I used a subset of 1-3 items from each scale (Ohly et al., 2010). All items (except for demographics) had to be answered on 5-point Likert scales.

Taking charge. Daily taking charge behaviours were assessed in the end-of-workday survey using the following two items “today, I tried to bring about improved procedures in my workplace” and “Today, I tried to institute work methods that are more effective”. The response scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The items were adapted from Parker and Collins (2010).

Intrinsic motivation. Participants reported their intrinsic motivation by responding to the following item adapted from Gagné et al. (2015): “Today, I worked hard because the tasks I did were enjoyable”, using a 5-point Likert-type scale anchored at 1 = *strongly disagree* and 5 = *strongly agree*. Intrinsic motivation was measured in the end-of-workday survey.

Work-life conflict. Work-life conflict was measured with three items adapted from Netemeyer, Boles, and McMurrian (1996): An example item is: “Today, my

work has taken up time that I would have liked to spend with my family/friends”. Work-life conflict was measured in the evening survey on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Evening Psychological Detachment. Psychological detachment from work was assessed with two items adapted from Sonnentag et al. (2008). An example item is “This evening, I did not think about work at all” on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Psychological Detachment was measured in the evening survey.

Morning Recovery. To assess participants’ recovery from work stress, I developed the following item: “How recovered do you feel from yesterday's work?”. The response scale ranged from 1 (not recovered at all) to 5 (*extremely recovered*). Recovery was measured in the morning survey.

Control variables. Previous research suggests that workload is positively associated with proactive behaviour, even though evidence is somewhat mixed (Fay & Sonnentag, 2002; Sonnentag & Fritz, 2007). At the same time, workload is strong negative predictor of detachment in the evening (Sonnentag & Bayer, 2005). Therefore I controlled for end-of-day workload in the model.

5.4. RESULTS

The diary data I collected had a hierarchical structure with two nested levels: the between-person level (level 2) and the within-person level (level 1). Means, standard deviations and zero-order correlations can be seen in Table 3. The correlation coefficients shown below the diagonal represent the daily variables

aggregated at the person level ($N = 77$). To obtain these correlations, I calculated the average across all measurement occasion per given variable. To calculate the correlation coefficients shown above the diagonal, instead, I subtracted the each person-mean score from each observation, so as to reflect purely intra-individual variation ($N = 254- 365$) (Snijders & Bosker, 1999).

The findings show, as would be expected given the hypotheses, that taking charge was significantly positively associated with work-life conflict at the within-person level ($r = .17, p < .01$) work-life conflict was significantly associated with detachment ($r = -.24, p < .001$) as well as recovery ($r = -.21, p < .01$). At the between-person level there was no significant correlation between taking charge and work-life conflict ($r = -.06, p > .05$). However, work-life conflict was negatively associated with detachment ($r = -.49, p < .001$) and recovery ($r = -.41, p < .001$).

In regard to other correlations, at the within-person level, work-life conflict was correlated with workload ($r = .16, p < .01$) and intrinsic motivation ($r = -.15, p < .05$). At the between-person level, taking charge was correlated with workload ($r = .14, p < .01$), although no there was no relationship at the within-person level of analysis ($r = .06, p > .05$). Taking charge was significantly associated with intrinsic motivation both at the between-person ($r = .32, p < .001$) and the within-person level ($r = .28, p < .001$).

Prior to testing the hypotheses I computed the Intra-Class-Correlations for all the variables to verify whether a multi-level approach was appropriate for the analyses. Overall, analyses indicated that the variables had a total within-person

variance ranging from 60% to 76%, thus requiring a multi-level approach to the analyses. Given that my goal was to explore how daily fluctuations of taking charge behaviour relate to work-life conflict, detachment and recovery, all the variables were person-mean centered using the participants' mean across the measurement (Hofmann & Gavin, 1998; Ohly et al., 2010). Analyses were run using MPLUS 7.4 software (Muthén & Muthén, 1998-2015).

To test hypotheses 1, 2 and 3, I ran a hierarchical multilevel model using Mplus TYPE=COMPLEX function with evening detachment, and morning recovery, as the dependent variables to take the non-independence of observations into account. All the study variables were assessed at the within-person level. I ran these analyses with and without workload (modelled at the within-subject level) as a control variable. Results pertaining to the main hypotheses were not affected by the presence of the control variable. Therefore, in line with Becker's (2005) recommendations I deleted workload from the analyses to avoid any unnecessary decline in statistical power.

For hypothesis 4 (concerning the effects of evening detachment on morning recovery), I created a lagged variable of evening detachment and regressed it on recovery. Given that recovery was measured in the morning survey, whereas detachment was measured in the evening survey, I adopted this approach to establish the temporal precedence of detachment.

Table 3. Means, Standard Deviations, and Correlations among Study 2 Variables

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|--|------|------|--------|--------|---------|---------|---------|--------|
| 1. Taking charge (end-of-workday) | 3.37 | .84 | - | .28*** | .17** | -.01 | .06 | .01 |
| 2. Intrinsic motivation (end-of-workday) | 3.48 | .98 | .32*** | - | -.15* | .19** | -.12* | .05 |
| 3. Work-life conflict (evening) | 2.67 | .91 | -.06 | -.14* | - | -.24*** | .16** | -.21** |
| 4. Psychological detachment (evening) | 3.54 | 1.05 | .04 | .35*** | -.49*** | - | -.30*** | -.09 |
| 5. Workload (end-of-workday) | 2.70 | 1.06 | .14** | -.11* | .50*** | -.31*** | - | .29 |
| 6. Recovery (morning) | 3.23 | 1.00 | .11* | .43*** | -.41*** | .33** | -.19*** | - |

NOTES. Correlations below the diagonal represent the between-person level (N = 77) whereas correlations above the diagonal are at the within-person level (N = 254-365 depending on the number of missing values in some of the daily surveys). Coefficients above the diagonal were calculated by subtracting participants' daily responses from their respective person-mean score (Snijders & Bosker, 1999).

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

5.4.1. TEST OF HYPOTHESES

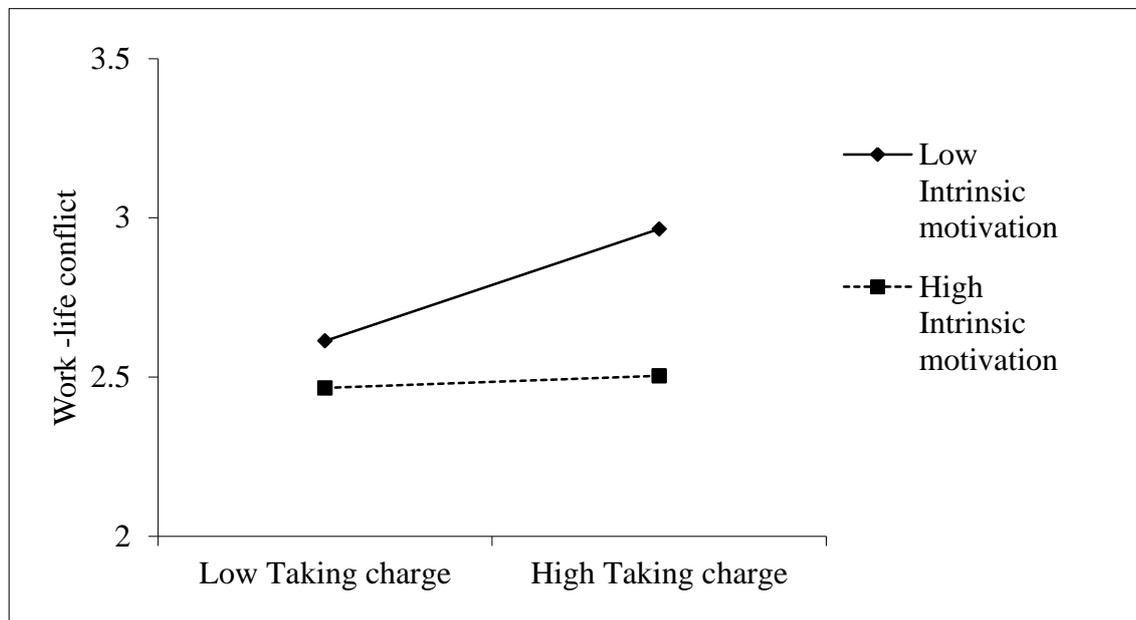
Hypothesis 1 stated that taking charge behaviour would be associated with work-life conflict only when intrinsic motivation is low. To test this, I ran a regression model in which both intrinsic motivation, taking charge and their interaction were entered simultaneously in the model. Results indicated that the main effect of taking charge on work-life conflict was not significant ($B = 0.16$, $SE = .08$, $p = .06$), whereas intrinsic motivation had a significant negative main effect ($B = -0.24$, $SE = .10$, $p < .05$). In line with my expectations, the interaction term between intrinsic motivation and taking charge was significant ($B = -.20$, $SE = .05$, $p < .001$). A plot of the interaction effect is shown in Figure 10. Specifically, on days in which participants reported low levels of intrinsic motivation, taking charge behaviours were associated with higher levels of work-life conflict.

Conversely, when intrinsic motivation was high, taking charge did not result in higher work-life conflict after work. Thus, hypothesis 1 received full support. For hypothesis 2, analyses revealed that there was a significant association between work-life conflict and evening detachment ($B = -.46$, $SE = .16$, $p < .05$), such that greater work-life conflict was associated with reduced detachment in the evening. Therefore, hypothesis 2 was also supported.

Hypothesis 3 stated that taking charge would have an indirect effect on detachment through life conflict only when intrinsic motivation is low. To test the moderated mediation model (Preacher, Rucker, & Hayes, 2007), I included intrinsic motivation as a within-subject moderator of the indirect effect of taking charge on detachment, via work-life conflict. I tested the conditional effect at 1

SD above the mean, at the mean, and at 1 SD below the mean on intrinsic motivation. Analyses showed that there was a significant indirect effect of taking charge on detachment via work-life conflict only when intrinsic motivation is low (-1SD) ($B = -.16, SE = .08, p < .05$). The indirect effect did not occur when participants reported moderate (at the mean; $B = -.07, SE = .05, p = .15$) or high levels of intrinsic motivation (1SD above the mean; $B = .02, SE = .05, p = .07$). In summary, these findings provide support to the moderated mediation model: on days in which participants reported low levels of intrinsic motivation, taking charge behaviours were associated with reduced evening detachment, with this effect mediated by work-life conflict. Therefore, hypothesis 3 was also supported.

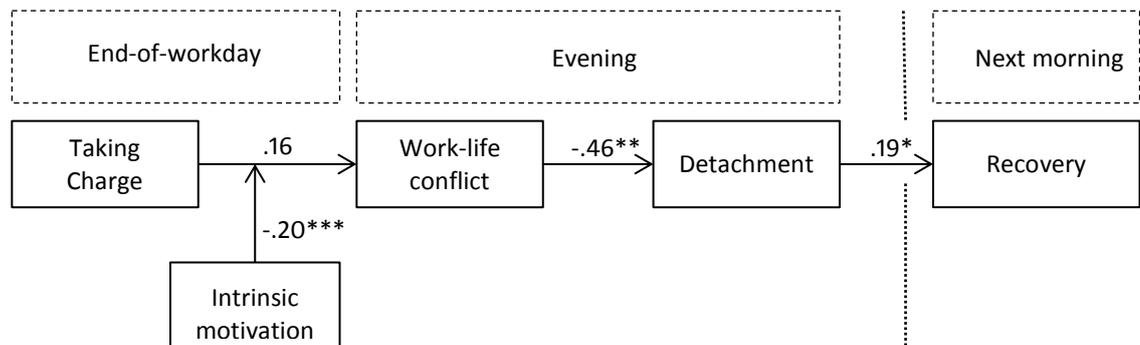
Figure 9. Intrinsic motivation moderates the effect of taking charge on work-life conflict.



Finally, hypothesis 4 stated that detachment in the evening would be positively

associated with recovery the following morning. To test this, I created a new one-day lagged variable of detachment and computed a simple regression model with recovery in the morning as the dependent variable. Consistent with predictions, analyses revealed that evening detachment was a significant predictor of recovery the following morning ($B = 0.19, SE = .09, p < .05$). Hence, hypothesis 4 was also supported. An overview of the overall model can be seen in Figure 11.

Figure 10. Path analysis of the effects of taking charge on detachment, via work-life conflict



Unstandardized estimates for the regression weights are reported.

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

5.5. DISCUSSION

The purpose of this study was to investigate how behaving proactively at work impacts on employees' daily work-life balance. Specifically, I explored when and how taking charge behaviour interferes with the process of detachment and recovery from work-demands during non-work time. Although some studies have looked at the effects of citizenship behaviour and personal initiative on work-life

conflict (Bolino & Turnley, 2005; Lam, Wan, & Roussin, 2016), this is – to my knowledge - the first study to explicitly consider how proactive behaviour at work impacts on employees' work-life conflict.

5.5.1. THEORETICAL AND PRACTICAL IMPLICATIONS

One of the most significant findings to emerge from this investigation is that one's level of intrinsic motivation at work can indeed shape the work-life consequences of proactivity: when one's intrinsic motivation is low, proactive behaviour interferes with the process of detachment by causing work-life conflict. As expected, I did not observe the same effect when intrinsic motivation is high. From a broader viewpoint, these findings indicate that intrinsic motivation is not only a strong motivator of proactivity (Parker et al., 2010), but also an important factor to consider when looking at the personal consequences of this way of behaving (Cangiano & Parker, 2015).

Findings from this research provide several insights into the management of proactive behaviour. This study corroborates the idea that proactive behaviour, per se, is a 'win-win' situation for the employee and the employer: on the one hand, proactivity benefits the organization by boosting the performance of employees and increasing firm success (Frese & Fay, 2001; Grant et al., 2009); on the other hand, being proactive at work can increase perceptions of competence (Strauss & Parker, 2014) and benefit one's professional career (Blickle et al., 2009; Vos et al., 2009). However, because of its resource-demanding nature, proactive behaviour that is not intrinsically motivated can turn out to be detrimental for employees and hurt their life outside of work. Indeed, organizations should aim

to create an environment that encourages employees to take charge and use their personal initiative without undermining intrinsic motivation. For example, organizations should note that extrinsic rewards may ultimately reduce intrinsic motivation (Deci et al., 1999). For instance, introducing formal assessments of proactive behaviours during performance appraisals or providing monetary rewards might create extrinsic pressure for proactivity, with the effect that intrinsic motivation is reduced. The results show that when individuals are not intrinsically motivated, proactive behaviour can backfire and cause work-life conflict, thus undermining the process of detachment and recovery from work demands.

5.5.2. LIMITATIONS AND FUTURE RESEARCH

In future investigations, scholars could explore how other types of motivations (or motivational profiles) influence the consequences of proactivity. For instance, researchers could investigate whether high levels of identified motivation operate in a similar way as is the case for intrinsic motivation. That is, if individuals are engaging in taking charge because it is personally important (albeit not very interesting) proactivity may not be experienced as depleting for employees. The question also arises as to the effects of proactivity on work-life conflict and detachment when either introjected or extrinsic motivation is high. For example, if proactivity is performed as means to obtain a promotion, this may be experienced as depleting, which in turn could increase work-life conflict.

It should be noted that these results only apply to taking charge and cannot be generalized to all proactive behaviours. In the analyses, I controlled for voice

behaviours and failed to detect the same effects. This seems to suggest that different types of proactive behaviours may have differential outcomes for employees: high resource-demanding behaviours such as taking charge might be more detrimental for work life-conflict when intrinsic motivation is low compared to behaviours like voice, which are arguably less resource-demanding for employees. Further research could systematically assess the resource implications of different types of proactive behaviour.

As noted above, I did not actually measure the mechanism of ego depletion. Thus, even though results were consistent with this theoretical mechanism, there might be other plausible processes underpinning the effects. One possible explanation of these results can be sought in the unaccounted role of positive affect. Previous research has linked intrinsic motivation with the experience of positive affect (Isen & Reeve, 2005) and has shown that it can facilitate creative thinking and problem solving (Estrada, Isen, & Young, 1994). Positive affect is also known to act as a 'buffer' against the effects of ego depletion, by helping to restore self-regulatory resources (Tice, Baumeister, Shmueli, & Muraven, 2007). Therefore, it is also plausible that moderating effect of intrinsic motivation on the relationship between proactive behaviour and work-life conflict is in fact mediated by positive affect. Additionally, it should be acknowledged that the ego depletion theory has received significant criticism over the last few years, with scholars questioning the size of the ego depletion effect (Martin S Hagger et al., 2016), thus requiring cautious interpretation of the theoretical approach adopted in this thesis until the critique of the theory can be satisfactorily addressed.

It is plausible to expect that such effects of proactivity on work-life conflict also depend on other factors that affect resource requirements. For instance, an employee's family circumstances may exacerbate or mitigate such effects. In a similar vein, the overall workload may play a moderating role: if one's overall workload is generally low, engaging in taking charge behaviour may not necessarily create work-life conflict, regardless of one's motivation to do so. Conversely, taking charge behaviour performed in the context of an already highly demanding job may well amplify the effects of proactivity on work-life conflict.

In conclusion, I believe that as employees become increasingly expected to take charge and behave proactively at work, it is essential to understand how this impacts on their life outside of work. If proactive behaviour undermines the process of detachment from work demands, this can result in insufficient recovery and ultimately impact on subsequent performance.

CHAPTER 6

GENERAL DISCUSSION

The aim of this thesis was to explore the personal consequences of proactive work behaviour from a well-being perspective. In chapter 3, I proposed a theoretical dual-pathway model of consequences that simultaneously considers positive (resource-generating) and negative (strain-generating) outcomes of proactivity. In chapter 4, I tested the dual-pathway model in a diary study with a particular focus on the energetic outcomes of proactivity and the role of supervisor support of such behaviours. In chapter 5, I examined more closely the strain pathway of proactivity in another diary study from a work-life interface viewpoint. Specifically, I explored the effects of taking charge (a type of proactive behaviour) on work-life conflict and detachment, and the moderating role of intrinsic motivation. In this final chapter, I first summarise the findings of chapters 3-5, and then discuss the implications of this research as a whole, with an emphasis on future research directions.

6.1. SUMMARY OF FINDINGS

In Chapter 3 I began the investigation into the individual consequences of proactivity by outlining a theoretical model. Specifically, I proposed a dual-

pathway model of personal consequences of proactive behaviour from a well-being perspective that takes into account both the mediating processes and the moderating factors that shape these pathways. The theoretical framework of the dual-pathway model revolves around conservation of resources theory: proactivity can be instrumental in obtaining resources, by eliciting a sense of self-determination, but may also become depleting for employees under certain circumstances (e.g., when the proactive behaviour is not intrinsically motivated).

In Chapter 4 I presented the first empirical study of this research, which tests the dual-pathway model outlined in Chapter 3. Specifically, I found that daily proactive behaviour can allow employees to experience a sense of mastery and competence, which in turn increases their feelings of vitality at work. However, analyses also showed that for employees who perceived their supervisors as punitive, behaving proactively resulted in increased anxiety after work, which in turn was associated with poorer detachment. This is because when employees are afraid to be punished for mistakes, self-initiated actions generate a feelings of anxiety. This first empirical study provided support for the central premise of this thesis that proactive behaviour may yield both positive and negative outcomes for employees' well-being, depending on the circumstances in which is performed.

In Chapter 5 I presented the second empirical study of this thesis, which zooms in on the strain pathway and considers the outcomes of proactivity (more specifically taking charge behaviours) from a work-life balance perspective.

Findings from this study suggested that engaging in proactive behaviour at work

does not per se impair work-life balance and detachment from work demands. Rather, results indicated that proactivity is detrimental to employees' detachment only when one's work motivation is not intrinsic. This indicates that intrinsic motivation is not only a strong driver of proactivity, but can also shape its consequences for employees.

6.2. OVERALL THEORETICAL CONTRIBUTIONS

This thesis contributes to the literature of proactive behaviour in several ways. First, it considers the outcomes of proactivity predominantly from an individual's well-being perspective. In the last two decades the majority of research on proactivity that did focus on the outcomes of this behaviour has generally considered career-related outcomes; for instance, supervisors' evaluations (Grant et al., 2009), both self-rated and objective performance indicators (Crant, 1995). The model presented in chapter 2 consider specifically how engaging in proactive behaviour can benefit or impair individual's well-being, as well as the factors that moderate these effects.

Second, the two empirical studies (Chapters 3 & 4) consider proactivity from an episodic perspective – namely, how specific daily proactive behaviour impacts on employees' energy and work-life balance after work – rather than examining how general predispositions to be proactive are associated with general well-being indicators (e.g., life satisfaction). I argue that such approach offers tangible advantages when it comes to making causal inferences regarding the outcomes of proactivity by limiting possible reciprocal influences and confounding factors

that could occur when considering general levels of proactive behaviour (e.g., are energised employees more likely to be proactive or is it being proactive that generates feeling of vitality?).

Third, the dual-pathway model introduced in chapter 2 includes a thorough examination of possible moderating and mediating factors for the outcomes of proactivity. I contend that a careful consideration of contextual factors (both personal and situational) is essential in understanding how proactive behaviour affects employees' well-being. This is due to the fact that proactivity is a complex multi-stage behaviour that may be driven by various motivational forces; this is supported by findings across the two empirical studies of this research project: no significant main effects were found between daily proactive behaviour and well-being indicators, which reinforces the idea moderating and mediating variables must be accounted for. The dual-pathway model discussed in this thesis is not only a preamble for the two empirical studies presented in Chapters 3 and 4, but it also serves as a solid foundation for future research considering the personal outcomes of proactive behaviour, which this research hopes to stimulate.

This research does not claim to have examined all possible factors that may shape the well-being outcomes of proactivity; rather, it hopes to stimulate future research endeavours to obtain a more comprehensive overview of the factors that influence the consequences of proactivity, so as to better inform organisations regarding how to promote and sustain proactive behaviours. Indeed, this research has shown that proactivity requires resources and can, under certain circumstances, become depleting for employees. Nonetheless, the central

message of this investigation is that proactivity can be a 'win-win' situation for the employee and the employer, whereby both actors can mutually benefit: on the one hand employees can feel a heightened sense of competence and mastery in their work, while on the other hand employers can rely on workers that are able to perform (but also adapt and innovate) without close supervision.

Findings from this thesis suggest that the consequences of employees' proactivity are indeed multi-faceted. In essence, proactive work behaviour has a 'bright' side for employee well-being, but also can have a 'dark' one. Understanding how proactivity generates and/or depletes individual resources can shed light on the way in which we should promote this behaviour for it to be sustainable from a well-being perspective. In chapter 4 it was shown that although proactivity can be an intrinsically motivating behaviour that may help employees to feel competent in their work, the way supervisors respond to their workers' proactivity could impact whether proactive behaviours result in the generation versus the depletion of resources. Similarly, findings from the paper presented in chapter 5 highlight the fact the proactivity may also have non-intrinsic motivational underpinnings, in which case it is more likely to drain resources and impact on employees' life outside of work.

6.3. PRACTICAL IMPLICATIONS

This thesis offers several implications for practitioners. First, this research suggests that there can be beneficial effects of proactivity on well-being, and these could potentially be part of a positive spiral: Being proactive at work can serve as

a powerful means experience a sense of competence in one's work, which in turn increases vitality. These motivational effects can be particularly important in jobs whose core tasks do not provide many chances to feel self-determined at work (Fay & Sonnentag, 2012).

However, taking charge and making things happen at work is a process that requires substantial goal-regulation to be carried out. Past research has indicated that 'going the extra mile' and/or using one's personal initiative can often entail further demands on top of core duties (Bolino & Turnley, 2005; Bolino, Valcea, et al., 2010). To prevent role stressors from arising and causing strain, managers should provide structural and emotional support to proactive employees.

Furthermore, findings from this research offer a number of tangible suggestions for organisations regarding how to encourage and manage proactive behaviour to maximise its positive personal outcomes whilst minimising potential drawbacks. In terms of rewards, this research indicates that extrinsic rewards are not necessarily negative per se for proactive employees: as long as workers have some degree of intrinsic motivation to be proactive, then proactive behaviour should be less likely to harm their well-being. Indeed, if proactive behaviour is solely motivated by extrinsic factors – for example the desire to be noticed by managers and other co-workers – then it is not only more likely to be more self-serving in nature and less useful to the organisation (Bolino, Valcea, et al., 2010), but also more prone to drain resources and cause fatigue. It is therefore important to avoid implementing reward systems using incentives that can reduce intrinsic motivation. By way of illustration, formally assessing frequency and valence of

proactive behaviours in performance appraisals may give the impression that proactivity is 'expected' from employees.

It is recommended that interventions to increase and reward proactive behaviour focus on building a shared sense of organizational identity among workers to provide more motivations to be proactive that lay closer to autonomous side of the controlled-autonomous continuum (Gagné & Deci, 2005). For example, if workers take pride in and identify with the company, they are more likely to be proactive to truly benefit the organisation, rather than for self-serving purposes (Van Dick, Grojean, Christ, & Wieseke, 2006). In turn, this is also likely to prevent potentially damaging outcomes of proactivity for their well-being.

This research project also offers valuable implications regarding how managers and supervisors should respond to the proactivity of their employees: if the organisation values proactive behaviour, then supervisors should strive to be responsive to the proactive efforts of their employees. This could be achieved by acting on the ideas and suggestions of their workers to the best of their ability. If the proactive behaviour is not aligned with organisational goals, managers could acknowledge the employee's effort while providing constructive feedback and suggestions for improvement. Although supervisors' feedback in relation to proactivity was not measured in this research, it is plausible to expect that feedback can interfere considerably with the positive outcomes of proactive behaviour. As discussed in chapter 3, providing negative feedback to outcomes resulting from proactive behaviours may trigger a conservation of resources mechanism, which may discourage further attempts to be proactive in the future.

Feedback, therefore, should be contingent and behaviour-oriented, rather than outcome-oriented. Positive reinforcement is also crucially important: employees' proactive actions should be praised by supervisors in order to encourage more proactivity.

From a work-life interface perspective, employers who expect their workforce to be highly proactive should take steps to ensure proper segmentation between the work and life of their employees. Although having workers constantly think about work even at home may sound appealing to some employers, this research suggests that such situation is only likely to be beneficial in the short-term. In the long-term, employees unable to detach and recover from work demands will be more prone to experience emotional exhaustion, health problems and, ironically, be less proactive in the future due to lack of energy (Sonnentag, 2003) (Fritz & Sonnentag, 2005, 2009; Geurts & Sonnentag, 2006; Sonnentag & Zijlstra, 2006).

Altogether, results from this research suggest that proactive behaviour per se can potentially be a win-win situation for the employer and the employee: a way to experience a sense of mastery and competence for the employee whilst improving organisational effectiveness and adaptivity. However, as shown in this thesis, this will largely depend upon the circumstances under which proactivity is performed.

6.4. LIMITATIONS AND FUTURE RESEARCH

Before discussing the limitations of this thesis, note that the specific limitations of each study included in this work were discussed in the discussion section of

each chapter. In this section, I focus on the broader issues and the limitations of this thesis as a whole.

LIMITATIONS AND ASSOCIATED FUTURE RESEARCH

There are a number of important limitations that need to be addressed. First, because the data from both studies was collected using self-reported measures, the findings are potentially vulnerable to common-method variance issues (P. M. Podsakoff et al., 2003). For instance, participants tend to respond to questions in ways that present them in a favourable light, even though such responses do not really reflect their actual behaviour (Paulhus, 2002). To account for this, all the variables were person-mean centered to the individual weekly average across all days of measurement, so as to rule out the possible influence of different response tendencies within the sample.

Second, due to the intra-individual nature of my research questions, the sample recruited for study two did not allow enough statistical power to explore other possible cross-level interactions with variables at the person level (e.g., individual differences, work design). Future research could usefully explore the factors that mitigate or worsen the negative consequences of proactive behaviour on employees' well-being and life outside of work at the within and between-person level. For example, it is conceivable to expect that one's number of dependants (and their age) is a variable likely to exacerbate the effects of proactive behaviour on work-life conflict due to the increased amount of regulatory resources necessary to deal with family responsibilities. Similarly, within-level processes such as sleep quality may also shape the effects of proactive behaviour by

diminishing regulatory resources.

Additionally, it is worth noting that some mediators of the pathways of the model presented in this thesis were not empirically tested in this research. For example, while the study presented in chapter 4 tested perceived competence as a mediator of the resource-generation pathway, perceived mastery and positive affect were not tested. Future research considering the well-being outcomes of proactivity could, for instance, investigate whether daily proactivity is associated with greater feelings of mastery, and if this in turn increases self-efficacy perceptions.

A further limitation concerns the sample recruited across the two empirical studies. Participants were volunteers enrolled in a part-time MBA. Although participants were employed in a wide array of managerial positions in several different industry sectors, it should be acknowledged that more research is needed to generalize these findings to a broader working population.

Another important overall limitation of this thesis that must be addressed is the fact that only the short-term consequences of proactivity were considered. While little research has focused on the short-term effects of proactivity on well-being, even less work has investigated this relationship from a long-term perspective. Several important questions are still unanswered in this respect: for example, do proactive employees more develop more resilience in the face of life challenges, resulting in longer-term well-being? It is even possible that individuals who behave proactively gain positive benefits, which then leads them over time to become more proactive in multiple life domains (that is, proactive personality

might be developed as individuals more routinely engage in proactivity), which then shapes their longer-term well-being. I argue that, in order to understand the impact of proactivity on well-being, it is also relevant to examine the potential outcomes of proactive behaviour in the long run. In the next section, I briefly discuss possible long-term consequences of proactive behaviour that could be usefully explored in future research.

LONG-TERM OUTCOMES OF PROACTIVITY

One subject that needs to be addressed now is why being proactive at work can build resources that should be beneficial to well-being in the long-run. Personal resources are self-evaluations generally referring to individuals' ability to control and impact the environment surrounding them (Hobfoll, Johnson, Ennis, & Jackson, 2003). Self-evaluations are different from momentary perceptions of competence (as described in chapter 4), as the former reflect are more trait-like (i.e., less likely to fluctuate over time and be influenced by situational contingencies, as opposed to a transitory psychological state). Past research has shown that, aside from being strictly correlated to psychological resilience (i.e., the capacity to bounce back and make it through hard times), yield also favourable effects on individuals' psychological and emotional well-being (Judge & Hurst, 2008; Kammeyer-Mueller, Judge, & Scott, 2009; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007).

According to Hobfoll's conservation of resources theory, gaining resources at work has a potential to expand a person's resource pool, thus increasing the likelihood that additional resources are obtained (in a virtuous circle).

Conversely, employees lacking resources are more vulnerable to further resource loss (Hobfoll & Shirom, 2001; Llorens, Schaufeli, Bakker, & Salanova, 2007).

Drawing on these theoretical approaches, I consider two key personal resources - organisation-based self-esteem and internal locus of control - that proactive behaviour sustained over time is likely to develop: I consider organisation-based self-esteem because proactivity is self-initiated and often transcends written job descriptions, thus reflecting and showcasing an employee's ability as an organisational member. Further, I focus on internal locus of control as the very nature of proactivity emphasises the importance of taking control of a situation and making things happen, rather than passively reacting to events (Bindl & Parker, 2011; Griffin et al., 2007). Finally, I discuss proactivity from a broader life-span developmental perspective and examine ways in which proactive behaviour could be instrumental for successful aging.

PROACTIVITY AND ORGANISATION-BASED SELF-ESTEEM

Performing proactive work behaviour has a great potential to enhance on employees' self-esteem, particularly as an organisational member. Organisation-based self-esteem (OBSE) is commonly defined as a self-evaluation about one's capability, significance, and worthiness as a member of an organisation (Pierce, Gardner, Cummings, & Dunham, 1989). By definition, OBSE is can be considered as a context-specific resource. There are several reasons to hypothesise an effect of proactive behaviour over OBSE. For instance, the ability to go above and beyond standard work procedures, anticipate problems and implement proactive solutions should increase one's perceptions of worthiness as an organisational

member. Further, instead of waiting to be instructed what to do in a given situation, behaving in a proactive manner is also a strong signal to others members regarding our capacity to work autonomously and without close supervision (Bowling, Eschleman, Wang, Kirkendall, & Alarcon, 2010). In sum, I anticipate that a hypothetical feedback loop between proactive behaviour and OBSE: that is, the more frequently a person engages in proactivity (and the more the outcomes), the more positive should be one's self-evaluation as an organisational member. In turn, having high self-esteem can indeed increase the likelihood to be proactive in future, in a positive upward spiral. It is important to note that such spirals of resource accumulation may operate over different time scales compared to the variables examined in this thesis: for example, organisation-based self-esteem may be less susceptible to daily changes compared to other more 'malleable' resources such as self-efficacy or feelings of mastery. This represent a challenge for future research as it will be necessary formulate specific hypothesis regarding the temporal dynamics of these spirals in order to elaborate adequate research designs.

PROACTIVITY AND INTERNAL LOCUS OF CONTROL

Ultimately, being proactive at work is likely to increase employees' feelings of control at work. According to Rotter (1966), locus of control (LOC) refers to the extent to which individuals believe that they can control events affecting their lives. LOC is a construct that attracted a great deal of attention over the last fifty years. People with a high internal LOC (i.e., believing that events happening to them are largely determined by their own actions) are more likely to perform well

at work, be satisfied and committed to their job, be less stressed, and have a greater salary (Ng, Sorensen, & Eby, 2006; Ryon & Gleason, 2014). Although LOC has been traditionally considered as a stable trait (Sandler & Lakey, 1982), recent research has begun to look at its intra-individual variability. In 2008, Keeton and colleagues measured LOC variations across a year's span, and found that increases in control were associated with lower anxiety and depression. Similarly, Ryon and Gleason (2014) demonstrated that daily levels of hassles and anxiety predicted short-term variations in LOC. Overall, these findings seem to suggest a certain malleability of locus of control across time.

Drawing on social learning theory, Ryon and Gleason (2014) suggested that “personal experiences, such as the onset of a serious illness, reinforce or disconfirm beliefs about the level of control one has over one's outcomes creating a reinforcement history or cycle” (p. 2). In fact, proactive behaviour is by definition self-directed, which entails greater sense of control compared to other prescribed tasks. Core tasks, for instance, are more likely to rely on standard procedures, as they identify what is prescribed to do in a certain job position. Instead, proactive behaviour often involves going beyond role requirements that can be formalised (Griffin et al., 2007). Therefore, by eliciting greater feelings of control on the events people experience at work, proactivity sustained over time has the potential to increase employees' internal LOC.

A LIFESPAN DEVELOPMENTAL PERSPECTIVE ON PROACTIVITY

Aside from building resources, proactive behaviour in the long run could be instrumental in helping individuals to age successfully (Zacher, 2015; Zacher &

Kooij, 2017). As employees age, their physical stamina and fluid cognitive ability (e.g., problem solving and abstract reasoning) inexorably decline. In turn, this results in a reduced pool of resources available to individuals to deal with obstacles and challenges and perform well in their work. According to Zacher and Kooij, successful aging indicates “the achievement or maintenance of relatively favourable subjective and objective work outcomes (compared to average or normative levels of outcomes) as employees age” (2017, p. 267). Proactive behaviour could be helpful to deal with such age-related changes by optimising the way in which one’s limited resources are invested. The model of selection, optimization and compensation posits that these three developmental regulatory processes are essential to minimise losses and maximise gains associated with aging (Baltes & Dickson, 2001). According to this model, successful aging occurs when individuals are able to select and prioritise goals based on personal preference (*selection*), optimise their developmental potential by maximising gains (*optimisation*), and minimising the loss of resources (*compensation*). Because these strategies are self-initiated and future-oriented actions, they can be considered proactive behaviours instrumental to manage resources. From this perspective, behaving proactively can not only be useful to experience a sense of vitality and build resources, but may also benefit an employee’s well-being by optimising available resources (Zacher & Kooij, 2017).

OTHER RESEARCH DIRECTIONS

Other factors that could be usefully explored in future research include the impact of feedback and successful execution (Cangiano & Parker, 2015).

Regarding feedback, I contend that proactive work behaviour is likely to generate more resources when employees are praised for such behaviour. Receiving positive feedback and appreciation from co-workers and supervisors might increase the individual's sense of self-esteem and self-efficacy, as well as enhancing feelings of competence and mastery. Future research could also explore how well-being be affected if colleagues resent proactivity. For example, co-workers may feel uncomfortable by someone else's proactivity as this could make them look less capable in comparison and compel them to behave similarly not to feel inferior. This frustration could translate into disdainful behaviour towards the proactive colleague, or even sabotaging behaviour, which may eventually be detrimental to the well-being of the proactive employee (Bolino, Valcea, et al., 2010).

Building on the findings presented in chapter 4 and 5, future research could explore the effects of daily proactive behaviour on sleep. Insomnia and lost sleep have been linked with various organisational outcomes including workplace injuries (Barnes & Wagner, 2009), job dissatisfaction (B. A. Scott & Judge, 2006) and unethical behaviour (Barnes, Schaubroeck, Huth, & Ghumman, 2011).

Research questions that could be asked include whether being proactive could generate work-related rumination that in turn may undermine sleep (Querstret & Copley, 2012), particularly when the proactive behaviour is unwelcomed or underappreciated by supervisors and colleagues. Interestingly, recent studies suggest that not all work-related thoughts during off-work time are detrimental to recovery, so it is possible that problem-solving pondering may not necessarily

be detrimental to sleep (Vahle-Hinz, Mauno, de Bloom, & Kinnunen, 2017).

Conversely, proactive behaviour that results in affective rumination may impact on sleep more severely.

Finally, it would be interesting to assess the effects of job insecurity on the motivations to be proactive and, in turn, how this can shape the consequences of proactive behaviour. In an ever-increasingly globalized world, job insecurity and work intensification are on the rise (Guillén, 2001). Proactive behaviours are crucial for organisations to survive in today's dynamic work contexts. However, a lack of job security may create extrinsic incentives to be proactive at work to impress supervisors, thus increasing the likelihood to retain a job. Feeling compelled to be proactive in order to preserve one's job may well place an additional burden on employees, increasing stressors associated with their role. In this regard, findings from this thesis suggest that when employees are low in intrinsic motivation, engaging in proactive behaviour may drain resources and backfire on them. This is not particularly encouraging as increasing levels of job insecurity may significantly shift employees' motivations towards the controlled side of the motivational continuum (Gagné & Deci, 2005; Ryan & Deci, 2000, 2008) From a different viewpoint, taking charge and voice behaviours may also threaten one's job security by challenging the status quo, particularly if the wrong action is taken (Parker et al., 2010). This phenomenon is likely to be exacerbated in environments where supervisors tend to punish employees for their mistakes.

METHODOLOGICAL CHALLENGES

From a methodological perspective, it should be noted that research considering

the personal consequences of proactivity is mostly correlational in nature (e.g., Janssen, 2004). However, we have observed a surge in longitudinal studies (for instance, Bindl et al., 2012; Bledow, Rosing, & Frese, 2013; Madrid, Patterson, Birdi, Leiva & Kausel, 2014), including the two empirical studies presented in this thesis. Diary studies (Bolger & Laurenceau, 2013), particular, can turn out to be particularly useful to explore the underlying processes and mechanisms regulating the consequences of proactivity, given that affective and energetic experiences often occur on a momentary basis. Researchers should investigate the type of emotional reactions people experience when engaging in proactivity at work, as well as the crucial factors that mitigate or exacerbate such reactions. Longitudinal studies could allow studying proactivity from an episodic approach and examine possible positive/negative spirals (Fredrickson & Branigan, 2005). For example, it would be interesting to explore if successful proactive behaviours are associated with the experience of pride and contentment, and whether, in turn, these emotions encourage further proactivity. In this regard, designs that allow measuring affective experiences multiple times a day (e.g., before work, at work and after work) could help understand the causal links between affect and proactive behaviour.

One important challenge to consider in daily diaries is the temporal dimension of proactivity: owing to its regulatory nature, proactivity can be considered a process involving several stages (Bindl et al., 2012). As a result, capturing the personal consequences of proactivity represents a challenging task. As an illustration, implementing a new work procedure is arguably a time-demanding

proactive goal that may take days, weeks or even months to be eventually achieved. It is plausible to believe that the striving aspects of such goal would be associated with different demands compared to the feelings experienced once the final goal is achieved. One way of tackling this issue would be to utilize the day reconstruction method (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004): this research technique would allow researchers to study the consequences of proactivity relationship using an episodic approach and better understand the personal consequences of proactive behaviour. Given that proactivity is a self-initiated and self-directed behaviour difficult to artificially manipulate in a controlled setting, experimental designs are less viable option to establish causal links. In sum, longitudinal designs represent in my view a viable way to explore both the short and long-term consequences proactivity, which could potentially address several limitations of existing the research on the topic.

6.5. CONCLUSIONS

In summary, this research set out to explore the personal consequences of proactive behaviour from a well-being viewpoint. Drawing from various theories of personal energy and motivation, it was found that proactive behaviour does not yield unanimous consequences for employees. A noteworthy inference of this work is that in order to truly understand the consequences proactive behaviour on one's well-being it is essential to take into consideration the context in which the behaviour is performed, as well as one's motivations to pursue proactive goals. The dual-pathway model presented in this thesis represent a robust framework to examine the consequences of proactivity from a holistic

perspective: with regards to the resource-generation pathway, this research showed that engaging in proactive behaviour is a viable means to experience a sense of mastery and competence in one's work activities, which in turn boosts feelings of vitality that energize employees. With respect to the strain pathway, these findings suggest that proactivity is more likely to be detrimental for employees when their supervisors react negatively to employees' mistakes. Additionally, these results suggest that proactive behaviour does not necessarily interfere with the process of detachment and recovery from work demands, as long as the behaviour is not exclusively motivated by extrinsic factors. It is hoped that these findings pave the way for future research regarding the consequences of proactive behaviour, as well as providing a solid and evidence-based set of ideas for the design of future interventions to encourage and reward proactive behaviour in organisational settings.

APPENDIX A

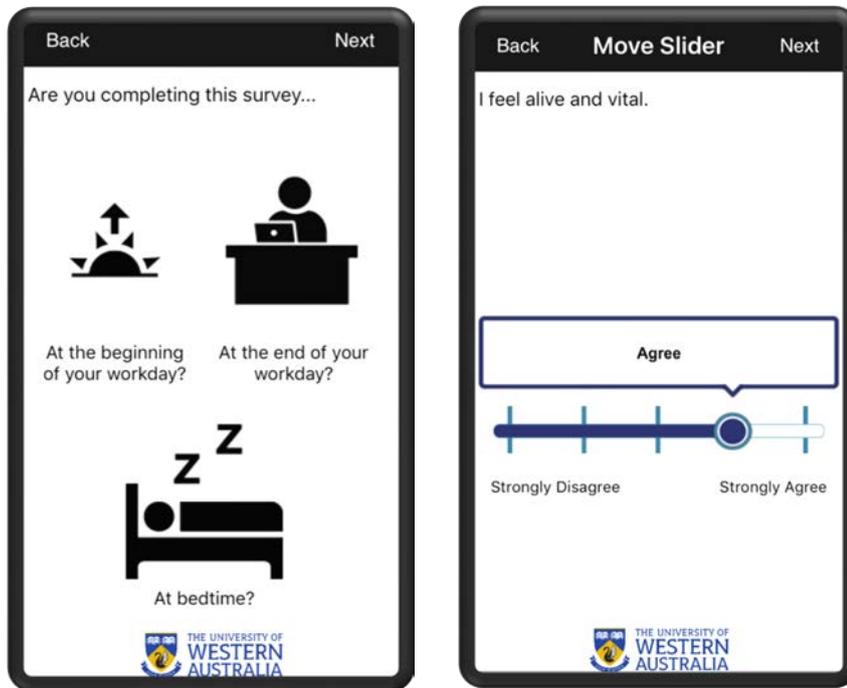
Table 4. Factor Loadings and Alphas for Punitive supervision, Transformational Leadership Dimensions, Developmental leadership and Team Climate.

| Item | <i>M (SD)</i> | PS | V | IS | IC | PR | DL | TC |
|---|---------------|-----|-----|-----|-----|-----|-----|-----|
| 1. My supervisor: gets angry or upset with staff if they make a mistake | 2.39 (1.04) | .90 | | | | | | |
| 2. My supervisor: takes responsibility away from staff if they make an error or mistake | 2.42 (0.95) | .57 | | | | | | |
| 3. My supervisor: blames staff personally if things go wrong | 2.26 (1.03) | .84 | | | | | | |
| 4. My supervisor: Has a clear understanding of where the organization is heading in the future. | 3.61 (1.12) | | .88 | | | | | |
| 5. My supervisor: Expresses a clear direction for the future of the work unit. | 3.37 (1.01) | | .93 | | | | | |
| 6. My supervisor: Creates an exciting and attractive image of where the work unit is going. | 3.14 (1.04) | | .75 | | | | | |
| 7. My supervisor: Challenges me to think about old problems in new ways. | 3.14 (1.13) | | | .88 | | | | |
| 8. My supervisor: Encourages me to question my assumptions about work. | 3.18 (1.10) | | | .89 | | | | |
| 9. My supervisor: Stimulates me to rethink the way I perform my job. | 3.06 (1.10) | | | .93 | | | | |
| 10. My supervisor: Instills a sense of pride in our unit by focusing on what we do well. | 3.51 (0.96) | | | | .90 | | | |
| 11. My supervisor: Inspires confidence by saying positive things about the work unit. | 3.6 (0.93) | | | | .91 | | | |
| 12. My supervisor: Encourages staff to believe in themselves and in the unit. | 3.54 (0.91) | | | | .79 | | | |
| 13. My supervisor: Rewards good performance. | 3.25 (0.96) | | | | | .82 | | |
| 14. My supervisor: Acknowledges good work. | 3.81 (0.95) | | | | | .87 | | |
| 15. My supervisor: Provides positive feedback on a job well done. | 3.73 (0.98) | | | | | .92 | | |
| 16. My supervisor: Encourages staff to develop their job-related skills. | 3.56 (1.00) | | | | | | .88 | |
| 17. My supervisor: Suggests training to improve my ability to carry out my job. | 3.22 (1.18) | | | | | | .86 | |
| 18. My supervisor: Coaches staff to help them improve their on-the-job performance. | 3.04 (1.10) | | | | | | .82 | |
| 19. I can express my true feelings regarding my job. | 3.31 (1.01) | | | | | | | .81 |
| 20. I can freely express my thoughts. | 3.52 (0.96) | | | | | | | .81 |
| 21. Expressing your true feelings is welcomed. | 3.20 (0.97) | | | | | | | .77 |
| 22. Nobody in my unit will pick on me, even if I have different opinions. | 3.48 (1.04) | | | | | | | .61 |
| 23. In our team we can freely share our ideas, feelings, and hopes. | 3.52 (0.94) | | | | | | | .89 |
| 24. I can talk freely about difficulties I am having at work and know that others in my team will want to listen. | 3.39 (1.02) | | | | | | | .89 |
| 25. My team members and I would feel a sense of loss if one of us was transferred and we could no longer work together. | 3.39 (1.10) | | | | | | | .80 |
| Cronbach's Alpha | | .79 | .88 | .92 | .87 | .88 | .85 | .90 |

Notes. Factor loadings with standard error in parentheses. CFA = Confirmatory Factor Analysis. PS = Punitive Supervision, V = Vision, IS = Intellectual Stimulation, IC = Inspirational Communication, DL = Developmental Leadership, PR = Personal Recognition. Punitive Supervision was significantly correlated with the following latent variables: Vision ($r = -.25$), Inspirational Communication ($r = -.38$), Personal Recognition ($r = -.39$), Developmental Leadership ($r = -.41$), Team Climate ($r = -.50$).

APPENDIX B

Figure 11. Example survey questions as they appeared to participants



CONSOLIDATED REFERENCE LIST

- Allen, T., Herst, D., Bruck, C., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*(2), 278-308.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal, 39*(5), 1154-1184.
- Ashford, S. J., & Cummings, L. L. (1985). Proactive feedback seeking: The instrumental use of the information environment. *Journal of Occupational Psychology, 58*(1), 67-79.
- Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior, 24*(1), 45-68.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209-223.
- Baltes, B. B., & Dickson, M. W. (2001). Using life-span models in industrial-organizational psychology: The theory of selective optimization with compensation. *Applied Developmental Science, 5*(1), 51-62.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122-147.
- Barnes, C. M., Schaubroeck, J., Huth, M., & Ghumman, S. (2011). Lack of sleep and unethical conduct. *Organizational Behavior and Human Decision Processes, 115*(2), 169-180.
- Barnes, C. M., & Wagner, D. T. (2009). Changing to daylight saving time cuts into sleep and increases workplace injuries. *Journal of Applied Psychology, 94*(5), 1305-1317.
- Baron, R. A. (1988). Negative effects of destructive criticism: Impact on conflict, self-efficacy, and task performance. *Journal of Applied Psychology, 73*(2), 199-207.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior, 14*(2), 103-118.

- Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74(5), 1252-1265.
- Baumeister, R. F., & Vohs, K. D. (2007). Self-Regulation, ego depletion, and motivation. *Social and Personality Psychology Compass*, 1(1), 115-128.
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8(3), 274-289.
- Belschak, F. D., & Hartog, D. N. (2010). Pro-self, prosocial, and pro-organizational foci of proactive behaviour: Differential antecedents and consequences. *Journal of Occupational and Organizational Psychology*, 83(2), 475-498.
- Berger Peter, L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, NY: Anchor Books.
- Bettencourt, L. A. (2004). Change-oriented organizational citizenship behaviors: The direct and moderating influence of goal orientation. *Journal of Retailing*, 80(3), 165-180.
- Bindl, U. K., & Parker, S. K. (2011). Proactive work behavior: Forward-thinking and change-oriented action in organizations. *APA handbook of industrial and organizational psychology* (Vol. 2, pp. 567-598). Washington, DC, US: American Psychological Association.
- Bindl, U. K., Parker, S. K., Totterdell, P., & Hagger-Johnson, G. (2012). Fuel of the self-starter: How mood relates to proactive goal regulation. *Journal of Applied Psychology*, 97(1), 134-150.
- Binnewies, C., Sonnentag, S., & Mojza, E. J. (2010). Recovery during the weekend and fluctuations in weekly job performance: A week-level study examining intra-individual relationships. *Journal of Occupational and Organizational Psychology*, 83(2), 419-441.
- Bledow, R., & Frese, M. (2009). A situational judgment test of personal initiative and its relationship to performance. *Personnel Psychology*, 62(2), 229-258.
- Bledow, R., Rosing, K., & Frese, M. (2013). A dynamic perspective on affect and creativity. *Academy of Management Journal*, 56(2), 432-450.
- Blickle, G., Witzki, A., & Schneider, P. B. (2009). Self-initiated mentoring and career success: A predictive field study. *Journal of Vocational Behavior*, 74(1), 94-101.

- Bolger, N., & Laurenceau, J. P. (2013). *Intensive longitudinal methods: An introduction to diary and experience sampling research*. New York, NY: Guilford Press.
- Bolino, M. C., Hsiung, H. H., Harvey, J., & LePine, J. A. (2015). "Well, I'm tired of tryin'!" Organizational citizenship behavior and citizenship fatigue. *Journal of Applied Psychology, 100*(1), 56-74.
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work-family conflict. *Journal of Applied Psychology, 90*(4), 740-748.
- Bolino, M. C., Turnley, W. H., Gilstrap, J. B., & Suazo, M. M. (2010). Citizenship under pressure: What's a "good soldier" to do? *Journal of Organizational Behavior, 31*(6), 835-855.
- Bolino, M. C., Valcea, S., & Harvey, J. (2010). Employee, manage thyself: The potentially negative implications of expecting employees to behave proactively. *Journal of Occupational and Organizational Psychology, 83*(2), 325-345.
- Bowling, N. A., Eschleman, K. J., Wang, Q., Kirkendall, C., & Alarcon, G. (2010). A meta-analysis of the predictors and consequences of organization-based self-esteem. *Journal of Occupational and Organizational Psychology, 83*(3), 601-626.
- Brien, M., Forest, J., Mageau, G. A., Boudrias, J. S., Desrumaux, P., Brunet, L., & Morin, E. M. (2012). The basic psychological needs at work scale: Measurement invariance between Canada and France. *Applied Psychology: Health and Well-Being, 4*(2), 167-187.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology, 42*(1), 116-131.
- Cangiano, F., & Parker, S. K. (2015). Proactivity for mental health and well-being. In S. Clarke, T. M. Probst, F. Guldenmund, & J. Passmore (Eds.), *The Wiley Blackwell Handbook of the Psychology of Occupational Safety and Workplace Health* (pp. 228-250). Chichester, UK: John Wiley & Sons, Ltd.
- Cangiano, F., Parker, S. K., & Ouyang, K. (2017). *Too proactive to switch off: When taking charge creates work-life conflict and impairs detachment*. Manuscript submitted for publication.
- Cangiano, F., Parker, S. K., & Yeo, G. B. (2016). *When proactivity wears you out (and when it doesn't): Energy-generating and energy-depleting effects of daily proactive work behavior*. Manuscript submitted for publication.

- Chiaburu, D. S., Oh, I.-S., Berry, C. M., Li, N., & Gardner, R. G. (2011). The five-factor model of personality traits and organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology, 96*(6), 1140-1166.
- Clegg, C., Unsworth, K., Epitropaki, O., & Parker, G. (2002). Implicating trust in the innovation process. *Journal of Occupational and Organizational Psychology, 75*(4), 409-422.
- Crant, M. J. (1995). The Proactive Personality Scale and objective job performance among real estate agents. *Journal of Applied Psychology, 80*(4), 532-537.
- Crant, M. J. (2000). Proactive behavior in organizations. *Journal of Management, 26*(3), 435-462.
- Cropley, M., & Millward Purvis, L. (2003). Job strain and rumination about work issues during leisure time: A diary study. *European Journal of Work and Organizational Psychology, 12*(3), 195-207.
- Csikszentmihalyi, M. (2000). *Beyond boredom and anxiety*. San Francisco, CA: Jossey-Bass.
- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management, 25*(3), 357-384.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*(6), 627-668.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268.
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, NY: University Rochester Press.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin, 27*(8), 930-942.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512.

- Den Hartog, D., & Belschak, F. D. (2012). When does transformational leadership enhance employee proactive behavior? The role of autonomy and role breadth self-efficacy. *Journal of Applied Psychology, 97*(1), 194-202.
- Detert, J. R., & Treviño, L. K. (2010). Speaking up to higher-ups: How supervisors and skip-level leaders influence employee voice. *Organization Science, 21*(1), 249-270.
- DeWall, C. N., Baumeister, R. F., Gailliot, M. T., & Maner, J. K. (2008). Depletion makes the heart grow less helpful: Helping as a function of self-regulatory energy and genetic relatedness. *Personality and Social Psychology Bulletin, 34*(12), 1653-1662.
- Dollard, M. F., & Bakker, A. B. (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology, 83*(3), 579-599.
- Earley, P. C., Northcraft, G. B., Lee, C., & Lituchy, T. R. (1990). Impact of process and outcome feedback on the relation of goal setting to task performance. *Academy of Management Journal, 33*(1), 87-105.
- Estrada, C. A., Isen, A. M., & Young, M. J. (1994). Positive affect improves creative problem solving and influences reported source of practice satisfaction in physicians. *Motivation and Emotion, 18*(4), 285-299.
- Etzion, D., Eden, D., & Lapidot, Y. (1998). Relief from job stressors and burnout: Reserve service as a respite. *Journal of Applied Psychology, 83*(4), 577-585.
- Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance, 14*(1), 97-124.
- Fay, D., & Hüttges, A. (2016). Drawbacks of proactivity: Effects of daily proactivity on daily salivary cortisol and subjective well-being. *Journal of Occupational Health Psychology, Advance online publication*. doi:10.1037/ocp0000042
- Fay, D., & Sonnentag, S. (2012). Within-person fluctuations of proactive behavior: How affect and experienced competence regulate work behavior. *Human Performance, 25*(1), 72-93.
- Fisher, C. D. (2010). Happiness at work. *International Journal of Management Reviews, 12*(4), 384-412.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion, 19*(3), 313-332.

- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior*, 23, 133-187.
- 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 Occupational and Organizational Psychology*, 70(2), 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(4), 1084-1102.
- Fritz, C., & Sonnentag, S. (2005). Recovery, health, and job performance: Effects of weekend experiences. *Journal of Occupational Health Psychology*, 10(3), 187-199.
- Fritz, C., & Sonnentag, S. (2007). Antecedents of day-level proactive behavior: A look at job stressors and positive affect during the workday. *Journal of Management*, 35(1), 94-111.
- 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(1), 94-111.
- Fryer, D., Payne, R., & Jahoda, M. (1984). Proactive behaviour in unemployment: Findings and implications. *Leisure Studies*, 3(3), 273-295; 297-299. doi:10.1080/02614368400390231
- Fuller, B., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the proactive personality literature. *Journal of Vocational Behavior*, 75(3), 329-345.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspeli, A. K., . . . Güntert, S. T. (2015). The multidimensional work motivation scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology*, 24(2), 178-196.
- Geurts, S. A., & Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment. *Scandinavian Journal of Work, Environment & Health*, 482-492.

- Gist, M. E. (1987). Self-efficacy: Implications for organizational behavior and human resource management. *Academy of Management Review*, 12(3), 472-485.
- Gong, Y., Wang, M., Huang, J.-C., & Cheung, S. Y. (2014). Toward a goal orientation-based feedback-seeking typology implications for employee performance outcomes. *Journal of Management*, 1234-1260.
- Gorgievski, M. J., & Hobfoll, S. E. (2008). Work can burn us out or fire us up: Conservation of resources in burnout and engagement. In J. R. Halbesleben (Ed.), *Handbook of Stress and Burnout in Health Care* (pp. 7-22). New York: Nova Science Publishers.
- Grant-Vallone, E. J., & Donaldson, S. I. (2001). Consequences of work-family conflict on employee well-being over time. *Work & Stress*, 15(3), 214-226.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior*, 28, 3-34.
- Grant, A. M., Gino, F., & Hofmann, D. A. (2011). Reversing the extraverted leadership advantage: The role of employee proactivity. *Academy of Management Journal*, 54(3), 528-550.
- Grant, A. M., & Mayer, D. M. (2009). Good soldiers and good actors: Prosocial and impression management motives as interactive predictors of affiliative citizenship behaviors. *Journal of Applied Psychology*, 94(4), 900-912.
- Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: The rise of relational and proactive perspectives. *The Academy of Management Annals*, 3(1), 317-375.
- Grant, A. M., Parker, S. K., & Collins, C. (2009). Getting credit for proactive behavior: Supervisor reactions depend on what you value and how you feel. *Personnel Psychology*, 62(1), 31-55.
- Greenglass, E. R., & Fiksenbaum, L. (2009). Proactive coping, positive affect, and well-being: Testing for mediation using path analysis. *European Psychologist*, 14(1), 29-39.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10(1), 76-88.
- Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work-family balance and quality of life. *Journal of Vocational Behavior*, 63(3), 510-531.

- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, *31*(1), 72-92.
- Greguras, G. J., & Diefendorff, J. M. (2010). Why does proactive personality predict employee life satisfaction and work behaviors? A field investigation of the mediating role of the self-concordance model. *Personnel Psychology*, *63*(3), 539-560.
- 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*(2), 327-347.
- Gröpel, P., & Kuhl, J. (2009). Work-life balance and subjective well-being: The mediating role of need fulfilment. *British Journal of Psychology*, *100*(2), 365-375.
- Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, *5*(1), 111-126.
- Guillén, M. F. (2001). Is globalization civilizing, destructive or feeble? A critique of five key debates in the social science literature. *Annual Review of Sociology*, *27*(1), 235-260.
- Guzzo, R. A., & Shea, G. P. (1992). Group performance and intergroup relations in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 3, pp. 269-313). Palo Alto, CA: Consulting Psychologist Press.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279.
- Hagger, M. S., Chatzisarantis, N. L., Alberts, H., Anggono, C. O., Batailler, C., Birt, A. R., . . . Bruyneel, S. (2016). A multilab preregistered replication of the ego-depletion effect. *Perspectives on Psychological Science*, *11*(4), 546-573.
- Hagger, M. S., Wood, C., Stiff, C., & Chatzisarantis, N. L. (2010). Ego depletion and the strength model of self-control: A meta-analysis. *Psychological Bulletin*, *136*(4), 495-525.
- Hahn, V. C., Frese, M., Binnewies, C., & Schmitt, A. (2012). Happy and proactive? The role of hedonic and eudaimonic well-being in business owners' personal initiative. *Entrepreneurship Theory and Practice*, *36*(1), 97-114.

- Hammer, T., Saksvik, P., Nytrø, K., Torvatn, H., & Bayazit, M. (2004). Expanding the psychosocial work environment: Workplace norms and work-family conflict as correlates of stress and health. *Journal of Occupational Health Psychology, 9*(1), 83-97.
- Heyes, J. (2011). Flexicurity, employment protection and the jobs crisis. *Work, Employment and Society, 25*(4), 642-657.
- Hobfoll, S. E. (1989). Conservation of resources. A new attempt at conceptualizing stress. *The American Psychologist, 44*(3), 513-524.
- Hobfoll, S. E., & Shirom, A. (2001). Conservation of resources theory: Applications to stress and management in the workplace *Handbook of organizational behavior* (pp. 57-80). New York, NY, US: Marcel Dekker.
- Hobson, C. J., Delunas, L., & Kesic, D. (2001). Compelling evidence of the need for corporate work/life balance initiatives: Results from a national survey of stressful life-events. *Journal of Employment Counseling, 38*(1), 38-44.
- Hockey, R. (2000). Work environments and performance. In C. N. (Ed.), *Introduction to work and organizational psychology: A European perspective* (pp. 206-230). Blackwell, Malden Blackwell Publishing.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management, 24*(5), 623-641.
- Hughes, J., & Bozionelos, N. (2007). Work-life balance as source of job dissatisfaction and withdrawal attitudes: An exploratory study on the views of male workers. *Personnel Review, 36*(1), 145-154.
- Hülshager, U. R., & Schewe, A. F. (2011). On the costs and benefits of emotional labor: A meta-analysis of three decades of research. *Journal of Occupational Health Psychology, 16*(3), 361-389.
- Isen, A. M., & Reeve, J. (2005). The influence of positive affect on intrinsic and extrinsic motivation: Facilitating enjoyment of play, responsible work behavior, and self-control. *Motivation and Emotion, 29*(4), 295-323.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of Occupational and Organizational Psychology, 76*(3), 347-364.
- Janssen, O., Van de Vliert, E., & West, M. (2004). The bright and dark sides of individual and group innovation: A special issue introduction. *Journal of Organizational Behavior, 25*(2), 129-145.

- Jones, F., & Fletcher, B. C. (1996). Taking work home: A study of daily fluctuations in work stressors, effects on moods and impacts on marital partners. *Journal of Occupational & Organizational Psychology*, 69(1), 89-106.
- Judge, T. A., & Hurst, C. (2008). How the rich (and happy) get richer (and happier): Relationship of core self-evaluations to trajectories in attaining work success. *Journal of Applied Psychology*, 93(4), 849-863.
- Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science*, 306(5702), 1776-1780.
- Kammeyer-Mueller, J., Judge, T. A., & Scott, B. A. (2009). The role of core self-evaluations in the coping process. *Journal of Applied Psychology*, 94(1), 177-195.
- Kanfer, R., & Ackerman, P. L. (1989). Motivation and cognitive abilities: An integrative/aptitude-treatment interaction approach to skill acquisition. *Journal of Applied Psychology*, 74(4), 657-690.
- Keeton, C. P., Perry-Jenkins, M., & Sayer, A. G. (2008). Sense of control predicts depressive and anxious symptoms across the transition to parenthood. *Journal of Family Psychology*, 22(2), 212-221.
- Kish-Gephart, J. J., Detert, J. R., Treviño, L. K., & Edmondson, A. C. (2009). Silenced by fear: The nature, sources, and consequences of fear at work. *Research in Organizational Behavior*, 29, 163-193.
- Koestner, R., Ryan, R. M., Bernieri, F., & Holt, K. (1984). Setting limits on children's behavior: The differential effects of controlling vs. informational styles on intrinsic motivation and creativity. *Journal of Personality*, 52(3), 233-248.
- Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. *Academy of Management Journal*, 59(2), 414-435.
- Lam, C. F., Wan, W. H., & Roussin, C. J. (2016). Going the extra mile and feeling energized: An enrichment perspective of organizational citizenship behaviors. *Journal of Applied Psychology*, 101(3), 379-391.
- Larson, R., & Csikszentmihalyi, M. (1983). The experience sampling method. *New Directions for Methodology of Social & Behavioral Science*, 15, 41-56.
- LePine, J. A., & Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential

relationships with big five personality characteristics and cognitive ability. *Journal of Applied Psychology*, 86(2), 326-336.

Lin, S. H., & Johnson, R. E. (2015). A suggestion to improve a day keeps your depletion away: Examining promotive and prohibitive voice behaviors within a regulatory focus and ego depletion framework. *The Journal of applied psychology*, 100(5), 1381-1397.

Llorens, S., Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior*, 23(1), 825-841.

Madrid, H. P., Patterson, M. G., Birdi, K. S., Leiva, P. I., & Kausel, E. E. (2014). The role of weekly high-activated positive mood, context, and personality in innovative work behavior: A multilevel and interactional model. *Journal of Organizational Behavior*, 35(2), 234-256.

Major, D. A., Turner, J. E., & Fletcher, T. D. (2006). Linking proactive personality and the Big Five to motivation to learn and development activity. *Journal of Applied Psychology*, 91(4), 927-935.

Massimini, F., & Carli, M. (1988). The systematic assessment of flow in daily experience. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *Optimal experience: Psychological studies of flow in consciousness* (pp. 266-287). New York, NY, US: Cambridge University Press.

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*, 89(6), 991-1007.

Milyavskaya, M., & Koestner, R. (2011). Psychological needs, motivation, and well-being: A test of self-determination theory across multiple domains. *Personality and Individual Differences*, 50(3), 387-391.

Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research*, 28(2), 229-242.

Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extrarole efforts to initiate workplace change. *Academy of Management Journal*, 42(4), 403-419.

Mouratidis, A., Vansteenkiste, M., Lens, W., & Sideridis, G. (2008). The motivating role of positive feedback in sport and physical education: Evidence for a motivational model. *Journal of Sport and Exercise Psychology*, 30(2), 240-268.

- Muraven, M., Tice, D. M., & Baumeister, R. F. (1998). Self-control as limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology, 74*(3), 774-789.
- Muthén, L. K., & Muthén, B. O. (1998-2015). *Mplus User's Guide (Seventh Edition)*. Los Angeles, CA: Muthén & Muthén.
- Netemeyer, R. G., Boles, J. S., & McMurrin, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*(4), 400-410.
- Ng, T. W. H., Sorensen, K. L., & Eby, L. T. (2006). Locus of control at work: A meta-analysis. *Journal of Organizational Behavior, 27*(8), 1057-1087.
- Nix, G. A., Ryan, R. M., Manly, J. B., & Deci, E. L. (1999). Revitalization through self-regulation: The effects of autonomous and controlled motivation on happiness and vitality. *Journal of Experimental Social Psychology, 35*(3), 266-284.
- Noor, N. M. (2004). Work-family conflict, work-and family-role salience, and women's well-being. *The Journal of Social Psychology, 144*(4), 389-406.
- Ohly, S., & Fritz, C. (2007). Challenging the status quo: What motivates proactive behaviour? *Journal of Occupational and Organizational Psychology, 80*(4), 623-629.
- Ohly, S., & Schmitt, A. (2017). Work design and proactivity. In S. K. Parker & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations* (pp. 387-410). New York, NY: Routledge.
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research: An introduction and some practical recommendations. *Journal of Personnel Psychology, 9*(2), 79-93.
- Ohly, S., Sonnentag, S., & Pluntke, F. (2006). Routinization, work characteristics and their relationships with creative and proactive behaviors. *Journal of Organizational Behavior, 27*(3), 257-279.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology, 3*(6), 835-852.
- Parker, S. K. (2000). From passive to proactive motivation: The importance of flexible role orientations and role breadth self-efficacy. *Applied Psychology, 49*(3), 447-469.

- Parker, S. K., & Bindl, U. K. (2017). *Proactivity at work: Making things happen in organizations*. GB: Routledge.
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, *36*(4), 827-856.
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, *36*(3), 633-662.
- Parker, S. K., Johnson, A., Collins, C., & Nguyen, H. (2012). Making the most of structural support: Moderating influence of employees' clarity and negative affect. *Academy of Management Journal*, *56*(3), 867-892.
- Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). "That's not my job": Developing flexible employee work orientations. *Academy of Management Journal*, *40*(4), 899-929.
- Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology*, *91*(3), 636-652. doi:10.1037/0021-9010.91.3.636
- Parker, S. K., & Wu, C. H. (2014). Leading for proactivity: How leaders cultivate staff who make things happen. In D. Day (Ed.), *Oxford handbook of leadership and organizations* (pp. 380-403). Oxford, UK: Oxford University Press.
- Paulhus, D. L. (2002). Socially desirable responding: The evolution of a construct. In H. I. Braun, D. N. Jackson, & D. E. Wiley (Eds.), *The role of constructs in psychological and educational measurement* (pp. 49-69). Mahwah, NJ: Lawrence Erlbaum.
- Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based self-esteem: Construct definition, measurement, and validation. *Academy of Management Journal*, *32*(3), 622-648.
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual and organizational-level consequences of organizational citizenship behaviors. *Journal of Applied Psychology*, *94*(1), 122-141.
- 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*(5), 879-903.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate behavioral research*, *42*(1), 185-227.

- Querstret, D., & Cropley, M. (2012). Exploring the relationship between work-related rumination, sleep quality and work-related fatigue. *Journal of Occupational Health Psychology, 17*(3), 341-353.
- Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46*(4), 655-684.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *The Psychological Monographs, 80*(1), 1-28.
- Ryan, R. M., Bernstein, J. H., & Brown, K. W. (2010). Weekends, work, and well-being: Psychological need satisfactions and day of the week effects on mood, vitality, and physical symptoms. *Journal of Social and Clinical Psychology, 29*(1), 95-122.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *The American Psychologist, 55*(1), 68-78.
- Ryan, R. M., & Deci, E. L. (2008). From ego depletion to vitality: Theory and findings concerning the facilitation of energy available to the self. *Social and Personality Psychology Compass, 2*(2), 702-717.
- Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality, 65*(3), 529-565.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081.
- Ryon, H. S., & Gleason, M. E. (2014). The role of locus of control in daily life. *Personality & Social Psychology Bulletin, 40*(1), 121-131.
- 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*(1), 116-131.
- Sandler, I. N., & Lakey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. *American Journal of Community Psychology, 10*(1), 65-80.
- 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*(4), 701-716.

- Schaufeli, W. B., Salanova, M., González-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.
- Schmidt, K.-H., Neubach, B., & Heuer, H. (2007). Self-control demands, cognitive control deficits, and burnout. *Work & Stress*, 21(2), 142-154.
- Scott, B. A., & Judge, T. A. (2006). Insomnia, emotions, and job satisfaction: A multilevel study. *Journal of Management*, 32(5), 622-645.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580-607.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84(3), 416-427.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54(4), 845-874.
- Seo, M. G., Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience in work motivation. *Academy of Management Review*, 29(3), 423-439.
- Shalley, C. E., Gilson, L. L., & Blum, T. C. (2009). Interactive effects of growth need strength, work context, and job complexity on self-reported creative performance. *The Academy of Management Journal*, 52(3), 489-505.
- Sheldon, K. M., Ryan, R. M., & 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.
- Shepherd, D. A., & Cardon, M. S. (2009). Negative emotional reactions to project failure and the self-compassion to learn from the experience. *Journal of Management Studies*, 46(6), 923-949.
- Shimazu, A., De Jonge, J., Kubota, K., & Kawakami, N. (2014). Psychological detachment from work during off-job time: Predictive role of work and non-work factors in Japanese employees. *Industrial Health*, 52(2), 141-146.
- Shirom, A. (2011). Vigor as a positive affect at work: Conceptualizing vigor, its relations with related constructs, and its antecedents and consequences. *Review of General Psychology*, 15(1), 50-64.

- Siegel, P., Post, C., Brockner, J., Fishman, A., & Garden, C. (2005). The moderating influence of procedural fairness on the relationship between work-life conflict and organizational commitment. *Journal of Applied Psychology, 90*(1), 13-24.
- Singh, R., Ragins, B. R., & Tharenou, P. (2009). Who gets a mentor? A longitudinal assessment of the rising star hypothesis. *Journal of Vocational Behavior, 74*(1), 11-17.
- Sitzmann, T., & Yeo, G. B. (2013). A meta-analytic investigation of the within-person self-efficacy domain: Is self-efficacy a product of past performance or a driver of future performance? *Personnel Psychology, 66*(3), 531-568.
- Snijders, T., & Bosker, R. (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between nonwork and work. *Journal of Applied Psychology, 88*(3), 518-528.
- Sonnentag, S. (2012). Psychological detachment from work during leisure time the benefits of mentally disengaging from work. *Current Directions in Psychological Science, 21*(2), 114-118.
- Sonnentag, S., & Bayer, U.-V. (2005). Switching off mentally: Predictors and consequences of psychological detachment from work during off-job time. *Journal of Occupational Health Psychology, 10*(4), 393-414.
- Sonnentag, S., & Binnewies, C. (2013). Daily affect spillover from work to home: Detachment from work and sleep as moderators. *Journal of Vocational Behavior, 83*(2), 198-208.
- Sonnentag, S., Binnewies, C., & Mojza, E. J. (2010). Staying well and engaged when demands are high: The role of psychological detachment. *Journal of Applied Psychology, 95*(5), 965-976.
- Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire: development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology, 12*(3), 204-221.
- Sonnentag, S., & Fritz, C. (2015). Recovery from job stress: The stressor-detachment model as an integrative framework. *Journal of Organizational Behavior, 36*(S1), S72-S103.
- Sonnentag, S., & Krueger, U. (2006). Psychological detachment from work during off-job time: The role of job stressors, job involvement, and

recovery-related self-efficacy. *European Journal of Work and Organizational Psychology*, 15(2), 197-217.

Sonnentag, S., Mojza, E. J., Binnewies, C., & Scholl, A. (2008). Being engaged at work and detached at home: A week-level study on work engagement, psychological detachment, and affect. *Work & Stress*, 22(3), 257-276.

Sonnentag, S., & Zijlstra, F. R. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being, and fatigue. *Journal of Applied Psychology*, 91(2), 330-350.

Stobbeleir, K. E., Ashford, S. J., & Luque, M. S. (2010). Proactivity with image in mind: How employee and manager characteristics affect evaluations of proactive behaviours. *Journal of Occupational and Organizational Psychology*, 83(2), 347-369.

Strathman, A., Gleicher, F., Boninger, D. S., & Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology*, 66(4), 742-752.

Strauss, K., Griffin, M. A., & Rafferty, A. E. (2009). Proactivity directed toward the team and organization: The role of leadership, commitment and role-breadth self-efficacy. *British Journal of Management*, 20(3), 279-291.

Strauss, K., & Parker, S. K. (2014). Effective and sustained proactivity in the workplace: A self-determination theory perspective. In M. Gagne (Ed.), *The Oxford Handbook of Work Engagement, Motivation, and Self-Determination Theory* (pp. 50-71). New York, NY: Oxford University Press.

Strauss, K., Parker, S. K., & O'Shea, D. (2017). When does proactivity have a cost? Motivation at work moderates the effects of proactive work behavior on employee job strain. *Journal of Vocational Behavior*, 100, 15-26.

Tangirala, S., & Ramanujam, R. (2008). Exploring nonlinearity in employee voice: The effects of personal control and organizational identification. *Academy of Management Journal*, 51(6), 1189-1203.

Thomas, J. P., Whitman, D. S., & Viswesvaran, C. (2010). Employee proactivity in organizations: A comparative meta-analysis of emergent proactive constructs. *Journal of Occupational and Organizational Psychology*, 83(2), 275-300.

Thompson, J. A. (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology*, 90(5), 1011-1017.

- Tice, D. M., Baumeister, R. F., Shmueli, D., & Muraven, M. (2007). Restoring the self: Positive affect helps improve self-regulation following ego depletion. *Journal of Experimental Social Psychology*, *43*(3), 379-384.
- Tidwell, M., & Sias, P. (2005). Personality and information seeking: Understanding how traits influence information-seeking behaviors. *The Journal of Business Communication* *42*(1), 51-77.
- Tornau, K., & Frese, M. (2013). Construct clean-up in proactivity research: A meta-analysis on the nomological net of work-related proactivity concepts and their incremental validities. *Applied Psychology*, *62*(1), 44-96.
- Trougakos, J. P., Beal, D. J., Cheng, B. H., Hideg, I., & Zweig, D. (2015). Too drained to help: A resource depletion perspective on daily interpersonal citizenship behaviors. *The Journal of Applied Psychology*, *100*(1), 227-236.
- Unsworth, K., & Parker, S. K. (2002). Proactivity and innovation: Promoting a new workforce for the new workplace. *The New Workplace* (pp. 175-196): John Wiley & Sons, Ltd.
- Vahle-Hinz, T., Mauno, S., de Bloom, J., & Kinnunen, U. (2017). Rumination for innovation? Analysing the longitudinal effects of work-related rumination on creativity at work and off-job recovery. *Work & Stress*, 1-23. doi:10.1080/02678373.2017.1303761
- Vallerand, R. J., & Reid, G. (1984). On the causal effects of perceived competence on intrinsic motivation: A test of cognitive evaluation theory. *Journal of Sport Psychology*, *6*(1), 94-102.
- Van Dick, R., Grojean, M. W., Christ, O., & Wieseke, J. (2006). Identity and the extra mile: Relationships between organizational identification and organizational citizenship behaviour. *British Journal of Management*, *17*(4), 283-301.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, *41*(1), 108-119.
- van Veldhoven, M., & Dorenbosch, L. (2008). Age, proactivity and career development. *Career Development International*, *13*(2), 112-131.
- Vohs, K. D., Baumeister, R. F., Schmeichel, B. J., Twenge, J. M., Nelson, N. M., & Tice, D. M. (2008). Making choices impairs subsequent self-control: A limited-resource account of decision making, self-regulation, and active initiative. *Journal of Personality and Social Psychology*, *94*(5), 883-898.

- Vos, A., Clippeleer, I., & Dewilde, T. (2009). Proactive career behaviours and career success during the early career. *Journal of Occupational and Organizational Psychology*, 82(4), 761-777.
- Wagner, D. T., Barnes, C. M., & Scott, B. A. (2014). Driving it home: How workplace emotional labor harms employee home life. *Personnel Psychology*, 67(2), 487-516.
- Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in the socialization process. *Journal of Applied Psychology*, 85(3), 373-385.
- Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology*, 63(3), 193-210. doi:10.1111/j.2044-8325.1990.tb00521.x
- Westman, M., & Eden, D. (1997). Effects of a respite from work on burnout: vacation relief and fade-out. *Journal of Applied Psychology*, 82(4), 516.
- Wheeler, S. C., Briñol, P., & Hermann, A. D. (2007). Resistance to persuasion as self-regulation: Ego-depletion and its effects on attitude change processes. *Journal of Experimental Social Psychology*, 43(1), 150-156.
- Wu, C. H., Deng, H., & Li, Y. (2017). Enhancing a Sense of Competence at Work by Engaging in Proactive Behavior: The Role of Proactive Personality. *Journal of Happiness Studies*, 1-16. doi:10.1007/s10902-016-9827-9
- Wu, C. H., & Li, W. D. (2017). Individual differences in proactivity: A developmental perspective. In S. K. Parker & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations* (pp. 226-257). New York: NY: Routledge.
- Wu, C. H., & Parker, S. K. (2014). The Role of leader support in facilitating proactive work behavior: A perspective from attachment theory. *Journal of Management*, 40(6), 1511-1534.
- Wu, C. H., Parker, S. K., & De Jong, J. P. (2014). Need for cognition as an antecedent of individual innovation behavior. *Journal of Management*, 40(6), 1511-1534.
- 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(2), 121-141.

- Xanthopoulou, D., Bakker, A. B., & Ilies, R. (2012). Everyday working life: Explaining within-person fluctuations in employee well-being. *Human Relations, 65*(9), 1051-1069.
- Yeo, G. B., & Neal, A. (2006). An examination of the dynamic relationship between self-efficacy and performance across levels of analysis and levels of specificity. *Journal of Applied Psychology, 91*(5), 1088-1101.
- Zacher, H. (2015). Successful aging at work. *Work, Aging and Retirement, 1*(1), 4-25.
- Zacher, H., & Kooij, D. T. (2017). Aging and Proactivity. In S. K. Parker & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations* (pp. 258-294). New York, NY: Routledge.
- Zickar, M. J., & Slaughter, J. E. (1999). Examining creative performance over time using hierarchical linear modeling: An illustration using film directors. *Human Performance, 12*(3-4), 211-230.