THE EFFECT OF PERSONAL INITIATIVE ON RELAXATION:

THE RESOURCE-GAINING MECHANISM OF DAILY PROACTIVE BEHAVIOUR

Daryna Yashan

A thesis submitted in fulfilment of the requirements for
the degree of Master of Science in Organizational Psychology
the University of Auckland, 2022.

Abstract

Proactive behaviour overall and personal initiative, in particular, have become the most desired characteristics of modern employees. Despite the amount of research on proactive behaviour, the views on its well-being outcomes vary: several scholars discuss its benefits, while others insist on its adverse consequences. This study aims to combine the two conflicting streams of research and empirically test the dual pathway model of proactive behaviour. By utilising the daily diary design, we analysed the effect of personal initiative on emotional exhaustion and subsequent relaxation at the end of the working day. This study examined the resource-gaining and resource-depleting mechanisms of the personal initiative via both a direct effect on emotional exhaustion and through the mediating function of making progress on work goals. Proactive personality was hypothesised to act as a moderator to enhance the resource-gaining path and weaken the resource-depleting one. Using the daily diary data of 156 New Zealand employees, this study found evidence to support the resource-gaining path but not the resource-depleting one. The daily personal initiative was found to significantly negatively affect the level of end-of-day emotional exhaustion either directly or via the mediator. Nearly half of this effect is attributed to the mediating role of making progress on one's work goals. Moreover, the negative effect is even more prominent for people scoring high in proactive personality. This study also contributes to the existing research on daily recovery by providing evidence on the negative relationship between personal initiative in the morning, levels of emotional exhaustion at the end of a working day, and employees' evening relaxation.

Keywords: personal initiative, proactive behaviour, proactive personality, work goals progress, emotional exhaustion, relaxation, resource-gaining, resource-depleting, well-being

Table of Contents

Abstract ii

Table of Contents iii

List of Tables v

List of Figures v

CHAPTER I: Introduction 1

Theoretical Background and Hypotheses Development 4

Dual Pathways between Proactive Behaviour and Emotional Exhaustion 4

Work Goals Progress as a Mediator 8

The Moderating Role of Proactive Personality 9

End-of-Day Emotional Exhaustion and Evening Recovery at Home 12

CHAPTER II: Method 13

Participants and Procedure 13

Measures 14

Proactive personality. 14

Personal initiative. 14

Work goals progress. 14

Emotional exhaustion. 14

Relaxation. 15

Control variables. 15

Data Analysis 15

Results 15

CHAPTER III: Discussion 18

Theoretical Implications 20

Practical Implications 22

Limitations 23

Conclusion 25

References 27

Appendices 45

List of Tables

Table 1 *Descriptive statistics and inter-correlations among studied variables*……..40

Table 2 *Results of the multilevel regression analysis*.....41

List of Figures

Figure 1 *Hypothesised model*.....42

Figure 2 *Regression coefficients*.....43

Figure 3 *The moderating effect of proactive personality on the relationship between personal initiative and emotional exhaustion*.....44

CHAPTER I

Introduction

Proactive behaviour, defined as "taking initiative in improving current circumstances or creating new ones, or challenging the status quo rather than passively adapting to present conditions" (Crant, 2000, p.436), has become one of the most desirable features of a modern employee (McCormick et al., 2019). This is because of its proven association with a variety of organisational outcomes such as job performance (Thomas et al., 2010; Tornau & Frese, 2013) and innovation (Parker et al., 2019). Repeatedly, research has shown that proactive employees are self-motivated and achieve better career success (Strauss et al., 2012; Wu et al., 2018). Specifically, proactive behaviour in the form of employees showing personal initiative is valued by growth-oriented organisations, given the self-starting, future-oriented nature of this type of proactivity aimed at achieving goals (Frese & Fay, 2001). Such voluntary extra-role behaviour to overcome potential hurdles (Crant, 2000; Frese & Fay, 2001) is considered a valuable asset in creating and delivering a company's strategic mission.

Despite the amount of research on proactive behaviour, or personal initiative, in particular, a few issues warrant further attention. Specifically, the views on the relationship between engaging in proactive behaviour and emotional exhaustion vary across studies. Emotional exhaustion is defined as "feelings of being emotionally overextended and depleted of one's emotional resources" (Maslach, 1993, pp. 20–21), which is an important well-being indicator and has been shown to be negatively related to job performance (Janssen et al., 2010). On the one hand, because people with high initiative proactively seek to improve their environment (Crant, 2000), they are argued to be better at utilising their resources to maximise the achievement of goals. In line with this view, several scholars concluded that personal initiative should decrease exhaustion (Taris & Wielenga-Meijer, 2010; Wang & Li, 2015). As these people act proactively and persistent towards tackling problems when or

before they occur and bring about positive changes to the work environment, they are less likely to run into situations where resources are depleted compared to those who do not behave proactively. On the other hand, showing initiative also requires additional effort expenditure in the face of challenges (Frese & Fay, 2001). As such, several scholars have argued that proactive behaviour generally has energy- and resource-consuming function and therefore reduces well-being (Bolino et al., 2010; Strauss et al., 2017; Zacher et al., 2019). For example, Bolino et al. (2010) suggested that proactive behaviour itself can serve as a potential source of job strain, leading to energy depletion, conflicts, and frustration. The latter perspective posits a contradictory view, arguing that proactive behaviour is positively related to emotional exhaustion by depleting one's resources.

Empirical evidence has been similarly divergent. From the resource-gaining point of view, some scholars argue for positive well-being outcomes of proactive behaviour, such as higher job satisfaction, affective commitment, positive affect (Tornau & Frese, 2013), and improved psychological well-being (Wang & Li, 2015). Personal initiative was also found to increase people's resources in terms of the motivation to learn (Taris & Wielenga-Meijer, 2010). In contrast, other scholars view proactivity as a resource-draining activity that causes irritability, work-related rumination and subsequently leads to employee withdrawal (Pingel et al., 2019). Similarly, Zacher et al. (2019) found that personal initiative was associated with decreased emotional engagement and increased exhaustion. Some research also found that proactive work behaviour had both positive and negative influences on individual well-being, such that it leads to higher vitality but also higher anxiety and more difficulties with bedtime detachment (Cangiano et al., 2019).

To integrate these conflicting positions, we aim to investigate further the multifaceted effects of the daily behaviour of personal initiative on employees' emotional exhaustion at the end of the workday. We draw upon Cangiano and Parker's (2015) dual-

pathway theoretical framework, which suggests that proactive behaviour influences mental health and well-being in two main pathways—resource-gaining and resource-depleting. Specifically, the resource-gaining path implies that proactive individuals are self-motivated to satisfy their needs and hence enjoy better well-being. In contrast, the resource-depleting path argues that proactive behaviour, as a type of extra-role activity, requires an additional effort that leads to resource depletion and increases emotional exhaustion. Consistent with Cangiano and Parker's (2015) dual-pathway theoretical model, we examine the dynamics of the resource-gaining and resource-depleting mechanisms in the current study and examine the dynamic relationships using a daily diary design. In particular, we suggest that one's engagement in proactive behaviour in the morning begets a resource-gaining process, which has the potential to reduce end-of-day exhaustion through increasing one's daily work goal progress. In addition, performing proactive behaviour itself also involves resource depletion and should have a positive direct effect on end-of-day exhaustion. By separating the direct and indirect influence mechanisms of proactive behaviour on emotional exhaustion, we contribute to the literature by delineating the seemingly contradictory theoretical connections between the two.

We then link proactive behaviour and emotional exhaustion to more distal well-being outcomes in the evening, namely, home recovery. The lack of proper recovery has been related to harmful well-being outcomes, such as fatigue and sleep problems, while its presence has been linked to higher life satisfaction, better job performance, and engagement (Binnewies et al., 2009; Zijlstra & Sonnentag, 2006). Empirical research also confirms the negative effect of insufficient recovery on people's physical and psychological health (Grebner et al., 2005; Gump & Matthews, 2000). Proactive individuals are often passionate about their job and find it difficult to switch off from work in the evening (Cangiano et al., 2021), which commonly results in higher levels of emotional exhaustion and a higher need

for recovery (Sonnentag et al., 2010). We will focus our attention on one type of people's recovery – their relaxation after work – and expect that the increase in exhaustion caused by the personal initiative will impede people's relaxation after work.

Our research model is presented in Figure 1. We discuss our rationale in more detail further.

Theoretical Background and Hypotheses Development

Dual Pathways between Proactive Behaviour and Emotional Exhaustion

The Cangiano and Parker (2015) theoretical model proposes a dual-pathway relationship between people's proactive behaviour and well-being. The resource-gaining path of proactive behaviour, which they refer to as the "motivation pathway", is suggested to improve people's mental and psychological state. This path is characterised by the positive spiral of well-being benefits stimulating further proactive behaviour. In contrast, the resource-depleting path of proactive behaviour implies that individuals' engagement in proactive behaviour consumes their energy and, as a result, they experience more stress leading to such adverse outcomes as increased emotional strain and role overload.

According to the dual pathway model, personal initiative, as a type of proactive behaviour, has a resource-depletion role and increases exhaustion, given that this behaviour requires additional efforts and thus requires the use of psychological resources (Hahn et al., 2012). Highly initiative employees usually have increased persistence to overcome obstacles, which places a higher need for effective coping, ultimately resulting in more stress (Bolino & Turnley, 2005). Empirical evidence also exists to support that personal initiative, or more broadly proactive work behaviour, negatively predicts well-being outcomes. For example, Gawke et al. (2018) found a positive relationship between employee's proactive intrapreneurial behaviour and their exhaustion. Fay and Hüttges (2017) found that the need to invest additional effort to show personal initiative is connected to increased daily cortisol

output, leading to increased fatigue. More direct evidence comes from Zacher et al. (2019), which found that personal initiative increased exhaustion 12 months later through positive affect. In line with the prior evidence, we expect that on a more dynamic scale, daily personal initiative will deplete people's daily psychological resources, resulting in their higher levels of emotional exhaustion at the end of the day. Therefore, we propose:

Hypothesis 1: Daily personal initiative positively predicts emotional exhaustion at the end of a workday.

In addition to the direct effect of personal initiative on exhaustion due to resource depletion, it also has the potential for resource gain through facilitating work goals progress, which would then potentially reduce exhaustion. Personal initiative is a self-starting and autonomous behaviour, characterised by agency and goals-pursuit, motivated by individuals' striving to meet their goals or psychological needs (Deci & Ryan, 2000). Deci and Ryan (2000) suggest that people have a cybernetic nature, that they tend to have the motivation to progress on their work goals (Diener & Fujita, 1995) and constantly compare the actual goal progress with the expected "standard" to get a general sense of goal progress (Carver & Scheier, 1990). Similarly, Cangiano and Parker (2015) view proactivity as a purposeful behaviour aimed at achieving goals that lead to beneficial well-being outcomes.

We expect daily personal initiative to contribute positively to one's daily work goals progress for the following reasons. First, we argue that a few key features of this behaviour make it crucial for pursuing work goals, especially when goals are challenging. Personal initiative is highly driven by striving to satisfy one's psychological needs (Strauss & Parker, 2014), of which the successful pursuit of goals is an important one. The self-starting essence of personal initiative is key to work goals progress, as it drives individuals to act on a problem proactively and persist in overcoming barriers on their way (Frese & Fay, 2001). Further, the personal initiative also implies provisioning for future challenges and aiming to

overcome them (Searle, 2008). Consequently, the personal initiative allows individuals to plan ahead and execute the needed changes to better achieve their work goals.

In addition, indirect evidence supporting the positive relationship between personal initiative and work goals progress can be implied from research on proactive behaviour and job performance, as daily work goals progress, to some extent, reflects individuals' self-assessed job performance. Plenty of research has shown that proactive behaviour is associated with higher performance although with a longer time scale (e.g., Thomas et al., 2010). Researchers argue that taking personal initiative implies actively seeking solutions and developing a future-oriented perspective about work (Frese & Fay, 2001), thus contributing to better performance. Meta-analytical data also suggests positive relationships between personal initiative and multiple performance constructs such as innovation (r= .24), objective performance (r= .19), and other-rated performance (r= .31; Tornau & Frese, 2013). This evidence leads us to believe that personal initiative would aid individuals to progress better on their work goals.

In sum, given the goals-pursuing vector of personal initiative, we expect one's daily engagement in the personal initiative behaviour to positively predict progress on work goals at the end of the workday.

Hypothesis 2: Daily personal initiative positively predicts perceived work goals progress at the end of a workday.

Good progress in pursuing work goals, in turn, contributes to people's positive outlook on their day and thus has a potential to decrease the end-of-day exhaustion. This corresponds to the resource-gaining motivational pathway in Cangiano and Parker's (2015) model, which explains proactive behaviour through the lens of the psychological needs' satisfaction that guides individuals' goals-setting and pursuing processes. They argue that goals-pursuit leads to a spiral of positive emotions, energizing individuals and improving

their well-being. Such goals are important to the employees' self and are congruent with their values and beliefs. Therefore, achieving goals should serve as a source of resources (Ryan & Deci, 2008).

Empirically, research has also shown that goals striving, in a broad sense, leads to better subjective well-being (Klug & Maier, 2015). Pursuing goals congruent with one's psychological needs impacts one's well-being even more positively (Sheldon & Kasser, 1998; Fleeson & Cantor, 1994; Wiese & Freund, 2005), given that they are intrinsically rewarding and serve basic needs (Deci & Ryan, 2000). In particular, research has even shown that goal progress contributes to subjective well-being to a greater extent than achieving goals, indicating that the process of moving toward goals provides a person's life with structure and meaning (Klug & Maier, 2015; Brunstein et al., 1998). In other words, the perception that one has made progress is even more satisfying than the result of goal completion.

Specific to the work domain, one's work goals' accomplishment has been linked to positive well-being such as job satisfaction and affective commitment (Maier & Brunstein, 2001). Research has also shown that one's positive regard during the evaluation of progress leads to a better emotional state (Sonnentag & Grant, 2012). Just as a good daily assessment of goals progress reflects resource gain, the perception of underachieving, running out of time, and not accomplishing work goals can be resource-draining, which adds mental pressure and increases emotional exhaustion (Ilies et al., 2010). Relatedly, the pressure of falling behind leads to increased exhaustion (Bennett et al., 2016). Based on these arguments above, we expect that making progress on work goals would decrease the extent to which one feels exhaustion at the end of each day.

> *Hypothesis 3:* Perceived daily work goals progress negatively predicts emotional exhaustion at the end of a workday.

Work Goals Progress as a Mediator

Subsuming the arguments above, we suggest that individuals' daily personal initiative should negatively and indirectly influence end-of-day exhaustion through increasing work goals progress. Given that personal initiative aims to satisfy one's needs (Strauss & Parker, 2014), progressing on the goals aligned with one's motives would positively affect their well-being and make them feel better at the end of those days. In addition, individuals applying personal initiative will gain resources through making progress on their daily work goals, which also reduces emotional exhaustion from a resource perspective (Bakker & Demerouti, 2007).

It is worth noting that past research has suggested that organisational citizenship behaviour (OCB) leads to more emotional exhaustion by reducing work goals progress (i.e., Koopman et al., 2016). This research highlighted that engaging in OCB deviates one from performing one's core tasks, thus making it more difficult for one to make progress on work goals. As a result, people who perform a lot of OCBs tend to fail to achieve daily goals, which leads to more emotional exhaustion. Although this may seem contradictory to our arguments as OCB and proactive behaviour appear to share many common features, we argue that proactive behaviour in the form of personal initiative substantially differs from OCB when it comes to their effects on work goals progress, and that it should be positively instead of negatively related to work goals progress. Different from OCB, which usually takes one's attention away from one's task at hand, personal initiative is goal-oriented and task-focused, which should contribute directly and positively to one's task completion and goal achievement. As we argued above, personal initiative not only contributes but is sometimes even necessary to make progress on one's work goals.

In sum, we argue that daily personal initiative will lead to less emotional exhaustion at the end of the day via the mediating mechanism of daily work goals progress. Therefore, we propose the following mediating hypothesis:

Hypothesis 4: End-of-day perceived work goals progress mediates the relationships between daily personal initiative and emotional exhaustion.

The Moderating Role of Proactive Personality

The fact that personal initiative has both resource-gaining and resource-depleting functions suggests boundary conditions. We argue that proactive personality serves as one important boundary condition determining which path is more prominent. Proactive personality refers to the personal disposition to "identify opportunities and act on them, show initiative, and persevere until they bring about the meaningful change" (Crant & Bateman, 2000, p. 65). Individuals with a strong proactive personality are naturally inclined to engage in proactive, task-driven behaviours and show initiative to improve their current situation (Crant, 2000; Li et al., 2017). Empirical findings indicate a positive relationship between proactive personality and a variety of outcomes, including performance (Thomas et al., 2010; Thompson, 2005), work engagement (Christian et al., 2011), and career success (Fuller & Marler, 2009; Seibert et al., 1999).

Specifically, we expect that people with a strong proactive personality tend to gain resources more than depleting resources from engaging in proactive behaviour and vice versa. Although the cybernetic view suggests that people are generally proactive by nature, proactive personality theory argues that people still differ in the extent to which they are willing to take action to initiate environmental change (Bateman & Crant, 1993). Further, proactive personality determines the extent to which being proactive is consistent with one's psychological needs and, in turn, influences the individual's choice to engage in proactive behaviour (Ryan et al., 2019). Naturally proactive individuals are inclined to look for ways to

change the work environment to better serve their psychological needs, and taking personal initiative is a good way to satisfy this need (Crant, 2000; Crant & Bateman, 2000). We believe that proactive individuals are more likely to set proactive goals and take personal initiative (Frese & Faye, 2001) than those scoring lower on proactivity. Crant et al. (2017) further suggested that proactive individuals perceive more psychological empowerment, resulting in higher confidence to complete work tasks and pursue their work goals. Pursuing goals driven by one's psychological needs improves subjective well-being (Sheldon & Kasser, 1998; Greguras & Diefendorff, 2010; Klug & Maier, 2015). Therefore, we expect that individuals high in proactivity would perceive showing initiative as the means to satisfy their psychological needs and pursue their goals, thus more likely to engage in such behaviours, resulting in their enhanced vitality and lower exhaustion.

In contrast, people with lower natural proactivity tend to be more risk-averse in showing their initiative due to perceiving potential frustration of their needs (Ryan et al., 2019). To these people, pursuing a proactive work goal means that more psychological resources are needed, thus performing proactive behaviour itself is more likely to lead to their depletion (Hahn et al., 2012). Due to the probability of failure, showing initiative would be inconsistent with their psychological needs. Such people perceive the cognitive effort required for personal initiative as resource-draining and risky, causing fatigue and hurting performance (Muraven & Baumeister, 2000). We expect that the level of exhaustion from proactivity would differ between naturally proactive people and those with lower scores. The less-proactive people, already having little psychological resources for proactive behaviour, are more likely to extend themselves further and experience greater resource depletion. Therefore, we expect people scoring lower on proactive personality to experience more emotional exhaustion at the end of the workday.

The empirical evidence of the relationship between proactive personality and emotional exhaustion, similar to the one with proactive behaviour, is not clear-cut. On the one hand, proactive individuals' sensitivity to a psychological strain result in lower performance indicators (Harvey et al., 2006). On the other hand, scholars argue for a positive buffering effect of proactive personality on people's job strain and emotional exhaustion (Jawahar et al., 2012; Alarcon et al., 2009; Parker & Sprigg, 1999). We hypothesise that proactive personality regulates the effect of either resource-gaining or resource-depleting paths of personal initiative. We rely on the findings of Schmitt et al. (2015), who concluded that proactive behaviour altered people's level of emotional exhaustion after bearing an increased level of responsibility at work. They argue that individuals engaging in personal initiative are more willing to take more responsibility compared to people exhibiting less initiative, who are more psychologically drained by it. This evidence suggests that naturally proactive people benefit from proactive behaviour, since it gains their resources, while the less-proactive people consider it resource-draining and inconsistent with their needs. Thus, we hypothesise that proactive personality moderates the effect of the personal initiative on emotional exhaustion through the prism of the individual's perception of making goals progress. Specifically, we expect that showing initiative is natural for people high in proactive personality, would enhance their progressing on work goals and lower their exhaustion. In contrast, people with lower proactivity scores would perceive personal initiative as a resource-draining activity, which would result in their increased exhaustion.

Hypothesis 5: Proactive personality moderates (strengthens) the relationship between personal initiative and work goals progress.

Hypothesis 6: Proactive personality moderates (weakens) the relationship between personal initiative and emotional exhaustion.

End-of-Day Emotional Exhaustion and Evening Recovery at Home

Lastly, we argue that exhaustion at the end of the work day would lead to difficulties in relaxing in the evening. The negative relationship between exhaustion and the need for recovery has been discussed in the literature (Demerouti et al., 2009). Previous research showed that recovery during vacations (Westman & Eden, 1997) and weekends (Fritz & Sonnentag, 2005) reduces emotional exhaustion. Therefore, it is logical to hypothesise that the increased exhaustion would require more recovery and vice versa (Sonnentag et al., 2010).

Relaxation is central to the process of recovery and generally implies experiencing positive emotions through pleasant activities and low cognitive engagement (Sonnentag & Fritz, 2007). The meta-analytical data suggests that emotional exhaustion, resulted from the increased job demands, negatively affects employees' relaxation (Bennet et al., 2018). Contrary to the common belief, relaxation activities also require time and energy, such as going for a walk, light exercise, or mindfulness practice (Xanthopoulou et al., 2018). Therefore, highly exhausted individuals, whose resources are depleted, would experience difficulties with relaxation. Hence, we expect that the increase in exhaustion would negatively impact people's relaxation.

Hypothesis 7: End-of-the-day exhaustion negatively predicts relaxation.

CHAPTER II

Method

Participants and Procedure

Participants in New Zealand were recruited to participate in the current study. Participants needed to be 18 years or older, be employed by their current work organisation for at least 6 months, work for a minimum of 30 hours per week, and have a regular Monday-Friday work schedule. The Mahalanobis distance multivariate outlier detection method was used to minimise the error (Etherington, 2021). The final sample consisted of 156 participants. Their mean age was 38 years (*SD* = 10.35), their current employers employed them for 5.21 years on average (*SD* = 6.10), and about 87% of the participants were females.

The study consisted of 2 stages of data collection. During the first stage, the participants were required to complete a general questionnaire, collecting their demographical and personality data. Then they completed daily surveys three times a day for five consecutive work days (Monday-Friday): personal initiative was measured halfway through the working day (in the morning survey), then the participants reflected on their work goals progress and reported their current perception of emotional exhaustion at the end of the working day (in the afternoon survey), and their relaxation before going to bed (in the evening survey). All surveys were delivered in an online format through Qualtrics. To minimise the impact of the COVID-19 limitations and ensure the participants' working environments were as close to natural as possible, they were asked to participate during the week while working at their normal employer's premises. Every participant was rewarded with a $10 fuel or groceries voucher for completing the general or each daily survey, totalling up to $60 for participating in all surveys.

Measures

Proactive personality. We assessed the participants' tendency to be proactive using the shortened version of Bateman & Crant's (1993) scale (Seibert et al., 1999). The responses were recorded using the 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The following six statements were included in the general survey: "If I see something I don't like, I fix it", "No matter what the odds, if I believe in something I will make it happen", "I love being a champion for my ideas, even against others' opposition", "I excel at identifying opportunities", "I am always looking for better ways to do things", "If I believe in an idea, no obstacle will prevent me from making it happen". The scale reliability is .72.

Personal initiative. Participants reported their daily engagement in initiative activities with the following statements: "I looked for better ways to do things", "I actively attacked problems", and "I took the initiative to start new projects/tasks" (Frese et al., 1997). The 5-point Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). Cronbach alpha for this scale averaged .84 for five days.

Work goals progress. Daily work goals progress was measured by asking participants the extent to which they perceive making progress at work, using the adapted version of Wanberg et al.'s (2010) measure based on the 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale included the following statements: "I made a great deal of progress toward achieving my work goals", "I hardly made any progress in achieving my work goals", and "I had a productive day today in relation to my work goals". The average scale reliability for five days equals .84.

Emotional exhaustion. Emotional exhaustion was measured with the following three items, adapted from the emotional exhaustion subscale of the Maslach Burnout Inventory: "I felt used up", "I felt emotionally drained", and "I felt burned out" (Maslach & Jackson,

1993). The 5-point Likert scale ranged from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha for this scale averaged .86 for five days.

Relaxation. Participants' level of relaxation in the evening was measured using the adapted version of the Recovery Experience Questionnaire (Sonnentag & Fritz, 2007). The following four statements were included and assessed using the 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree): "I kicked back and relaxed", "I did relaxing things", "I used the time to relax", and "I took time for leisure". The average internal reliability coefficient for five days equals .91.

Control variables. Participants' gender and age were used as control variables.

Data Analysis

Because data in the current study were nested (i.e., repeated daily measurements nested within individual-level characteristics), we conducted multilevel regression analyses to test our hypotheses using the "multilevel" R package. The within-individual variables, including daily measurements of personal initiative, work goals progress, emotional exhaustion, and relaxation were modelled at level 1. The between-individual variables (i.e., age, gender, and proactive personality) were modelled at level 2. We grand mean centred the predictor (personal initiative) and the moderator (proactive personality) when testing the moderation effect (Scott & Barnes, 2011).

Results

Descriptive statistics, including means, standard deviations, and inter-correlations among the studied variables, are presented in Table 1. Contrary to our expectations, results showed that personal initiative was negatively correlated with emotional exhaustion ($r = -.14$, $p < .01$). However, personal initiative positively correlated with work goals progress ($r = .33$, $p < .01$), which, in turn, negatively correlated with emotional exhaustion ($r = -.33$, $p < .01$), providing preliminary support for our resource-gaining hypotheses. As

expected, emotional exhaustion negatively correlated with relaxation ($r = –.35$, $p < .01$). Also, proactive personality positively correlated with personal initiative ($r = .25$, $p < .01$) and work goals progress ($r = .15$, $p < .01$), but negatively correlated with emotional exhaustion ($r = –.10$, $p < .05$). In addition, age positively correlated with work goals progress ($r = .09$, $p < .05$) and negatively correlated with emotional exhaustion ($r = –.10$, $p < .05$),

The results of the multilevel regression analysis are presented in Table 2 and Figure 2. Results failed to support Hypothesis 1, as personal initiative negatively predicted emotional exhaustion ($\gamma = –.18$, $p < .001$). Personal initiative positively predicted work goals progress ($\gamma = .29$, $p < .001$), supporting Hypothesis 2. In addition, in line with Hypothesis 3, work goals progress negatively predicted emotional exhaustion ($\gamma = –.31$, $p < .001$).

To test Hypothesis 4, we used a Monte Carlo method based on 5,000 simulations to estimate the mediation effect. Hypothesis 4 was supported: result indicated that work goals progress mediated the effect of morning personal initiative on end-of-day emotional exhaustion: indirect effect = –.09, 95% *CI* = [-.13, -.05], $p < .001$. Moreover, 48% of the total effect between personal initiative and emotional exhaustion was mediated through work goals progress.

Hypothesis 5 was not supported, as the moderation effect of proactive personality on the relationship between personal initiative and work goals progress was not significant ($\gamma = .07$, $p > .05$). In comparison, Hypothesis 6 was supported, as the moderation effect of proactive personality on the relationship between personal initiative and emotional exhaustion was significant ($\gamma = –.14$ $p = .01$). This finding suggests that people high in proactive personality experience less emotional exhaustion after showing personal initiative than those who lack proactive personality. The significant moderation effect was further plotted in Figure 3. Simple slope analysis results showed that when proactive personality is high, personal initiative significantly and negatively predicted emotional exhaustion

($r = -.32$, $p < .001$); when proactive personality is low, the effect became nonsignificant ($r = -.03$, $p > .05$).

Lastly, the effect of emotional exhaustion on home relaxation was significant and negative ($\gamma = -.31$, $p < .001$), supporting Hypothesis 7.

CHAPTER III

Discussion

In this study, we used Cangiano and Parker's (2015) theoretical framework to examine the daily dual pathway effects of the personal initiative at work. Specifically, Cangiano and Parker's (2015) model suggests that proactive behaviour such as personal initiative influences employees' well-being, in our case, afternoon emotional exhaustion and end-of-workday relaxation via two pathways, resource-gaining and resource-depleting. We propose that personal initiative activates a resource-gaining path through positively influencing work goals progress, which reduces end-of-day exhaustion through boosting employees' resources; on the other hand, personal initiative was also proposed to activate a resource-depleting path, where peoples' engagement in personal initiative directly predicts more end-of-day emotional exhaustion. We also proposed the moderating role of proactive personality in enhancing the effects of the resource-gaining path and weakening the effect of the resource-depleting path.

Overall, our results supported the resource-gaining path but not the resource-depleting path using a daily diary design. Specifically, personal initiative did not increase the level of emotional exhaustion both directly and indirectly, which differs from findings from previous research (Belschak et al., 2010; Bolino et al., 2010; Strauss et al., 2017; Zacher et al., 2019). We explain such a difference by the fact that our study explored transient effects of personal initiative. Given that we deployed a daily study design, it is likely that our results did not capture the long-term cumulative effect of personal initiative on emotional exhaustion, unlike Zacher et al. (2019). Besides, several external and motivational factors may influence this relationship (Belschak et al., 2010; Bolino et al., 2010; Strauss et al., 2017) and activate the resource-depleting path, which we did not investigate in our study. In comparison, the resource-gaining path was supported by the findings that the direct effect of morning personal

initiative on end-of-day emotional exhaustion and the indirect effect through works goals progress are both negative. The end-of-day emotional exhaustion has a direct negative effect on relaxation in the evening. Our findings, therefore, support the daily resource-gaining benefits of personal initiative: engaging in initiative behaviour in the morning reduces the level of exhaustion at the end of the working day by helping one make more progress on one's work goals, which, in turn, negatively predicted one's ability to relax in the evening. In addition, personal initiative also reduced emotional exhaustion through mechanisms other than progressing on one's work goals. These findings, therefore, indicate that employees' engaging in proactive behaviour has immediate benefits on a daily time scale.

The moderating role of proactive personality was significant only for the resource-gaining path, enhancing the direct negative relationship between personal initiative and emotional exhaustion: the higher the proactivity scores, the more strongly that personal initiative lowers emotional exhaustion. Therefore, our study showed that personal initiative behaviour was more beneficial in terms of reducing exhaustion for people who are proactive by nature. In comparison, proactive personality did not significantly moderate the effect of daily personal initiative on daily goals progress, indicating that personal initiative helps people make better progress on work goals irrespective of one's proactive personality. In other words, proactive behaviour has universal benefits – showing personal initiative in the morning increases one's work goals progress at the end of the workday, whether the person is proactive by nature or not. People with proactive personalities are more likely to seek proactive problem solving (Parker et al., 2006), though they may not achieve better progress on their work goals than less proactive people. Individuals use initiative to make progress and satisfy their needs (Deci & Ryan, 2000), and therefore, the benefit of achieving a goal does not depend on the level of proactivity itself.

We will discuss the implications of these findings in more detail further.

Theoretical Implications

Our study contributes to research on personal initiative, or more broadly, on proactive behaviour, in several ways. First of all, proactive behaviour research has been evolving from focusing solely on its benefits (Crant, 2000; Frese & Fay, 2001; Parker et al., 2010) to then solely on its potential adverse consequences (Bolino et al., 2010; Strauss et al., 2017). Cangiano and Parker's (2015) theoretical model first integrated the streams of research, but this model has not been empirically tested. To the best of our knowledge, this study is the first one to empirically test the Cangiano and Parker (2015) dual-pathway theoretical model, aiming to investigate the distinct daily resource-gaining and resource-depleting mechanisms of proactive behaviour in the form of taking personal initiative. Although we failed to find significant support for the resource-depleting mechanism, our results provide strong evidence supporting the resource-gaining function of proactive behaviour. Such findings extend the existing empirical research on the well-being benefits of proactive behaviour that used longer time lags (Taris & Wielenga-Meijer, 2010; Wang & Li, 2015) by not only suggesting that personal initiative leads to daily well-being benefits but also revealing that it is through progressing on one's daily work goals that such benefit is achieved. Consequently, we contribute to the view of the more prominent benefits of pursuing personally important goals (Sheldon & Kasser, 1998; Fleeson & Cantor, 1994; Wiese & Freund, 2005) and expand the current view on the positive subjective well-being outcomes of the work goals progress (Klug & Maier, 2015; Maier & Brunstein, 2001; Brunstein et al., 1998). In particular, we highlight that personal initiative behaviour is the trigger of this process.

Secondly, we investigated the relationship between personal initiative and emotional exhaustion based on a daily diary study design, which, to the best of our knowledge, has not been done before. Previously, this relationship has been found in cross-sectional studies (e.g., Wang & Li, 2015), over a fixed period (e.g., Taris & Wielenga-Meijer, 2010), or as part of a

longitudinal study (e.g., Zacher et al., 2019). By applying the daily diary design, we were able to provide empirical evidence on the dynamic relationship between morning personal initiative and end-of-day emotional exhaustion, emphasising the immediate benefits of daily proactive behaviour. Besides, by utilising a multilevel design, we were able to incorporate the between- and within-individual fluctuations, providing a more comprehensive view of this dynamic relationship. Consequently, our study makes a methodological contribution by adding strong empirical evidence to the field.

Thirdly, we found that the benefits of showing initiative in reducing emotional exhaustion are more prominent for people who score higher on proactive personality. This finding extends Ryan et al. (2019) theoretical vision of the role personality traits play in influencing people's engagement in proactive behaviour to satisfy their needs of seeking better well-being. Our results contribute to the existing evidence of the buffering role of proactive personality on the relationship between other predictors and emotional exhaustion (Jawahar et al., 2012; Parker & Sprigg, 1999) and emphasize the important role of proactive personality regarding how effective personal initiative can reduce emotional exhaustion. Consequently, we add to the common narrative that a proactive personality remains one of the most desirable features of modern employees (McCormick et al., 2019) by showcasing its important role in helping individuals better acquire psychological resources.

Lastly, our evidence regarding emotional exhaustion negatively predicting individuals' relaxation in the evening adds another dimension to the existing research on recovery (Bennet et al., 2018). Our findings contribute to the view that emotionally exhausted individuals would lack the resources to engage in relaxation activities (Xanthopoulou et al., 2018) and, therefore, their well-being becomes compromised. Besides, our conclusion regarding the positive effect of work goals progress on emotional exhaustion, and subsequent better relaxation extends the view on the influence of work-related rumination, such as

problem-solving pondering (Querstret & Cropley, 2012), on individual recovery. Consequently, our study suggests that the resource-gaining mechanism of personal initiative is reflected in better recovery, particularly when individuals feel they have made progress on their work goals.

Practical Implications

Our finding on the resource-gaining nature of initiative behaviour offers a few practical implications for organisations, managers and employees. First, we show that proactive behaviour is beneficial not only because it leads to better performance (Tornau & Frese, 2013) but also because it helps reduce employees' emotional exhaustion and increases end-of-workday relaxation. Hence, it is advisable for employers to encourage their personnel to show initiative to gain resources from solving complex problems and deliver productive results. A decrease in exhaustion is likely to translate into lower absenteeism and presenteeism rates (Cooper & Dewe, 2008), boosting employees' performance and job/life satisfaction. Indeed, our study indirectly designates the importance of primary interventions to nurture, reward and promote employee initiative behaviour. Therefore, one of the practical implications for organisations would be creating an initiative-welcoming and rewarding company culture to support employees' well-being and achieve higher productivity.

Second, organisations could use our study results in their job design strategies to facilitate the positive well-being outcomes of personal initiative. Our results indicate the significance of the work goals progress in the resource-gaining path of proactive behaviour. By recognizing the motivational aspect of striving for psychological needs satisfaction (Strauss & Parker, 2014) and incorporating goals-planning into employees' daily work, companies could increase employees' awareness of their initiative's purpose, maximising their positive regard for their behaviour. We encourage companies to consider ways to help their employees feel that they make good progress on daily work goals, particularly those

personally relevant, such as career progress or social impact. Organisations could consider providing their staff with appropriate coaching and support to ensure their work goals align with those personally relevant individual goals. Aligning company strategic goals to the values of their employees would, therefore, aid the resource-gaining function of personal initiative. Our study suggests that the increase in employees' goals progress would reflect on their emotional well-being and consequently contribute to the overall level of happiness in the work climate. At the individual level, formalising work goals engages people's commitment and serves as a motivation to act on them (O'hora & Maglieri, 2006). Therefore, adopting a formal goal-planning process is a valuable practical implication on both individual and organisational levels: it is a practicable tool stimulating employees' initiative and enabling their accountability. Not only can it serve as a performance assessment tool, but it also provides for employees' self-reflection and emotional benefits.

Finally, our findings suggest that naturally proactive people benefit even more from their initiative behaviour and show even lower levels of exhaustion. Such a finding indicates that employees, particularly those willing to manage their careers actively, should seek ways to utilise this natural advantage. Our results suggest that proactive individuals should strive for initiative-nurturing working environments where they could thrive and gain resources. Consequently, understanding the emotional benefits of their behaviour, prioritising company culture in their job search and using it as a navigator of their career paths would maximise their well-being benefits in the longer term.

Limitations

Our study has several important limitations worth noting. First, although we used a daily-diary design to separate measurement points, there is still potential vulnerability to common-method variance issues (Podsakoff et al., 2003), as all surveys were self-reported measures. Nevertheless, measuring such variables as emotional exhaustion and relaxation

with self-reporting methods enables participants to express their feelings using their own perceptions. People react differently to the same stimuli, depending on their individual differences in cognition and motivation (Lazarus, 1966). Moreover, self-reports are valuable tools for collecting individuals' data in their interpretation through a prism of other contextual factors. Therefore, despite their weaknesses, self-reported measures are widely used in the field (Spector, 1994) and were appropriate for this study. Nonetheless, future studies could consider other measuring techniques to support the data validity, such as using peer- or supervisor-rated proactive behaviour (Vazire & Mehl, 2008) or utilising available electronic tools (Sierk et al., 2022) to capture well-being in a more objective way.

Another potential limitation is the fact that the data collection happened during the acute phase of the COVID-19 pandemic in New Zealand. Specifically, the majority of participants recorded their answers during the first weeks of returning to work after spending several weeks in strict lockdown. We made efforts to minimise the pandemic's impact by only collecting participants' data after returning to their normal working conditions (i.e. working at their regular employer premises). However, we should not underestimate the potential psychological uplifting effect of regaining freedom and returning to work (Tan et al., 2020; Hargreaves et al., 2021) that could have potentially inflated the motivation to show initiative and enjoy its benefits. This effect could have impacted the overall perception of emotional exhaustion and skewed our results towards the resource-gaining path. Future research may consider replicating our study in less disruptive conditions to clarify whether such an effect occurred and its potential significance.

Although our study demonstrates the dynamic relationship between personal initiative, emotional exhaustion, and recovery on a daily basis, we were not able to address the potential cumulative effect of well-being benefits of initiative behaviour. Hakanen et al. (2008) discussed the positive gain spirals of personal initiative in relation to individual

resources in the work context. Hence, assuming the resource-gaining path could accumulate well-being benefits over time, expanding the study's time frame in future could explore longer-term organisational and individual outcomes of personal initiative.

Besides, our study design did not provide for testing causal or reciprocal relationships between the variables. Efficient recovery is believed to lead to better performance the following day and enhance proactivity (Sonnentag, 2003). Therefore, a potential direction for future research could be studying reciprocal or cyclical relationships between relaxation and personal initiative. Such insights could potentially further guide strategic organisational decisions regarding incorporating relaxation techniques into improving employees' mental health and well-being, as well as stimulating their initiative.

Given that we have not found evidence to support the resource-depleting path, we suggest future research to address potential other factors affecting people's well-being after showing initiative. For example, Strauss et al. (2017) concluded that proactive behaviour increased job strain when employees experienced a sense of pressure and did not have their own autonomous motivation. In other words, the resource-depleting path may be activated by the moderating influence of an external or internal factor, which we did not include in our model. Future research could address this by considering alternative routes of how personal initiative consumes psychological resources and conditional factors in the work environment affecting this process, as well as further exploring the goals-oriented culture's impact on initiative behaviour. The start-up environment may be of particular interest for such research, where initiative behaviour is crucial for business success and is often driven by employees' personally relevant goals.

Conclusion

By utilising a daily diary design, the present study contributes to the extensive research on the benefits of proactive behaviour by finding that it decreases end-of-the-day

emotional exhaustion and, in turn, enhances relaxation in the evening. Our finding contrasted the resource-depleting view but supported the resource-gaining view of personal initiative. In particular, we found that making progress on work-related goals was the key mediating mechanism reflecting the resource-gaining aspect of the effect of personal initiative on emotional exhaustion. Additionally, the well-being benefits of the personal initiative are even more prominent for people with a highly proactive personality. Therefore, these findings overall indicate the critical role of proactive behaviour in achieving better subjective well-being.

References

Alarcon, G., Eschleman, K.J., & Bowling, N.A. (2009). Relationships between personality variables and burnout: A meta-analysis. *Work & Stress, Vol. 23, Issue 3,* 244-263. https://doi.org/10.1080/02678370903282600

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, Vol. 22, Issue 3,* 309–328. http://dx.doi.org/10.1108/02683940710733115

Bateman, T.S., & Crant, J.M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior, Vol. 14, Issue 2,* 103-118. https://doi-org.ezproxy.auckland.ac.nz/10.1002/job.4030140202

Belschak, F.D., Den Hartog, D.N., & Fay, D. (2010). Exploring positive, negative and context-dependent aspects of proactive behaviours at work. *Journal of Occupational and Organizational Psychology, Vol. 83, Issue 2,* 267-273. https://doi-org.ezproxy.auckland.ac.nz/10.1348/096317910X501143

Bennett, A. A., Bakker, A. B., & Field, J. G. (2018). Recovery from work-related effort: A meta-analysis. *Journal of Organizational Behavior, Vol. 39, Issue 3,* 262-275. https://doi-org.ezproxy.auckland.ac.nz/10.1002/job.2217

Bennett, A. A., Gabriel, A. S., Calderwood, C., Dahling, J. J., & Trougakos, J. P. (2016). Better together? Examining profiles of employee recovery experiences. *Journal of Applied Psychology, Vol. 101, Issue 12,* 1635–1654. http://dx.doi.org/10.1037/apl0000157

Binnewies, C., Sonnentag, S., & Mojza, E. (2009). Daily performance at work: Feeling recovered in the morning as a predictor of day-level job performance. *Journal of Organizational Behavior, Vol. 30, Issue 1,* 67-93. https://www.jstor.org/stable/20542529

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, Vol. 90, Issue 4*, 740–748. https://doi.org/10.1037/0021-9010.90.4.740

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, Vol. 83, Issue 2,* 325–345. https://doi.org/10.1348/096317910X493134

Brunstein, J., Schultheiss, O., & Grässmann, R. (1998). Personal goals and emotional well-being. *Journal of Personality and Social Psychology, Vol. 75, Issue 2*, 494-508. https://oce-ovid-com.ezproxy.auckland.ac.nz/article/00005205-199808000-00016/HTML

Carver, C.S., & Scheier, M.F. (1990). Origins and functions of positive and negative affect: A control – process view. *Psychological Review, Vol. 97, Issue 1,* 19–35. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0033-295X.97.1.19

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*. John Wiley & Sons, Ltd. https://doi-org.ezproxy.auckland.ac.nz/10.1002/9781118979013.ch11

Cangiano, F., Parker, S.K., & Yeo, G.B. (2019). Does daily proactivity affect well-being? The moderating role of punitive supervision. *Journal of Organizational Behaviour*, *Vol. 40, Issue 1,* 59– 72. https://doi-org.ezproxy.auckland.ac.nz/10.1002/job.2321

Cangiano, F., Parker, S., Ouyang, K. & (2021). Too proactive to switch off. *Journal of Occupational Health Psychology, Vol. 26, Issue 2,* 142-154.

http://dx.doi.org/10.1037/ocp0000265

Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology, Vol. 64, Issue 1*, 89–136. https://doi.org/10.1111/j.1744-6570.2010.01203.x

Cooper, C., & Dewe, P. (2008). Well-being – absenteeism, presenteeism, costs and challenges. *Occupational Medicine, Vol. 58, Issue 8,* 522-524. https://doi-org.ezproxy.auckland.ac.nz/10.1093/occmed/kqn124

Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management, Vol. 26, Issue 3,* 435–462. https://doi.org/10.1177/014920630002600304

Crant, J. M., & Bateman, T. S. (2000). Charismatic leadership viewed from above: The impact of proactive personality. *Journal of Organizational Behavior, Vol. 21, Issue 1,* 63-75. https://doi-org.ezproxy.auckland.ac.nz/10.1002/(SICI)1099-1379(200002)21:1<63::AID-JOB8>3.0.CO;2-J

Crant, M.J., Hu, J. & Jiang, K. (2017). Proactive Personality: A twenty-year review. In S. K. Parker & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations*. Taylor & Francis. https://books.google.co.nz/books?hl=en&lr=&id=7kUlDwAAQBAJ&oi=fnd&pg=PP1&dq=proactivity+at+work+parker+bindl&ots=dpc7TvxwOX&sig=CVIDe9ZqbnGDHbVkuUUuba_IizA#v=onepage&q=proactivity%20at%20work%20parker%20bindl&f=false

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, Vol. 11, Issue 4,* 227–268. https://doi-org.ezproxy.auckland.ac.nz/10.1207/S15327965PLI1104_01

Demerouti, E., Bakker, A. B., Geurts, S. A. E., & Taris, T. W. (2009). Daily recovery from

work-related effort during non-work time. In P. L. Perrewé, & D. C. Ganster (Eds.), *Research in occupational stress and well-being (Vol. 7)*. Emerald Group Publishing. https://doi.org/10.1108/S1479-3555(2009)0000007006

Diener, E., & Fujita, F. (1995). Resources, personal strivings, and subjective well-being: A nomothetic and idiographic approach. *Journal of Personality and Social Psychology, Vol. 68, Issue 5,* 926–935. doi: 10.1037/0022-3514.68.5.926

Etherington, T. R. (2021). Mahalanobis distances for ecological niche modelling and outlier detection: implications of sample size, error, and bias for selecting and parameterising a multivariate location and scatter method. *PeerJ*, *Issue 9*, e11436. https://link.gale.com/apps/doc/A661418826/AONE?u=learn&sid=bookmark-AONE&xid=0612e8fd

Fay, D., & Hüttges, A. (2017). Drawbacks of proactivity: Effects of daily proactivity on daily salivary cortisol and subjective well-being. *Journal of Occupational Health Psychology, Vol. 22, Issue 4,* 429–442. https://doi.org/10.1037/ocp0000042

Fleeson, W., & Cantor, N. (1994). Goal relevance and the affective experience of daily life: Ruling out situational explanations. *Motivation and Emotion, Vol. 19, Issue 1,* 25–57. https://doi-org.ezproxy.auckland.ac.nz/10.1007/BF02260671

Frese, M. & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior, Vol. 23*, 133-187. https://doi.org/10.1016/S0191-3085(01)23005-6

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*, *Vol. 70, Issue 2,* 139-161. https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.2044-8325.1997.tb00639.x

Fritz, C., & Sonnentag, S. (2005). Recovery, health, and job performance: Effects of weekend

experiences. *Journal of Occupational Health Psychology, Vol. 10, Issue 3,* 187–199. https://doi.org/10.1037/1076-8998.10.3.187

Fuller, B., Jr., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the proactive personality literature. *Journal of Vocational Behavior, Vol. 75, Issue 3*, 329–345. https://doi.org/10.1016/j.jvb.2009.05.008

Gawke, J. C., Gorgievski, M. J. & Bakker, A. B. (2018). Personal costs and benefits of employee intrapreneurship. *Journal of Occupational Health Psychology, Vol. 23, Issue 4,* 508-519. http://dx.doi.org/10.1037/ocp0000105

Grebner, S., Semmer, N., & Elfering, A. (2005). Working conditions and three types of well-being: A longitudinal study with self-report and rating data. *Journal of occupational health psychology, Vol. 10, Issue 1,* 31-43. https://doi.org/10.1037/1076-8998.10.1.31

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, Vol. 63, Issue 3,* 539–560. https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1744-6570.2010.01180.x

Gump, B. B. & Matthews, K. A. (2000). Are vacations good for your health? The 9-year mortality experience after the multiple risk factor intervention trial. *Psychosomatic Medicine, Vol. 62, Issue 5,* 608-612. https://oce-ovid-com.ezproxy.auckland.ac.nz/article/00006842-200009000-00003/HTML

Hahn, V. C., Frese, M., Binnewies, C., & Schmitt, A. (2012). The role of hedonic and eudaimonic well-being in business owners' personal initiative. *Entrepreneurship: Theory & Practice, Vol. 36, Issue 1,* 97–114. https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1540-6520.2011.00490.x

Hakanen, J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit

innovativeness. *Journal of Vocational Behavior, Vol. 73, Issue 1.* 78-91. https://doi-org.ezproxy.auckland.ac.nz/10.1016/j.jvb.2008.01.003

Hargreaves, E. A., Lee, C., Jenkins, M., Calverley, J. R., Hodge, K., & Houge Mackenzie, S. (2021). Changes in physical activity pre-, during and post-lockdown COVID-19 restrictions in New Zealand and the explanatory role of daily hassles. *Frontiers in Psychology*, *Vol. 12*, 1-13. https://www.frontiersin.org/article/10.3389/fpsyg.2021.642954

Harvey, S., Blouin, C., & Stout, D. (2006). Proactive personality as a moderator of outcomes for young workers experiencing conflict at work. *Personality and Individual Differences, Vol. 40, Issue 5,* 1063-1074. https://doi.org/10.1016/j.paid.2005.09.021

Ilies, R., Dimotakis, N., & De Pater, I. E. (2010). Psychological and physiological reactions to high workloads: Implications for well-being. *Personnel Psychology, Vol. 63, Issue 9,* 407–436. https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1744-6570.2010.01175.x

Janssen, O., Lam, C.K., & Huang, X. (2010). Emotional exhaustion and job performance: The moderating roles of distributive justice and positive affect. *Journal of Organizational Behaviour, Vol. 31, Issue 6,* 787-809. https://doi-org.ezproxy.auckland.ac.nz/10.1002/job.614

Jawahar, I., Kisamore, J.L., Stone, T.H., & Rahn, D.L. (2012). Differential effect of inter-role conflict on proactive individual's experience of burnout. *Journal of Business and Psychology, Vol. 27, Issue 2,* 243–254. https://doi-org.ezproxy.auckland.ac.nz/10.1007/s10869-011-9234-5

Klug, H.J.P. & Maier, G.W. (2015). Linking goal progress and subjective well-being: A meta-analysis. *Journal of Happiness Studies, Issue 16,* 37–65. https://doi-org.ezproxy.auckland.ac.nz/10.1007/s10902-013-9493-0

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, Vol. 59, Issue 2,* 414–435. http://dx.doi.org/10.5465/amj.2014.0262

Lazarus, R. S. (1966). Psychological stress and the coping process. McGraw-Hill.

Li, M., Wang, Z., Gao, J., & You, X. (2017). Proactive personality and job satisfaction: The mediating effects of self-efficacy and work engagement in teachers. *Current Psychology, Issue 36,* 48–55. https://doi.org/f9zrv3

Maier, G.W., & Brunstein, J.C. (2001). The role of personal work goals in newcomers' job satisfaction and organizational commitment: a longitudinal analysis. *Journal of Applied Psychology, Vol. 86, Issue 5,* 1034-1042. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0021-9010.86.5.1034

Maslach, C. (1993). Burnout: A multidimensional perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 19–32). Taylor & Francis.

Maslach, C., & Jackson, S. E. (1993.) *Maslach burnout inventory.* Consulting Psychologists Press.

McCormick, B.W., Guay, R.P., Colbert, A.E., & Stewart, G.L. (2019). Proactive personality and proactive behaviour: Perspectives on person–situation interactions. *Journal of Occupational and Organisational Psychology, Vol. 92, Issue 1,* 30-51. https://doi-org.ezproxy.auckland.ac.nz/10.1111/joop.12234

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological bulletin*, *Vol. 126, Issue 2,* 247-259. https://doi.org/10.1037//0033-2909.126.2.247

O'hora, D., & Maglieri, K. (2006). Goal statements and goal-directed behavior. *Journal of*

Organizational Behavior Management., Vol. 26, Issue 1-2, 131-170. https://doi.org/10.1300/J075v26n01_06

Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management, Vol. 36, Issue 4,* 827–856. https://doi.org/10.1177/0149206310363732

Parker, S. K. & Sprigg, C. A. (1999). Minimizing strain and maximizing learning: the role of job demands, job control, and proactive personality. *Journal of Applied Psychology, Vol. 84, Issue 6,* 925–939. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0021-9010.84.6.925

Parker, S.K., Wang, Y., & Liao, J. (2019). When is proactivity wise? A review of factors that influence the individual outcomes of proactive behavior. *Annual Review of Organizational Psychology and Organizational Behavior, Vol. 6, Issue 1,* 221-248. https://doi-org.ezproxy.auckland.ac.nz/10.1146/annurev-orgpsych-012218-015302

Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology, Vol. 91, Issue 3,* 636–652. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0021-9010.91.3.636

Pingel, R., Fay, D., & Urbach, T. (2019). A resources perspective on when and how proactive work behaviour leads to employee withdrawal. *Journal of Occupational & Organizational Psychology, Vol. 92, Issue 2,* 410-435. https://doi-org.ezproxy.auckland.ac.nz/10.1111/joop.12254

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, Vol. 88, Issue 5,* 879–903. http://dx.doi.org/10.1037/0021-9010.88.5.879

Querstret, D. & Cropley, M. (2012). Exploring the relationship between work-related

rumination, sleep quality, and work-related fatigue. *Journal of Occupational Health Psychology, Vol. 17, Issue 3,* 341-353. https://oce-ovid-com.ezproxy.auckland.ac.nz/article/00060745-201207000-00008/HTML

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, Vol. 2, Issue 2,* 702-717. https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1751-9004.2008.00098.x

Ryan, R. M., Soenens, B., & Vansteenkiste, M. (2019). Reflections on self-determination theory as an organizing framework for personality psychology: Interfaces, integrations, issues, and unfinished business. *Journal of Personality*, *Vol. 87, Issue 1,* 115–145. https://doi-org.ezproxy.auckland.ac.nz/10.1111/jopy.12440

Scott, B. A., & Barnes, C. M. (2011). A multilevel field investigation of emotional labor, affect, work withdrawal, and gender. *Academy of Management Journal, Vol. 54, Issue 1,* 116–136. https://doi.org/10.5465/AMJ.2011.59215086

Schmitt, A., Den Hartog, D. & Belschak, F. (2015). Is outcome responsibility at work emotionally exhausting? Investigating employee proactivity as a moderator. *Journal of Occupational Health Psychology, Vol. 20, Issue* 4, 491-500. http://dx.doi.org/10.1037/a0039011

Searle, B. (2008). Does personal initiative training work as a stress management intervention? *Journal of Occupational Health Psychology, Vol. 13, Issue 3,* 259-270. https://oce-ovid-com.ezproxy.auckland.ac.nz/article/00060745-200807000-00005/HTML#context-R1-5

Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, *Vol. 84, Issue 3,* 416–427. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0021-9010.84.3.416

Sheldon, K. M., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality & Social Psychology Bulletin, Vol. 24, Issue 12*, 1319. https://link.gale.com/apps/doc/A53390345/AONE?u=learn&sid=bookmark-AONE&xid=b8c69bd1

Sierk, A., Travers, E., Economides, M., Loe, B., Sun, L., & Bolton, H. (2022). A new digital assessment of mental health and well-being in the workplace: Development and validation of the Unmind Index. *JMIR Mental Health, Vol. 9, Issue 1,* e34103. https://doi.org/10.2196/34103

Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: a new look at the interface between nonwork and work. *Journal of Applied Psychology, Vol. 88, Issue 3,* 518–528. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0021-9010.88.3.518

Sonnentag, S., & Grant, A. M. (2012). Doing good at work feels good at home, but not right away: When and why perceived prosocial impact predicts positive affect. *Personnel Psychology, Vol. 65, Issue 3,* 495–530. https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1744-6570.2012.01251.x

Sonnentag, S. & Fritz, C. (2007). The recovery experience questionnaire. *Journal of Occupational Health Psychology, Vol. 12, Issue 3,* 204–221. https://doi-org.ezproxy.auckland.ac.nz/10.1037/1076-8998.12.3.204

Sonnentag, S., Kuttler, I., Fritz, C. (2010). Job stressors, emotional exhaustion, and need for recovery: A multi-source study on the benefits of psychological detachment. *Journal of Vocational Behavior, Vol. 76, Issue 3,* 355-365, https://doi.org/10.1016/j.jvb.2009.06.005

Spector, P. E. (1994). Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior, Vol. 15, Issue 5,* 385–392. http://www.jstor.org/stable/2488210

Strauss, K., Griffin, M. A., & Parker, S. K. (2012). Future work selves. *Journal of Applied Psychology, Vol. 97, Issue 3,* 580–598. https://doi-org.ezproxy.auckland.ac.nz/10.1037/a0026423

Strauss, K., & Parker, S. K. (2014). Effective and sustained proactivity in the workplace: A self-determination theory perspective. In M. Gagné (Ed.), *Oxford library of psychology. The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 50–71). https://doi.org/10.1093/oxfordhb/9780199794911.013.007

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, Vol. 100,* 15-26. https://doi.org/10.1016/j.jvb.2017.02.001

Tan, W., Hao, F., McIntyre, R.S., Jiang, L., Jiang, X., Zhang, L., Zhao, X., Zou, Y., Hu, Y., Luo, X., Zhang, Z., Lai, A., Ho, R., Tran, B., Ho, C., & Tam, W. (2020). Is returning to work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. *Brain, Behavior, and Immunity, Vol. 87,* 84-92. https://doi.org/10.1016/j.bbi.2020.04.055

Taris, T. & Wielenga-Meijer, E. (2010). Workers' personal initiative as a moderator of the relations between job characteristics and well-being. *Psychological reports, Vol. 107, Issue 1,* 255-64. https://doi-org.ezproxy.auckland.ac.nz/10.2466/01.02.09.20.PR0.107.4.255-264

Tornau, K., & Frese, M. (2013). Construct clean-up in proactivity research: A meta-analysis on the nomological net of work-related proactivity concepts and tehri incremental validities. *Applied Psychology: An International Review, Vol. 62, Issue 1,* 44-96.

https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1464-0597.2012.00514.x

Thomas, J.P., Whitman, D.S., & Viswesvaran, C. (2010). Employee proactivity in organizations: A comparative meta-analysis of emergent proactive constructs. *Journal of Occupations & Organizational Psychology, Vol. 83, Issue 2,* 275-300. https://doi-org.ezproxy.auckland.ac.nz/10.1348/096317910X502359

Thompson, J. A. (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology, Vol. 90, Issue 5,* 1011–1017. https://doi-org.ezproxy.auckland.ac.nz/10.1037/0021-9010.90.5.1011

Vazire, S. & Mehl, M. (2008). Knowing me, knowing you: The accuracy and unique predictive validity of self-ratings and other-ratings of daily behavior. *Journal of personality and social psychology, Vol. 95, Issue 5,* 1202-1216. https://doi-org.ezproxy.auckland.ac.nz/10.1037/a0013314

Wanberg, C. R., Zhu, J., & Van Hooft, E. A. J. (2010). The job search grind: Perceived progress, self-reactions, and self-regulation of search effort. *Academy of Management Journal, Vol. 53, Issue 4,* 788–807. https://doi-org.ezproxy.auckland.ac.nz/10.5465/AMJ.2010.52814599

Wang, H. & Li, J. (2015). How trait curiosity influences psychological well-being and emotional exhaustion: The mediating role of personal initiative. *Personality and Individual Differences, Vol. 75,* 135-140. https://doi.org/10.1016/j.paid.2014.11.020

Westman, M., & Eden, D. (1997). Effects of a respite from work on burnout: Vacation relief and fade-out. *Journal of Applied Psychology, Vol. 82, Issue 4,* 516–527. https://doi.org/10.1037/0021-9010.82.4.516

Wiese, B., & Freund, A. (2005). Goal progress makes one happy, or does it? Longitudinal findings from the work domain. *Journal of Occupational & Organizational Psychology, Vol. 78, Issue 2,* 287–304. https://doi-

org.ezproxy.auckland.ac.nz/10.1348/096317905X26714

Wu, C.-H., Parker, S. K., Wu, L.-Z., & Lee, C. (2018). When and why people engage in different forms of proactive behavior: Interactive effects of self-construals and work characteristics. *Academy of Management Journal, Vol. 61, Issue 1,* 293–323. https://doi-org.ezproxy.auckland.ac.nz/10.5465/amj.2013.1064

Xanthopoulou, D., Bakker, A.B., Oerlemans, W.G.M., & Koszucka, M. (2018). Need for recovery after emotional labor: Differential effects of daily deep and surface acting. *Journal of Organizational Behaviour*, *Vol. 39, Issue 4,* 481– 494. https://doi-org.ezproxy.auckland.ac.nz/10.1002/job.2245

Zacher, H., Schmitt, A., Jimmieson, N. L., & Rudolph, C. W. (2019). Dynamic effects of personal initiative on engagement and exhaustion: The role of mood, autonomy, and support. *Journal of Organizational Behavior, Vol. 40, Issue 1,* 38–58. http://dx.doi.org/10.1002/job.2277

Zijlstra, F.R.H. & Sonnentag, S. (2006). After work is done: Psychological perspectives on recovery from work. *European Journal of Work and Organizational Psychology, Vol. 15, Issue 2,* 129-138. https://doi-org.ezproxy.auckland.ac.nz/10.1080/13594320500513855

Table 1

Descriptive statistics and inter-correlations among studied variables

Variable	M	*SD*	1	2	3	4	5	6	7
1. Age	37.92	10.35	(-)						
2. Gender	1.86	.34	.03	(-)					
3. Personal initiative	3.59	.74	-.02	.03	(.84)				
4. Work goals progress	3.54	.84	.09*	.08	.33**	(.84)			
5. Emotional exhaustion	2.91	1.01	-.10*	.01	-.14**	-.33**	(.86)		
6. Relaxation	3.60	.94	-.03	-.08	.15**	.13**	-.35**	(.91)	
7. Proactive personality	5.04	.99	-.07	-.06	.25**	.15**	-.10*	.13**	(.72)

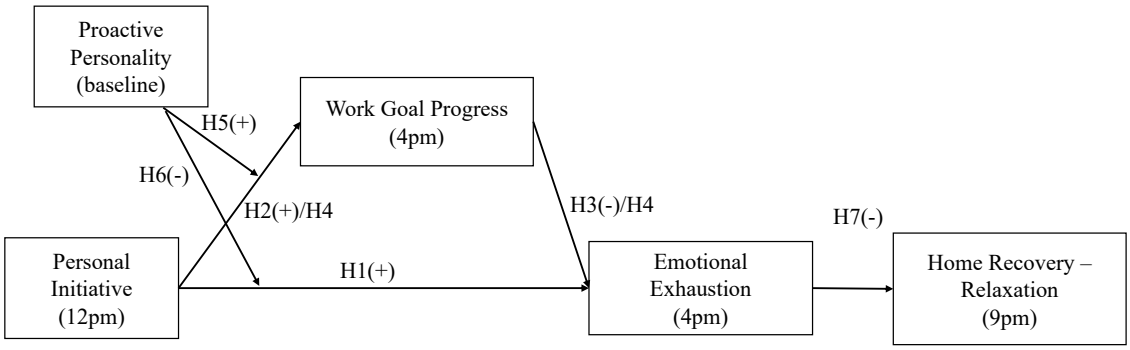
Note: N = 597. M = mean, SD = standard deviation. Cronbach's alphas were reported at the diagonal. $^{**}p < .01$, $^{*}p < .05$, all tests two-tailed.

Table 2

Results of the multilevel regression analysis

Variables	Work goals progress		Emotional exhaustion		Relaxation	
	γ	*SE*	*γ*	*SE*	*γ*	*SE*
Model 1 - Direct effects model						
Intercept	1.86***	.36	3.86***	.47	4.63***	.47
Age	.01*	.01	-.01	.01	-.01	.01
Gender	.15	.14	.06	.19	-.10	.17
Personal initiative	.29***	.05	-.18***	.06	.10	.05
Work goals progress	-	-	-.34***	.04	-.03	.05
Emotional exhaustion	-	-	-	-	-.31***	.04
Model 2 - Interactions						
Intercept	2.83***	.31	3.30***	.43	-	-
Age	.01*	.01	-.01	.01	-	-
Gender	.18	.14	.02	.19	-	-
Personal initiative	.28***	.05	-.17**	.06	-	-
Proactive personality	.08	.05	-.09	.07	-	-
Personal initiative X proactive personality	.07	.05	-.14**	.06	-	-

Note: Level-1 N = 530; Level-2 N= 143. * $p < .05$, ** $p < .01$, *** $p < .001$



Note: H4 indicates the mediation hypothesis.

Figure 1. Hypothesised model

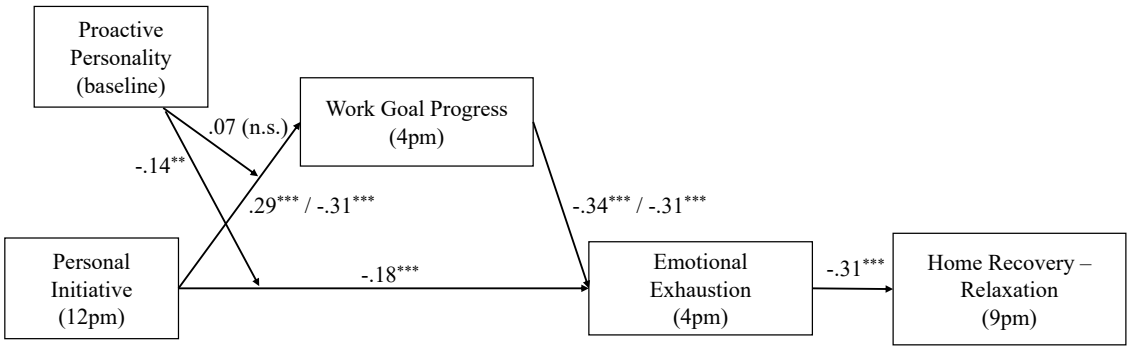


Figure 2. Regression coefficients

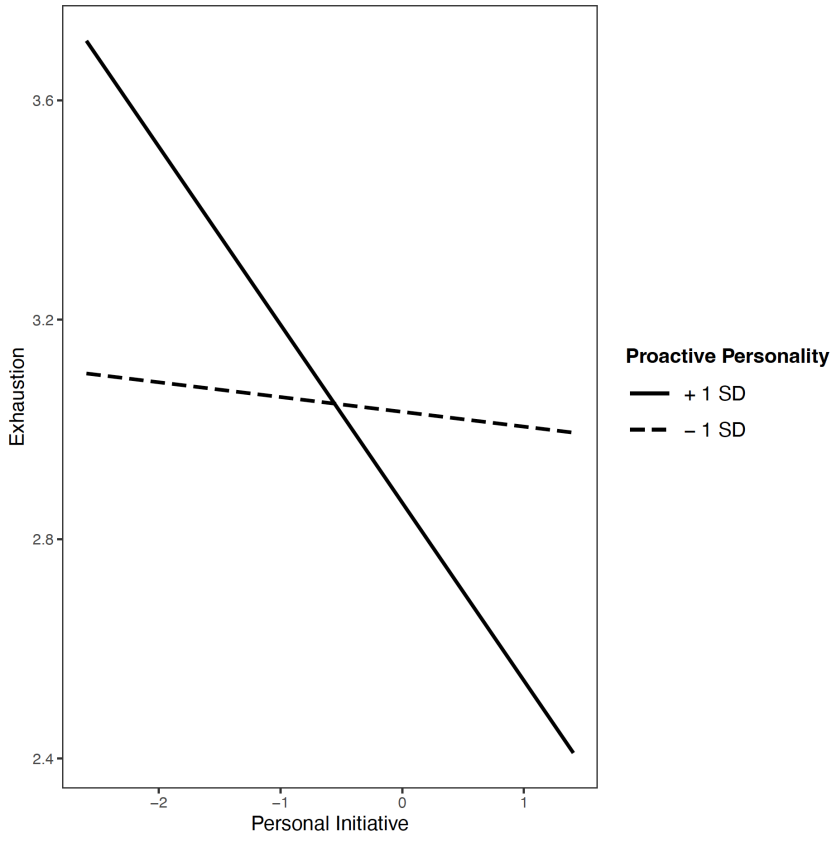


Figure 3. The moderating effect of proactive personality on the relationship between personal initiative and emotional exhaustion

Appendix A: Invitation to Participate

THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

SCIENCE
SCHOOL OF PSYCHOLOGY

Participants needed for a workplace study!

You may be eligible if you:

- Are over the age of 18.

- Are in paid employment for at least 30 hours per week between the hours of 7 a.m. and 7 p.m. Monday—Friday.

- Have worked at the same organisation for more than 6 months.

We are looking for participants for a 5-day survey study examining how daily work experiences may impact employee family/home life outside the workplace. This will involve completing a daily diary three times a day over five working days (Monday-Friday) about your work experiences. If you're interested in how daily work experiences affect your life outside of work, then we would love to hear from you!

Participants will receive up to $60 in vouchers (choice of petrol or grocery) to thank you for your time!

If you are interested in participating or would like more information, please contact me at: dyas757@aucklanduni.ac.nz

This study has been approved by the University of Auckland Human Participants Ethics Committee on 16/08/2021 for three years (16/08/2024). Reference number UAHPEC22761.

Image designed by Storyset.

Appendix B: Confirmation Email

Dear Participant,

Thank you for your interest to our research project!

To register, please click on the following anonymous survey link: https://auckland.au1.qualtrics.com/jfe/form/SV_00rWQDKkX8fvF78

In this registration form, we ask you to provide us with your email address (any email address that you have access to; not necessarily your work email). We will then send you the *pre-diary questionnaire* via the email. In this pre-diary questionnaire, you will be asked to complete several measures assessing a range of individual differences and general work experiences. You will also have the option to provide your cell phone number if you prefer to provide your daily diary responses via your phone. This pre-diary questionnaire will take around 15 minutes of your time.

Once you have completed the pre-diary questionnaire, you will then be asked to complete a *daily diary* three times a day over five working days (Monday — Friday). Specifically, we ask you to report on:

- your work experiences around lunch time (around 11 a.m.) and
- before you get off work (around 4 p.m.), and
- your family experiences before you go to bed (around 9 p.m.).

Each diary entry should take about 5 minutes of your time to complete; together, three diaries (i.e., at 11 a.m., 4 p.m., and 9 p.m.) will take about 15 minutes of your time each day. The resulting data from both the pre-dairy questionnaire and the daily diary will be combined across the entire sample. The detailed information about this study can be found in the attached Participant Information Sheet.

Your participation in this study will contribute to our understanding of the work-home interface. Eventually, the knowledge gained will allow us to design a better work life and improve employee work and home life.

For any questions regarding this project, please contact Dr Jiang (l.jiang@auckland.ac.nz), Dr Sheng (zshe257@uoa.auckland.ac.nz), or the Head of the School of Psychology, Professor Suzanne Purdy, The University of Auckland, Private Bag 92019, Auckland. Phone 373 7599, extn. 82073.

For any queries regarding ethical concerns, you may contact the Chair, The University of Auckland Human Participants Ethics Committee, Office of Research Strategy and Integrity, The University of Auckland, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 83711. Email: humanethics@auckland.ac.nz.

Sincerely yours,
Daryna Yashan

Post-graduate Student, Master of Organisational Psychology
School of Psychology, University of Auckland

Approved by the University of Auckland Human Participants Ethics Committee on 16/08/2021 for three years (16/08/2024). Reference number UAHPEC22761.

Appendix C: Participant Information Sheet

THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

SCIENCE
SCHOOL OF PSYCHOLOGY

Science Centre
23 Symonds Street, Auckland,
New Zealand
T +64 9 923 8557
W auckland.ac.nz

The University of Auckland
Private Bag 92019
Auckland 1142 New Zealand

Participant Information Sheet

Date:	June, 2021
Title of Project:	A daily diary study of work-home interface among employees
Principal Investigator:	Senior Lecturer Dr Lixin Jiang School of Psychology, University of Auckland Science Centre, Building 301, Room 235B Phone: 09 923 9278 E-mail: l.jiang@auckland.ac.nz
Co-Investigator:	Lecturer Dr Zitong Sheng School of Psychology, University of Auckland Science Centre, Building 301, Room 211 E-mail: zshe257@uoa.auckland.ac.nz

Researcher Introduction
You are invited to participate in a research study being conducted by Senior Lecturer Lixin Jiang, Lecturer Zitong Sheng, and Master Students of Organisational Psychology from the School of Psychology at the University of Auckland. The data collected in this study will be used for students' Masters' theses/dissertations as well as academic publications. The purpose of this sheet is to provide you with information about the study to help you decide if you would like to be a part of the study.

The Study Purpose
Adults employed full time in New Zealand work an average of 40 hours per week, which is a big part of our waking life. Our daily work experiences have a significant impact on our family/home life. This research study is to examine how daily work experiences may impact employee family/home life outside the workplace.

To be eligible, participants must be 18 years of age or older, work at least 30 hours per week between the hours of 7 a.m. and 7 p.m. Monday—Friday at a paid job, and work at the same organisation for more than 6 months.

Project Procedures
All questionnaires are web-based and hosted by Qualtrics. If you are interested in participating, please register your interest via the survey link where we ask you to provide us with your email address (any email address that you have access to; not necessarily your work email). We will then send you the *pre-diary questionnaire* via the email. In this pre-diary questionnaire, you will be asked to complete a variety of measures assessing a range of individual differences and general work experiences. You will also have the option to provide your cell phone number if you prefer to provide your daily diary responses via your phone. This pre-diary questionnaire will take around 15 minutes of your time.

Once you have completed the pre-diary questionnaire, you will then be asked to complete a *daily diary* three times a day over five working days (Monday — Friday). Specifically, we ask you to report on your work experiences around lunch time (around 11 a.m.) and before you get off work (around 4 p.m.), and on your family experiences before you go to bed (around 9 p.m.). Each diary entry should take about 5 minutes of your time to complete; together, three diaries (i.e., at 11 a.m., 4 p.m., and 9 p.m.) will take about 15 minutes of your time each day. The resulting data from both the pre-dairy questionnaire and the daily diary will be combined across the entire sample.

Benefits of Participation
Your participation in this study will contribute to our understanding of the work-home interface. Eventually, the knowledge gained will allow us to design better work life and improve employee work and home life.

Your participation will also help our Master students to complete their degree as they will analyse the data collected in this study to write up their theses or dissertations.

Finally, to thank you for your time and effort as well as your contribution to the study, you will receive up to $60 (petrol or grocery gift vouchers) for completing the study in full. Specifically, participation in the pre-diary questionnaire will lead to a $10 voucher, while participation in three daily diaries each day will lead to a $10 voucher (for a total of $50 for Monday to Friday). Finally, you can choose either petrol or grocery gift vouchers. Upon request, a summary of the results will be shared with you via your email.

Confidentiality and Privacy
No one in your workplace will ever see your individual responses. All surveys will be handled by University of Auckland lecturers, Masters students, and research assistants. Your answers will be coded and kept at University of Auckland.

Please note that all of your responses are strictly confidential and private. We will not ask your name at any point. To link your questionnaire responses to your diary records, you will be asked to answer a set of questions as your personal ID code that only you will know. Your responses and diary data will be converted to anonymous numbers in a secure data file, and your identity will never be associated with your pre-diary questionnaire or diary responses at any time. Your responses will be stored on password-protected files in a University managed server. Only Dr Jiang, Dr Sheng, and Master students of Organisational Psychology will have access to the aggregated data.

Data storage/future use
At the end of the 5-day data collection period, all data will be combined across the sample, preserving the anonymity of each participant's data. All data will be stored indefinitely for research purposes but will at no time be identifiable as yours. Finally, in addition to the Masters theses or dissertations by Masters students, the results of this study may also be published or presented at professional meetings, but the identities of all research participants will remain confidential.

Right to Withdraw from participation
Your participation in this research study is completely voluntary. Prior to beginning the questionnaires, you are invited to practice any tikanga Māori protocols that you deem to be appropriate. You may choose not to be a part of this study. There will be no penalty to you if you choose not to take part. You may choose not to answer specific questions or to stop participating at any time without giving reason. Please note that you will have till *1st Dec 2021* to withdraw any information provided to the researchers. If you wish to do so, please email Dr Jiang. You will be asked to enter your personal code so that we can identify your responses.

Potential risks
The potential risks from taking part in this research are discomfort resulting from answering questions that remind you of negative work experiences. This research is designed to minimize risks and discomfort, but if you experience any distress, you may feel free to *skip* any question that you don't feel comfortable answering, or you may *quit* your participation at any time with no repercussions in respects to your current or future employment.

THIS STUDY IS APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 16/08/2021. Reference Number UAHPEC22761.

If you need further support, please use these links below.

- The Ministry of Health (Mental Health Services): https://www.health.govt.nz/your-health/conditions-and-treatments/mental-health
- Worksafe: https://worksafe.govt.nz/managing-health-and-safety/
- Māori health service: https://www.raukura.org.nz/?url=/
- Youthline (0800 376 633)
- The Depression Helpline (0800 111 757)
- Healthline (0800 611 116)
- Lifeline (0800 543 354)

Contact details
For any questions regarding this project, please contact Dr Jiang (l.jiang@auckland.ac.nz), Dr Sheng (zshe257@uoa.auckland.ac.nz), or the Head of the School of Psychology, Professor Suzanne Purdy, The University of Auckland, Private Bag 92019, Auckland. Phone 373 7599, extn 82073.

UAHPEC Chair contact details
For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, Office of Research Strategy and Integrity, The University of Auckland, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 83711. Email: humanethics@auckland.ac.nz

We thank you for your help and hope that you will find this study interesting.

THIS STUDY IS APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 16/08/2021. Reference Number UAHPEC22761.

Appendix D: General Questionnaire Template (Baseline)

Q1 Consent Form

Title: A daily diary study of work-home interface among employees

Principal Investigator: Senior Lecturer Dr Lixin Jiang
School of Psychology, University of Auckland
Science Centre, Building 301, Room 235B
Phone: 09 923 9278
E-mail: l.jiang@auckland.ac.nz
Co-Investigator: Lecturer Dr Zitong Sheng
School of Psychology, University of Auckland
Science Centre, Building 301, Room 211
E-mail: zshe257@uoa.auckland.ac.nz
Head of Department: Professor Susanne Purdy
Head of School of Psychology, University of Auckland
Email: sc.purdy@auckland.ac.nz
Phone: 09 923 2073

I have read the Participant Information Sheet and understood the nature of the research and that I am eligible to participate. I have had the opportunity to ask questions and have had them answered to my satisfaction.

By clicking on the "I consent and would like to continue" button below, I indicate that: I understand the information given to me in this sheet and the Participant Information Sheet, which includes the contact details for support. I understand the research study and the potential benefits and risks that are involved. I understand that the information I provide in the pre-diary questionnaire and daily diaries will be a part of this research study unless I withdraw the data (till 1st Dec 2021). I understand that all data will be stored indefinitely on the PIs' university computer with password protection for research purposes but will at no time be identifiable as mine. I understand that the researchers will use the email address and/or my cell phone to invite me to complete anonymous follow-up daily diaries, until the completion of this research study. I understand that taking part in this study is voluntary and I may withdraw from the study, without giving any reason, at any time.

Statement of Consent

By clicking "I consent and would like to continue" below I give my voluntary consent to take part in this study. I may print a copy of this consent document for my record.

Approved by the University of Auckland Human Participants Ethics Committee on 16/08/2021. Reference Number UAHPEC22761.

- ○ **I consent and would like to continue.** (4)
- ○ **I do not agree to participate in this study.** (5)

Q2
We would like to begin by asking a few questions about your personal background and demographic characteristics. Read each item and mark the option that describes you best.

Please note: Although such information could conceivably be used to attempt to identify individual respondents, we are only interested in this information to compare groups of individuals (for example, males and females etc.). Please also remember that all of your responses are completely confidential and you are free to skip any question you do not wish to answer for whatever reason.

Q3 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Another gender (please specify): (3) _____

Q4 What is your age?

	18	24	30	37	43	49	55	61	68	74	80
Age ()											

Q7 Are you a full-time or part-time employee?

- ○ Full-time (1)
- ○ Part-time (2)

Q8 Are you on a continued or temporary work contract?

- ○ Continued (1)
- ○ Temporary (2)

Q9 How many hours do you work in a typical week?

	0	6	12	18	24	30	36	42	48	54	60
# hours per week ()											

Q10 How long have you been a member of your current organisation, in years and months? (e.g. 3 years and 4 months)

	0	4	8	12	16	20	24	28	32	36	40
Years ()											
Months ()											

Q13 What is the postal code of your work place?

_____

Q14 What is the postal code of your home address?

_____

Q15 What is your job title?

_____

Q21
This section of the questionnaire asks about various aspects about yourself. Read each statement and select the option that best describes your experience. There are **NO** right or wrong answers. Remember that all your answers are strictly **ANONYMOUS** and **CONFIDENTIAL.**

Q24 Using a scale from "strongly disagree" to "strongly agree", please indicate your level of agreement regarding how each of the following statements describes you.

	Strongly disagree (1)	Disagree (2)	Slightly disagree (3)	Neither agree nor disagree (4)	Slightly agree (5)	Agree (6)	Strongly agree (7)
If I see something I don't like, I fix it. (1)	○	○	○	○	○	○	○
No matter what the odds, if I believe in something I will make it happen. (2)	○	○	○	○	○	○	○
I love being a champion for my ideas, even against others' opposition. (3)	○	○	○	○	○	○	○
I excel at identifying opportunities. (4)	○	○	○	○	○	○	○
I am always looking for better ways to do things. (5)	○	○	○	○	○	○	○
If I believe in an idea, no obstacle will prevent me from making it happen. (6)	○	○	○	○	○	○	○

Q27 Thank you for participating in this pre-diary questionnaire. We will soon invite you to complete the daily diary surveys. We would like you to be completely honest when completing these questionnaires.

Your responses to the survey items will be entirely anonymous and confidential. However, we would like to be able to match your responses over time. Therefore, the purpose of the following questions is to create a unique code that will allow us to achieve this goal while still preserving your confidentiality. Your responses to the questions below will not allow us to identify you in any way, but are unique to you. Many people are participating in our research and may have similar answers on some of the questions below, but it is very unlikely that two people will have exactly the same answers to all the questions below.

No one at your workplace will ever be able to use these responses to identify your responses.

Please answer each question below. An example has been provided to assist you.

Example: What are the first two letters of your mother's maiden name?: **AG** What is the first letter of the city you were born in?: **O** How many siblings do you have? (Please format this in two digits, e.g. 6 siblings becomes 06): 06 On what day of the month were you born (e.g., 9th)? (Please format this in two digits, e.g. the 9th becomes 09).: 09

Please complete the following questions:

○ First two letters of your mother's maiden name (1) _____

○ First letter of the city you were born in (2) _____

○ Number of siblings you have (3) _____

○ Day of the month you were born (4) _____

Q28
According to the answers you provided, your unique personal code is:

${Q27/ChoiceTextEntryValue/1}${Q27/ChoiceTextEntryValue/2}${Q27/ChoiceTextEntryValue/3}${Q27/ChoiceTextEntryValue/4}

First two letters of your mother's maiden name ${Q27/ChoiceTextEntryValue/1}
First letter of the city you were born in ${Q27/ChoiceTextEntryValue/2}
Number of siblings you have (two digits) ${Q27/ChoiceTextEntryValue/3}
Day of the month you were born (two digits) ${Q27/ChoiceTextEntryValue/4}

If you have mis-typed anything in your unique personal code, please provide a corrected version of your unique personal code here:

Q29 We will soon send you anonymous daily diary questionnaires.

We would like to send you reminders via text messages. Please type your cell phone number here. Your phone number will only be used for this research purpose and will not be shared with anyone other than researchers.

Appendix E: Daily Morning Questionnaire Template (12pm)

Q16 Please indicate the current alert level at which your work is operating.

- ○ Alert 2 (1)
- ○ Alert 3 (2)

Q6 Based on this morning's experience, please indicate your level of agreement with each of the following statements.

This morning…

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I looked for better ways to do things. (37)	○	○	○	○	○
I actively attacked problems. (38)	○	○	○	○	○
I took the initiative to start new projects/tasks. (39)	○	○	○	○	○

Q44 Thank you for participating in this morning's survey. We will soon invite you to complete the afternoon survey. We would like you to be completely honest when completing these questionnaires.

Your responses to the survey items will be entirely anonymous and confidential. However, we would like to be able to match your responses over time. Therefore, the purpose of the following questions is to create a unique code that will allow us to achieve this goal while still preserving your confidentiality. Your responses to the questions below will not allow us to identify you in any way, but are unique to you. Many people are participating in our research and may have similar answers on some of the questions below, but it is very unlikely that two people will have exactly the same answers to all the questions below.

No one at your workplace will ever be able to use these responses to identify your responses.

Please answer each question below. An example has been provided to assist you.

Example: What are the first two letters of your mother's maiden name?: **AG** What is the first letter of the city you were born in?: **O** How many siblings do you have? (Please format this in two digits, e.g. 6 siblings becomes 06): 06 On what day of the month were you born (e.g., 9th)? (Please format this in two digits, e.g. the 9th becomes 09).: 09

Please complete the following questions:

- ○ First two letters of your mother's maiden name (1) _____
- ○ First letter of the city you were born in (2) _____
- ○ Number of siblings you have (3) _____
- ○ Day of the month you were born (4) _____

Q45
According to the answers you provided, your unique personal code is:

${Q44/ChoiceTextEntryValue/1}${Q44/ChoiceTextEntryValue/2}${Q44/ChoiceTextEntryValue/3}${Q44/ChoiceTextEntryValue/4}

First two letters of your mother's maiden name ${Q44/ChoiceTextEntryValue/1}
First letter of the city you were born in ${Q44/ChoiceTextEntryValue/2}
Number of siblings you have (two digits) ${Q44/ChoiceTextEntryValue/3}

Day of the month you were born (two digits) ${Q44/ChoiceTextEntryValue/4}

If you have mis-typed anything in your unique personal code, please provide a corrected version of your unique personal code here:

End of questionnaire

Note: The Alert Levels system was introduced in New Zealand to track the safety levels during the COVID-19 pandemic (https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/#alert-levels). To ensure the participants' working environments were as close to their normal as possible, we only collected data during the Alert level 2, when people could go back to work at their regular employer's premises. The question regarding the alert levels were included here as a precaution.

Appendix F: Daily Afternoon Questionnaire Template (4pm)

Q20 Please indicate the current alert level at which your work is operating.

- ○ Alert 2 (1)
- ○ Alert 3 (2)

Q3 Reflect on your work experience today, to what extent do you agree with the following statements:

Today at work,

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I made a great deal of progress toward achieving my work goals. (4)	○	○	○	○	○
I hardly made any progress in achieving my work goals. (5)	○	○	○	○	○
I had a productive day today in relation to my work goals. (6)	○	○	○	○	○
I felt used up. (7)	○	○	○	○	○
I felt emotionally drained (8)	○	○	○	○	○
I felt burned out. (9)	○	○	○	○	○

Q7 Thank you for participating in this afternoon's survey. We will soon invite you to complete the evening survey. We would like you to be completely honest when completing these questionnaires.

Your responses to the survey items will be entirely anonymous and confidential. However, we would like to be able to match your responses over time. Therefore, the purpose of the following questions is to create a unique code that will allow us to achieve this goal while still preserving your confidentiality. Your responses to the questions below will not allow us to identify you in any way, but are unique to you. Many people are participating in our research and may have similar answers on some of the questions below, but it is very unlikely that two people will have exactly the same answers to all the questions below.

No one at your workplace will ever be able to use these responses to identify your responses.

Please answer each question below. An example has been provided to assist you.

Example: What are the first two letters of your mother's maiden name?: **AG** What is the first letter of the city you were born in?: **O** How many siblings do you have? (Please format this in two digits, e.g. 6 siblings becomes 06): 06 On what day of the month were you born (e.g., 9th)? (Please format this in two digits, e.g. the 9th becomes 09).: 09

Please complete the following questions:

- ○ First two letters of your mother's maiden name (1) _____
- ○ First letter of the city you were born in (2) _____
- ○ Number of siblings you have (3) _____
- ○ Day of the month you were born (4) _____

Q8
According to the answers you provided, your unique personal code is:

${Q7/ChoiceTextEntryValue/1}${Q7/ChoiceTextEntryValue/2}${Q7/ChoiceTextEntryValue/3}${Q7/ChoiceTextEntryValue/4}

First two letters of your mother's maiden name ${Q7/ChoiceTextEntryValue/1}
First letter of the city you were born in ${Q7/ChoiceTextEntryValue/2}
Number of siblings you have (two digits) ${Q7/ChoiceTextEntryValue/3}
Day of the month you were born (two digits) ${Q7/ChoiceTextEntryValue/4}

If you have mis-typed anything in your unique personal code, please provide a corrected version of your unique personal code here: _____

End of questionnaire

Note: The Alert Levels system was introduced in New Zealand to track the safety levels during the COVID-19 pandemic (https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/#alert-levels). To ensure the participants' working environments were as close to their normal as possible, we only collected data during the Alert level 2, when people could go back to work at their regular employer's premises. The question regarding the alert levels were included here as a precaution.

Appendix G: Daily Evening Questionnaire Template (9pm)

Q28 Please indicate the current alert level at which your work is operating.

- ○ Alert 2 (1)
- ○ Alert 3 (2)

Q1 Based on **this evening's** experience, please indicate your level of agreement with each of the following statements.

During your time after work today, ...

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
I kicked back and relaxed. (5)	○	○	○	○	○
I did relaxing things. (6)	○	○	○	○	○
I used the time to relax. (7)	○	○	○	○	○
I took time for leisure. (8)	○	○	○	○	○

Q11 Thank you for participating in this evening's survey. We would like you to be completely honest when completing these questionnaires.

Your responses to the survey items will be entirely anonymous and confidential. However, we would like to be able to match your responses over time. Therefore, the purpose of the following questions is to create a unique code that will allow us to achieve this goal while still preserving your confidentiality. Your responses to the questions below will not allow us to identify you in any way, but are unique to you. Many people are participating in our research and may have similar answers on some of the questions below, but it is very unlikely that two people will have exactly the same answers to all the questions below.

No one at your workplace will ever be able to use these responses to identify your responses.

Please answer each question below. An example has been provided to assist you.

Example: What are the first two letters of your mother's maiden name?: **AG** What is the first letter of the city you were born in?: **O** How many siblings do you have? (Please format this in two digits, e.g. 6 siblings becomes 06): 06 On what day of the month were you born (e.g., 9th)? (Please format this in two digits, e.g. the 9th becomes 09).: 09

Please complete the following questions:

- ○ First two letters of your mother's maiden name (1) _____
- ○ First letter of the city you were born in (2) _____
- ○ Number of siblings you have (3) _____
- ○ Day of the month you were born (4) _____

Q12
According to the answers you provided, your unique personal code is:

${Q11/ChoiceTextEntryValue/1}${Q11/ChoiceTextEntryValue/2}${Q11/ChoiceTextEntryValue/3}${Q11/ChoiceTextEntryValue/4}

First two letters of your mother's maiden name ${Q11/ChoiceTextEntryValue/1}
Last letter of the city you were born in ${Q11/ChoiceTextEntryValue/2}
Number of siblings you have (two digits) ${Q11/ChoiceTextEntryValue/3}
Day of the month you were born (two digits) **${Q11/ChoiceTextEntryValue/4}**

If you have mis-typed anything in your unique personal code, please provide a corrected version of your unique personal code here:

End of questionnaire

Note: The Alert Levels system was introduced in New Zealand to track the safety levels during the COVID-19 pandemic (https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/#alert-levels). To ensure the participants' working environments were as close to their normal as possible, we only collected data during the Alert level 2, when people could go back to work at their regular employer's premises. The question regarding the alert levels were included here as a precaution.