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The Role of Savoring Positive Experiences When Faced with Challenge and Hindrance Demands: A Longitudinal Study

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THE ROLE OF SAVORING POSITIVE EXPERIENCES WHEN FACED WITH
CHALLENGE AND HINDRANCE DEMANDS: A LONGITUDINAL STUDY

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Industrial-Organizational Psychology

by
Anton I. Sytine
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Accepted by:
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ABSTRACT

The goal of the present study was to examine the moderating effects of savoring and both challenge and hindrance job demands on the longitudinal relationship between job resources and engagement and burnout, mediated by personal resources, represented by psychological capital (PsyCap). Building upon previous research (Xanthopoulou et al., 2007; Xanthopoulou et al., 2009), Time 1 job resources were positively related to Time 2 engagement and negatively related to Time 2 burnout through Time 1 personal resources. In addition, Time 1 savoring was found to significantly interact with Time 1 job resources to predict Time 2 burnout, whereby savoring magnified the negative relationship between Time 1 job resources and Time 2 burnout. However, the moderating effects of challenge and hindrance demands were not found in the smaller matched sample. In the larger Time 1 sample, challenge demands enhanced the positive relationship between job resources and engagement, as well as enhanced the negative relationship between personal resources and burnout. Hindrance demands also significantly interacted with personal resources and job resources to predict engagement. Finally, in the larger Time 1 sample, savoring again amplified the negative relationship between job resources and burnout. These findings first demonstrate that the presence of challenge and hindrance job demands may significantly affect employees' work engagement and symptoms of burnout given the availability of job resources. Furthermore, savoring positive experiences may be beneficial to employees' mental health by diminishing symptoms of burnout when more job resources are available.

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CHAPTER ONE

INTRODUCTION

Experiencing high work pressure, work overload, role ambiguity, and stressful interactions with peers or clients may result in the experience of job-related strain and symptoms of burnout: chronic exhaustion, cynicism towards work, and reduced job efficacy, as well as job-related depression and absenteeism. However, the presence of job resources, such as autonomy, performance feedback, and social support, may mitigate the negative effects of job demands (Bakker, Demerouti, & Schaufeli, 2003b; Maslach, Schaufeli, & Leiter, 2001). Previous research (Crawford, LePine, & Rich, 2010) has also distinguished between challenge demands and hindrance demands, where challenge demands may elicit personal growth and development and are related to positive work related outcomes; while hindrance demands act as greater obstacles to employees and are related to more negative outcomes in the workplace. However, in instances where employees have access to few job resources, how can they maximize the benefits of the available resources while also buffering the negative effects of increasing job demands?

Personal resources, such as self-efficacy, organization-based self-esteem, and optimism, have been examined in the context of the Job Demands-Resources model (JD-R), and have been found to mediate the relationship between job resources and work engagement and work exhaustion (Xanthopoulou et al., 2007). Previous research has suggested that the availability of job resources may have a greater effect on outcomes through enhancing employees' resiliency beliefs, such as self-efficacy, self-esteem, and optimism in their work environment (Xanthopoulou et al., 2007). In this dissertation I framed psychological capital (PsyCap) as a personal resource in the context of the JD-R

model. PsyCap is a collective term referring to the positive psychological states of hope, optimism, resilience, and self-efficacy, some of which have been exclusively examined as personal resources in the JD-R literature (Xanthopoulou et al., 2007; Xanthopoulou et al., 2009b). Furthermore, previous research has demonstrated that savoring positive experiences is related to higher resilience, optimism, and overall PsyCap (Smith & Hollinger-Smith, 2015; Sytine et al., 2018b), which may thus further enhance the positive effects of job resources and personal resources on engagement and mitigate burnout.

The ability to savor positive experiences addresses an individual's capacity to elicit more positive emotions from positive experiences, and has the potential to enhance other personal resources, namely, PsyCap. Savoring may therefore amplify the motivational potential of job resources and positive experiences while simultaneously buffering the negative effects of job demands. Savoring positive experiences has been shown to be associated with greater positive affect, resilience, optimism and PsyCap; as well as be negatively related to symptoms of depression and anxiety disorders (Eisner, Johnson, & Carver, 2009; Sytine et al., 2018b; Wood, Heimpel, & Michela, 2003).

To my knowledge, no research has examined savoring in the context of the JD-R model. Furthermore, few studies have examined savoring among employee samples. Previous research has examined the relationship between savoring strategies among sales managers and perceptions of performance-oriented HR practices, affective commitment, and engagement. The role of savoring in work-family-conflict, as well as the relationship between savoring and employees' sense of coherence and work related resources (Camgoz, 2014; Castanheira & Story, 2016; Nilsson, Andersson, Ejlertsson, & Troein, 2012).

The present study examined savoring within the context of the JD-R literature, specifically, the longitudinal relationships between savoring, personal resources (PsyCap), job resources (e.g., autonomy) and challenge and hindrance job demands (e.g., high workload) at Time 1, and employee engagement and burnout at Time 2. Specifically, the present study examined the mediating role of personal resources on the Time 1 job resources and Time 2 engagement and burnout relationships, and explores the moderating effects of savoring on the relationship between job resources and personal resources at Time 1, in addition to the Time 1 job resources-Time 2 engagement and Time 2 burnout relationships. Furthermore, this dissertation builds upon the previous findings by Bakker and Sanz-Vergel (2013), by attempting to replicate the moderating effects of challenge and hindrance demands on the Time 1 job resources-Time 2 engagement and Time 2 burnout relationships. See Figure 1 for conceptual model of hypotheses.

The study expands the current literature on savoring by providing unique contributions in: 1) examining savoring among employees across diverse occupations; 2) framing PsyCap as a personal resource; 3) examining relationships between savoring, job resources, personal resources, challenge and hindrance job demands, engagement, and burnout over time; 4) examining whether savoring has a unique effect on the relationship between job resources and personal resources by boosting the effects of job resources and 5) whether savoring moderates the relationship between job resources, engagement, and burnout. A summary figure of all proposed relationships can also be found in Figures 1 through Figure 4.

The model in the present study (Figures 1 –4) was designed to build upon the previous findings by Bakker and Sanz-Vergel (2013), Camgoz (2014), Tadic et al. (2015), and Xanthopoulou et al. (2007; 2009). Rather than incorporating savoring into the traditional JD-R model of burnout, or the dual process JD-R model (Figure 5 & Figure 6), the present study incorporates savoring into the model depicted by Xanthopoulou et al (2007), which emphasizes the job resources-engagement relationship mediated by personal resources. Firstly, the present model demonstrates that Time 1 personal resources (PsyCap) mediates the relationship between Time 1 job resources and Time 2 engagement and Time 2 burnout. Next, Time 1 savoring was expected to interact with Time 1 job resources to predict Time 1 personal resources as well as Time 2 engagement and burnout. Challenge and hindrance job demands at Time 1 were expected to interact with Time 1 personal resources and Time 1 job resources in predicting Time 2 engagement and burnout.

This dissertation is presented in the following form: the first chapter provides the theory of savoring, highlighting research with employees and non-employees. The next chapter provides an explanation of the JD-R model, including the research from which the JD-R model originated and support for the model. Next, personal resources will be discussed, with an emphasis on psychological capital (PsyCap). Then, I present a discussion of the relevance of savoring to the JD-R model, and the unique contributions of the present study. The paper will continue with a summary of the hypotheses, followed by a description of the methods used, including participants, the procedure, and measures used. The next section will provide the results of the Time 1 data analyses, followed by the Time 2 analyses. Finally this dissertation concludes with the discussion section,

highlighting the significance of the results, the implications, limitations, and future directions.

CHAPTER TWO

SAVORING

As opposed to the traditional focus on distress and dysfunction, positive psychology seeks to understand the strengths, virtues, and flourishing occurring among individuals, including such qualities as well-being, satisfaction, happiness, hope, and optimism (Seligman & Csikszentimihalyi, 2000). Positive psychology aims to identify positive individual traits, such as the capacity for love, forgiveness, and wisdom at the individual level; more broadly, it examines how people participate in civic virtues, such as altruism, civility, and tolerance at the group level (Seligman & Csikszentimihalyi, 2000). Furthermore, positive emotions have been suggested to stimulate positive experiences and foster one's psychological growth and well-being over time (Fredrickson, 2001). In the following chapter, I will introduce the reader to the overall theory of savoring, how savoring has been assessed, research on savoring in non-employee samples, the role of savoring in the holistic model of stress, research on savoring among employee samples, and my proposed role of savoring within the JD-R literature.

Overall Theory of Savoring

Savoring, within the framework of positive psychology, has been defined as “a distinct form of perceived control over positive emotions,” whereby, an individual is capable of “generating, intensifying, and prolonging enjoyment through one's own volition” (Bryant, 2003, p. 176). Additionally, savoring has been proposed to function as both a trait and a state (Bryant & Veroff, 2007), with trait savoring being a stable personality trait that elicits a predisposed response to a positive experience, and state

savoring being a contextualized reaction toward the experience of positive events (Jose, Lim, & Bryant, 2012). In the context of the present study, savoring is considered to be a malleable resource that allows individuals to manipulate their ability to create, elevate, and maintain positive emotions from the experience of positive events.

It is important to make the distinction between savoring and the broader construct of mindfulness. Mindfulness involves a present awareness of one's surroundings and experiences in the moment (Beaumont, 2011; Garland et al., 2015). Savoring narrowly focuses on aspects of mindfulness, such that an individual is mindfully aware of a positive experience and strives to maintain and prolong the positive reaction from the experience (Beaumont, 2011; Bryant & Smith, 2015; Bryant & Veroff, 2007; Garland et al., 2015).

In addition, savoring and PsyCap share many similarities. They are both malleable positive psychological resources with proactive, reactive, and motivational components. They can both be developed through modeling and mastery experiences, and also be applied to different situations. However, in past research savoring has been treated as a separate construct from PsyCap. In this study I provide additional evidence that savoring is a distinct construct from PsyCap, with savoring and PsyCap loading onto two separate factors rather than combined into one factor.

Bryant (1989) has additionally proposed that positive events can be more or less pleasurable depending on one's hedonic baseline (Brickman, 1978), defined as one's relative stable level of happiness; suggesting that the experience of positive events and enjoying them are two separate processes. Therefore, understanding how an individual

attains pleasure from positive experiences is essential to the development and maintenance of happiness.

In order to better understand the relationship between life events and mental health, Bryant (1989) developed a four-factor model of perceived control that combined primary control (attempts to change the world) and secondary control (attempts to change oneself) with positive and negative experiences. The four-factor model included avoiding negative events, coping with negative events, obtaining positive events, and savoring positive events. These four factors were associated with six dimensions of subjective mental health: unhappiness, lack of gratification, strain, feelings of vulnerability, lack of self-confidence and uncertainty (Veroff, Douvan, & Kulka, 1981). The six dimensions were collectively categorized into measures of well-being and distress. Well-being included unhappiness and lack of gratification dimensions, while distress included strain (affective reactions to negative experiences) and feelings of vulnerability dimensions. Lack of self-confidence and uncertainty were combined measures of well-being and distress.

The findings from Bryant (1989) demonstrated that savoring was negatively related to unhappiness and lack of gratification, reflecting a positive relationship with well-being. Savoring was also found to be negatively related to strain, and unrelated to feelings of vulnerability, suggesting that savoring may reduce symptoms of strain, or that the lack of strain may enhance one's ability to savor. In addition, savoring was more related to happiness than obtaining positive events, which may suggest that happiness is more dependent on perceived control over emotions as opposed to the events themselves (Bryant, 1989).

Assessment of Savoring

The Savoring Beliefs Inventory (SBI) developed by Bryant (2003) was the first tool to measure savoring and is still widely used (Carl et al., 2013; Eisner, Johnson, & Carver, 2009). The SBI aims to measure an individual's ability to obtain pleasure from experiencing positive events. The SBI is composed of three components that facilitate savoring beliefs: positive anticipation (Anticipating scale), positive feeling in the moment (Savoring the moment scale), and positive reminiscence (Reminiscing scale) (Bryant, 2003). Positive anticipation reflects an individual's ability to generate positive feelings while looking forward to an event. During a positive event, an individual may promote positive feelings through specific thoughts and behaviors. Positive reminiscence addresses when an individual reflects on the positive experience and recalls their positive feelings.

The SBI was administered to six different groups to assess the reliability and validity of the measure (Bryant, 2003). Convergent and discriminant validity were assessed using studies 1-4, sampling university students from 4 Midwestern universities and comparing scores on the SBI to hypothetically correlated and uncorrelated constructs. In Study 4, a second assessment was done 3 weeks later to measure test-retest reliability. Study 5 evaluated the predictive validity of the SBI by how well it measured "individuals' subsequent experiences with an actual, real-world positive event" (Bryant, 2003; p. 188). Finally, Study 6 included a sample of older adults in order to determine the external validity by cross-validating the SBI total and subscale scores of the older adults with the university student samples. The SBI total scores and subscales were found to

show good convergent and discriminant validity, prospective validity, as well as be internally consistent and reliable between groups (Bryant, 2003).

Research on Savoring in Non-Employee Samples

A growing body of research has demonstrated that endorsing stronger savoring beliefs is associated with one's ability to maintain or increase positive emotions and well-being (Carl et al., 2014; Eisner, Johnson, & Carver, 2009; Hou et al., 2017; Quoidbach et al., 2010; Smith & Hanni, 2017; Wood, Heimpel, & Michela, 2003). Wood et al., (2003) examined differences in positive affect regulatory behaviors (savoring) across levels of self-esteem in response to self-relevant and not self-relevant events. Wood et al., (2003) hypothesized that those with high self-esteem (HSE) would engage in more efforts to enhance or continue positive affect, compared to those with low self-esteem (LSE). In addition, the influence of neuroticism and extraversion on positive affect regulation and self-esteem was examined.

Five studies were conducted in order to capture differences in positive affect regulation across personal positive events, successes, and failures. The results showed that participants with LSE dampened (diminished) their positive feelings more than HSE participants (Study 1) and that dampening was associated with lower positive affect and higher negative affect (Study 2). Studies 3 and 4 were conducted to assess whether neuroticism and extraversion accounted for the differentiation between positive and negative affect. A regression analysis showed that extraversion was more predictive of positive affect regulation than neuroticism, while neuroticism was more predictive of negative affect regulation than extraversion. In addition, self-esteem was predictive of each form of affect regulation while controlling for neuroticism and extraversion;

suggesting it is not differentially associated with positive or negative affect regulation (Study 3 and 4) (Wood et al., 2003).

Finally, Study 5 examined the effect of the self-relevance of an event on the relationship between self-esteem and affect regulation. The self-relevant event described in this study was a personal success, while the non-self-relevant event was imagining a close friend was in an automobile accident. The results indicated that HSE was more predictive of savoring when the event was personally relevant, while LSE was also found to be predictive of dampening and low savoring for both personally relevant and non-relevant of events. From these findings, the reader may infer that having HSE would facilitate savoring only when a positive event is personally relevant; contrarily, LSE would yield more dampening and difficulty savoring in both self-relevant and non-relevant events (Wood et al., 2003).

Continuing research evaluating the relationship between savoring and positive affect, Quoidback et al., (2010) sought to address the unique impact of savoring and dampening strategies on well-being. Quoidbach et al., (2010) suggested that there are four strategies of savoring and dampening behaviors. Savoring strategies include behavioral displays of positive emotional experiences, deliberate attention to the present positive experience, celebrating positive events with others, and anticipating future or remembering past positive events. Dampening strategies include suppressing positive emotions, engaging in distracting behaviors, identifying negative aspects of positive situations, and anticipating future or remembering past negative events.

Savoring and dampening strategies were assessed using the Emotion Regulation Profile-Revised (ERP-R; Nelis et al., 2011) that presented several real-life scenarios

where participants were to select any of 8 possible reactions that best represented how they might react. The reactions represented either amplifying strategies, such as savoring the moment, or dampening strategies, such as suppressing positive emotions.

The results indicated that positive affect was positively predicted by being present and having anticipatory or reminiscent positive thoughts, and negatively predicted by distractive behaviors. Life satisfaction was positively predicted by celebrating positive events with others, while negatively predicted by fault finding and anticipatory or reminiscent thoughts (Quoidbach et al., 2010). In addition, the researchers assessed how using multiple savoring strategies may impact overall happiness. The findings revealed, firstly, that overall happiness was related to savoring collectively, and second, that happiness may be achieved using any number of savoring strategies in different situations. The findings by Quoidbach et al. (2010) suggested that there is no one method that fits all applications of savoring; rather individual differences may uniquely allow individuals to adaptively apply savoring to different situations to enhance their emotional well-being.

Eisner, Johnson, and Carver (2009) further examined the relationship between positive affect regulation and symptoms of social phobia, generalized anxiety disorder, panic disorder, agoraphobia, and obsessive-compulsive disorder (OCD). A student sample consisting of 254 participants, primarily female (54%), recruited from the University of Miami completed a battery of questionnaires in fulfillment of a course requirement. Participants completed a series of measures assessing mental health symptoms and affect regulation, and were also asked whether any existing mental health symptoms had lasted for at least two weeks. Symptoms of panic disorder, agoraphobia,

generalized anxiety disorder, and social phobia reflected the experience of symptoms between two-weeks and six months.

Correlation analyses provided evidence of a positive relationship between savoring and emotion-focused positive affect strategies and a negative relationship between savoring and dampening strategies. Dampening strategies were positively related to depression and all anxiety disorder symptoms. Moreover, after controlling for depressive symptoms, dampening was positively associated to symptoms of multiple anxiety disorders excluding agoraphobia. In contrast, savoring beliefs were negatively related to symptoms of depression and symptoms of multiple anxiety disorders, including social phobia, generalized anxiety disorder, panic disorder, agoraphobia, and OCD.

Savoring has been stated to function as a “regulatory mechanism” between an individual’s perception of positive events and their positive emotional reactions (Jose, Lim, & Bryant, 2012; Bryant & Veroff, 2007). Jose et al., (2012) hypothesized that momentary savoring would moderate the relationship between daily positive events and momentary happy mood on a given day. Participants reported daily positive events on three dimensions: frequency, intensity, and impact.

Jose et al., (2012) found that momentary happy mood was highest among high savoring individuals irrespective of the number of positive events they experienced. The relationship between the experience of momentary positive events and momentary savoring was stronger for those who amplified savoring behaviors. In contrast, the relationship between momentary events and momentary savoring was weaker for people higher in dampening behaviors. Individuals low in savoring showed a stronger relationship between their experience of positive events and their mood (Jose et al.,

2012). These findings suggest that individuals who regularly savor are more likely to sustain a happy mood even in the absence of positive daily events.

Similarly, Hurley and Kwon (2013) examined the relationships between savoring the moment and daily uplifts with positive affect and life satisfaction. In addition, the authors also examined if there was an interaction between savoring the moment and daily uplifts on positive affect and overall life satisfaction, and whether the interaction would be more predictive of positive affect and life satisfaction than either variable independently. University students were recruited to participate in a longitudinal, 2-week, study with two testing sessions.

The findings by Hurley and Kwon (2013) replicated those found by Jose et al. (2012). Hurley and Kwon (2013) found that greater uplifts and higher savoring both independently contributed to higher levels of positive affect and life satisfaction at Times 1 and 2, while those who reported low levels of savoring and low levels of daily uplifts also had the lowest levels of positive affect and life satisfaction. Additionally, there was a significant interaction with higher savoring enhancing the relationship between daily positive events and positive affect and life satisfaction. However, the interaction was not more predictive than the main effects between savoring the moment or number of daily uplifts and positive affect or life satisfaction.

Although savoring positive events has been shown to be beneficial, experiencing too many positive events may hinder our ability to savor them. Quoidbach and Dunn (2013) found that when given unlimited access to a common pleasure, participants were less likely to savor it compared to when they were temporarily deprived of it. University undergraduates participated in two lab visits a week apart, Time 1 and Time 2. At Time 1

the participants were randomly assigned to a restricted access condition, where they must refrain from eating chocolate for a week, the abundant access condition, where they must eat up to two pounds of chocolate over a week, or control condition in which they were not given specific instructions related to eating chocolate. Participants from both groups then tasted a piece of chocolate at Time 2 and then completed a dispositional happiness and positive affect measures. Additionally, savoring was measured by relating the four components of savoring described by Bryant and Veroff (2007) to chocolate.

At Time 2 the participants tasted a piece of chocolate a second time and again completed the savoring and positive affect measures. Quoidbach and Dunn (2013) found that there was a significant difference in positive affect between groups at Time 2, where the restricted group had higher positive affect than the control and abundance group, whose positive affect decreased after tasting the chocolate again. There were also significant between group differences in savoring at Time 2, where the restricted group savored the chocolate at Time 2 more than the control and abundance group, both of whom showed decreases in savoring after tasting the chocolate again. There was no significant difference between the control and abundance group at Time 2 for either positive affect or savoring. Following these findings, Quoidbach and Dunn (2013) conducted a bootstrapping procedure to test whether savoring mediated the effect of being in the restricted or abundance group on positive affect at Time 2. The results of the bootstrapping revealed that participants in the restricted access group had higher positive affect at Time 2 due to their greater readiness to savor the chocolate.

These findings are further supported by additional research in which individuals who had overcome previous hardships reported an elevated capacity to savor positive

events (Croft, Dunn, & Quoidbach, 2014). Croft et al., (2014) hypothesized that those who had experienced more hardship in their lives would be more inclined to savor positive events when they occur; however, in the face of present hardship savoring would be diminished. Participants from French speaking countries participated in an online study in which they were asked about the number of negative events they had experienced in their lives, including: divorce of self/parent, discrimination, etc. as well as whether they had dealt with the event or were still struggling with it. Savoring was assessed using the ERP-R (Nelis, 2011), which allowed participants to respond to various scenarios with either a savoring strategy or dampening strategy. Additionally, the participants reported their current mood, and completed a personality inventory and an abbreviated measurement of the Big-5. The findings supported the hypothesis that past adversity was associated with greater savoring, while experiencing current hardship was associated with less savoring. The results were also significant when controlling for individual differences, including personality variables (Croft et al., 2014).

In addition to examining savoring as a predictor of indices of well-being and mental health symptoms, researchers have also examined savoring as a moderator of different variables related to indices of well-being. Smith and Hollinger-Smith (2015) examined the relationship between savoring, psychological well-being, and resilience among adults aged 55 and older. The researchers hypothesized that savoring would be positively related to indices of psychological well-being (higher happiness, lower depression, and higher satisfaction with life), greater resilience would be positively related to indices of psychological well-being, and that savoring would be a stronger predictor of psychological well-being for those with low resilience compared to high

resilience. Participants from a continuing care retirement community were included in the study, and the majority of the sample was women ranging in age from 68 to 88 years old.

The hypothesized main effects and savoring by resilience interaction were tested using multiple regression analyses. The results showed that both increased savoring and resilience independently predicted greater happiness, lower depression, and greater satisfaction with life. In addition, there was a significant interaction between savoring and resilience predicting happiness, depression, and satisfaction with life. Participants who demonstrated a greater capacity for savoring reported higher levels of happiness and less depression irrespective of their reported level of resilience. However, the relationship was strongest for those who reported lower resilience. The researchers posit that savoring positive experiences may elicit more positive emotions that compensate for deficits in resilience and facilitate psychological well-being (Smith & Hollinger-Smith, 2015).

Smith and Bryant (2016) found further evidence supporting savoring as a moderator of the relationship between health and life satisfaction among older adults (ages 55 to 94). Savoring was related to higher levels of life satisfaction, and shown to moderate the relationship between health and life satisfaction. Whereby, those who savored more had greater satisfaction with life irrespective of health, while for those who savored less, health was a greater predictor of life satisfaction (Smith & Bryant, 2016).

Hou et al. (2017) further demonstrated savoring to be associated with physical symptoms, psychological distress, and psychological well-being among recently diagnosed cancer patients. Participants completed measures of cancer-specific physical symptoms (Cheng et al., 2009), psychological distress including symptoms of anxiety and depression (Leung et al., 1993), and psychological well-being (Cheng, 2004), as well as

savoring beliefs translated into Chinese (Bryant, 2003). Savoring was found to moderate the relationship between cancer specific physical and depressive symptoms. Specifically, the association between physical symptoms and depressive symptoms was not significant at high levels of savoring, but was stronger at low and medium levels of savoring (Hou et al., 2017).

Savoring research has not only examined the relationship between savoring and mental health, but also savoring and personal development, namely creativity. In a sample of undergraduate design students from Taiwan, Lee, Wang, Yu, and Chang (2016) examined how social support for creativity by the school, professors, and classmates and savoring beliefs were related to individual creativity. Two samples were collected using fourth-year design students from multiple universities in Taiwan. The first sample used convenience sampling in order to assess the reliability and validity of the measures. Students' perceived support for creativity was assessed using an adapted version of the "encouragement of creativity" section of KEYS: Assessing the Climate for Creativity (Amabile et al., 1996). Savoring was measured using 12 items from Bryant's (2003) SBI using items from the savoring the moment, savoring through reminiscence, and savoring through anticipation subsections. Finally, individual creativity of students was assessed using 9 items from Tierney, Farmer, and Graen (1999).

The second sample, using stratified diary sampling, was selected to perform confirmatory factor analysis and hypothesis testing. Lee and colleagues (2016) hypothesized that students' perceived support for creativity would be positively related to individual creativity and savoring ability, savoring would be positively related to individual creativity, and savoring would mediate the relationship between students'

perceived support for creativity and individual creativity.

Students' perceptions of support for creativity and savoring were both predictive of individual creativity. Perceptions of support for creativity were also positively related to savoring beliefs. In addition, savoring was found to mediate the relationship between perceptions of support for creativity and individual creativity. These findings suggest that being in a supportive environment may enhance students' ability to savor positive experiences, thus facilitating creative expression (Lee et al., 2016).

In a study utilizing an experience sampling methodology, Sytine et al., (2018a) examined daily savoring as a moderator of the relationship between daily demands and daily PsyCap among university students. Participants responded to nightly online surveys over the course of eight days, assessing the number of daily demands experienced and the degree to which they savored uplifting experiences. Results showed that daily uplifts and savoring were positively related to overall daily PsyCap, as well as each individual dimension of the PsyCap. Furthermore, students who reported little savoring reported lower overall PsyCap, optimism, and resilience compared to those who savored more, especially on days with a high number of demands (Sytine et al., 2018b). These findings suggest that on days where students savor more, they are more able to focus their mental resources toward enhancing their positive expectations, recovering from adversity, and boosting their overall positive mental health; rather than focusing on the adverse outcomes associated with the experience of daily demands.

The collective body of research on savoring among non-employee samples has demonstrated the positive value of savoring on mental health, whereby savoring is positively related to positive affect, subjective well-being, happiness, and PsyCap; while

also being negatively related to negative affect, symptoms of depression, and multiple anxiety disorders (Carl et al., 2014; Eisner, Johnson, & Carver, 2009; Hou et al., 2017; Quoidbach et al., 2010; Smith & Hanni, 2017; Sytine et al., 2018a). However, little research has applied savoring beyond the scope of mental health, therefore, additional research is necessary to demonstrate the viability of savoring to other areas of human behavior and well-being.

Savoring in the Holistic Model of Stress

Although a large amount of research on savoring has been conducted among non-employee samples, less has been conducted with employees. The role of savoring among employees was introduced in the Holistic Model of Stress (Nelson & Simmons, 2011) as a means to boost the positive effects of eustress (Figure 7). The Holistic Model of Stress (Nelson & Simmons, 2011) provides a comprehensive depiction of the relationship between work stressors (demands), responses to stress, and the consequences of stress at work. Workplace stressors include role demands, interpersonal demands, physical demands, workplace policies, and job conditions. Nelson and Simmons (2011) proposed that these workplace stressors may elicit both negative and positive stress responses in individuals, distress and eustress, respectively.

According to the authors, distress is the negative psychological response resulting from experiencing demands, such as frustration and anxiety, which may then lead to negative workplace outcomes including mental health issues and diminished work performance. In contrast, eustress is the positive psychological response to demands manifested as positive psychological states including hope, meaningfulness, manageability, and positive affect; which may benefit or enhance the wellbeing of an

individual. Previous research on eustress and distress suggested that eustress may improve health by indirectly diminishing distress (Edwards & Cooper, 1988). Furthermore, Nelson and Simmons (2011) noted that distress and eustress ought to be studied as concurrent stress responses to fully understand how individual outcomes are related to work stressors.

Nelson and Simmons (2011) also proposed that savoring eustress may enhance positive outcomes for employees rather than relying on coping with distress to diminish negative outcomes. The authors argued that if individuals are able to recognize demands that generate eustress they may thus learn to generate and maintain the positive psychological states associated with those demands. For example, if an employee recognizes that maintaining a trusting relationship with their supervisor generates a sense of hope for them at work, they may engage in behaviors that increase the perception of trust between themselves and their supervisor. In addition, organizations may facilitate savoring positive experiences by creating opportunities for eustress in the presence of high demands, such as providing employees with a sense of meaningfulness in their work (Nelson & Simmons, 2011).

The Holistic Model of Stress (Nelson & Simmons, 2011) highlights an important role for savoring among employees and organizations. Although the Holistic Model of Stress is one of the few models to incorporate savoring, there is little evidence for its support. The present study hopes to expand on the potential benefits of savoring for employees by applying savoring to the JD-R literature; whereby savoring may promote the positive effects of greater job and personal resources, and buffer the impact of high job demands on individual outcomes.

Research on Savoring with Employee Samples

Little research has been conducted involving savoring among employee samples. Traditionally, savoring research has been conducted in the context of assessing the relationship between savoring and positive/negative affect, well-being and symptoms of depression, anxiety, and other mental health domains among non-employee samples (Bryant & Veroff, 2007; Carl et al., 2013; Eisner, Johnson, & Carver, 2009; Jose, Lim, & Bryant, 2012; Quoidbach et al., 2010; Wood, Heimpel, & Michela, 2003). However, according to the U.S. Department of Labor-Bureau of Labor Statistics, in 2017 the U.S. civilian population spent, on average, approximately 8 hours of the weekday and 5 hours of the weekend working or engaging in work related activities; thus amounting to a considerable amount time spent at work (US Dept. Labor, 2018). Therefore, it is important to understand how employees may maintain positive mental health and be capable of fostering positivity (i.e. savoring) under challenging circumstances in the workplace.

Hou and colleagues (2016) examined the relationship between savoring, psychological detachment, caregiver burden, and psychological distress among Chinese caregivers of recently diagnosed cancer patients. Psychological detachment was assessed using 4 adapted back-translated items (Sonnetag & Fritz, 2007), measuring the degree to which caregivers disengaged behaviorally and mentally from caregiver duty during non-caregiver time over the last week. Savoring was measured using 4 adapted back-translated items from Bryant (2003) on a 5-point scale to assess caregiver's ability to experience pleasure from positive events experienced over the last week.

Hou et al., (2016) found that both greater perceived capacity to savor the moment

and detachment were related to less caregiver burden and symptoms of anxiety and depression. Furthermore, there was a significant interaction between savoring and detachment that predicted lower caregiver burden, anxiety, and symptoms of depression. From these results, Hou et al., (2016) suggested that disengagement and savoring are both valuable methods of coping for cancer patient caregivers, and potentially caregivers of other chronic conditions.

In a study involving sales managers from one large retail store, researchers assessed the relationship between savoring strategies, perceptions of performance-oriented HR practices, work engagement, and affective commitment (Castanheira & Story, 2016). Specifically, Castanheira and Story (2016) examined whether work engagement mediates the relationship between performance-oriented HR practices and affective commitment, and whether managers' savoring strategies, namely, counting one's blessings, self-congratulations, comparison with others, and memory building (Bryant & Veroff, 2007), moderated the relationship between perceptions of performance-oriented HR practices and work engagement. The authors hypothesized that positive perceptions of performance-oriented HR practices would be reciprocated by increased affective commitment, through enhanced work engagement. In addition, the relationship between performance-oriented HR strategies and work engagement was expected to be greater when managers endorsed more savoring strategies compared to fewer. Finally, when savoring strategies were high, there would be a stronger indirect effect between perceived performance-oriented HR practices and affective commitment via work engagement (Castanheira & Story, 2016).

In a sample of sales managers, with approximately 3 years management experience, participants completed a 14-item scale of HR practices. Items assessed perceptions of training, performance appraisal, career development, rewards and compensation. Manager's savoring over the previous 3 months was assessed using 16 items from the Ways of Savoring Checklist (WOSC; Bryant & Veroff, 2007). Affective commitment was measured using 6 items, and finally, manager's work engagement was assessed using the Utrecht Work Engagement Scale (UWES; Schaufeli, Martinez, Marques Pinto, Salanova, & Bakker, 2002).

Castanheira and Story (2016) found that perceptions of performance-oriented HR practices were positively related to work engagement, and that both perceived performance-oriented HR practices and work engagement were positively related to affective commitment. Furthermore, there was a significant indirect effect whereby work engagement mediated the relationship between perceived performance-oriented HR practices and affective commitment among managers. Finally, Castanheira and Story (2016) found a significant moderated mediation effect, in which managers who endorsed more savoring strategies demonstrated a stronger relationship between perceived performance-oriented HR strategies and work engagement. Thus, at moderate and high levels of savoring strategies, the indirect positive effect of work engagement on perceived performance-oriented HR practices and affective commitment was highest.

Camgoz (2014) examined the impact of savoring positive experiences on work-family conflict (WFC) among dual-income households from multiple types of organizations, including health, education, and banking. In order to fulfill the requirements for participation, participants had to be from dual-earner households,

married or living with their partner, have at least one child, and work a minimum of 24 hours per week. Of the 354 participants who completed the study, approximately 55% were women, ages ranged from 25 to 63 years old, and having worked for over 11 years on average. Camgoz (2014) hypothesized that those who savored more overall would experience less WFC than those who savored less. In addition, it was hypothesized that those who engaged in each type of savoring (in the moment, reminiscence, and anticipation) would experience less WFC than those who savored less.

The results revealed that affect-based trust accounted for a significant amount of variability in WFC, indicating that WFC decreased for those who affectively trusted their supervisors. However, savoring was found to be negatively related to WFC, with savoring the moment being the only subscale to be significantly negatively related to WFC (Camgoz, 2014). These results demonstrated that those who savor more might be less likely to experience WFC. Camgoz (2014) argued these results are important in that they show that those who savor positive experiences may be less likely to experience interference from one domain of life unto another, such as work and family life, compared to those who savor less.

Additional research involving U.S. Army soldiers examined the role of savoring positive experiences in moderating the relationship between combat exposure, including engaging in firefights and witnessing death, and negative mental health outcomes, namely post-traumatic stress disorder (PTSD) and depression (Sytine, Britt, Pury, & Rosopa, 2018a). Soldiers who had been deployed on at least one combat operation were included in the study. It was hypothesized that the relationship between combat exposure and both PTSD and depression would be weaker among soldiers who savored more

(Sytine et al., 2018a).

The results demonstrated that savoring was associated with fewer symptoms of PTSD and depression. In addition, combat exposure was negatively related to savoring. Indicating, that soldiers who experience an increasing amount of combat may be less able to savor positive experiences. The results also were found to support savoring as a moderator of the relationship between combat exposure and symptoms of PTSD and depression. At high levels of combat exposure, compared to soldiers who savored more, soldiers who savored less had greater symptoms of PTSD and depression. The moderation effect of savoring was stronger for PTSD compared to depression, which may be the result of PTSD being the more prevalent mental health issue among soldiers returning from combat (Sytine et al., 2018a; Hoge et al., 2004).

Using data from a 9-week longitudinal field study (Fredrickson et al., 2008), Kiken, Lundberg, and Fredrickson (2017) examined how dispositional mindfulness and perceived ability to savor the moment were associated with daily positive emotions, and broader psychological health, including symptoms of depression, and psychological well-being, and satisfaction with life. The study analyzed archival data with full-time employees from a large Midwestern technological company on the waitlist control group from the broader study of Frederickson et al. (2008). In order to replicate previous findings by Fredrickson and colleagues (2008), the researchers first hypothesized that dispositional mindfulness and perceived ability to savor positive experiences would be moderately correlated. Second, Kiken et al., (2017) hypothesized that dispositional mindfulness and perceived savoring would interact to predict daily positive emotions, and

that the interaction between dispositional mindfulness and perceived savoring would indirectly predict broader psychological health over time via daily positive emotions.

In the original study (Fredrickson et al., 2008), participants were randomly assigned to a loving-kindness meditation intervention intended to increase positive emotions over time. To avoid confounds, those participants were excluded from the 2017 study. Of the waitlist control group, 89 participants completed the baseline measures at Time 1 and the Time 2 measurement periods. The participants were mostly white, non-Hispanic, female, and 42 years of age. The Time 1 measures were completed online one week following orientation, including dispositional mindfulness, perceived ability to savor the moment, symptoms of depression, psychological well-being, and satisfaction with life. The participants were also to complete a report of daily emotions for nine weeks following orientation, followed by the Time 2 assessment of the three measures of psychological health.

Kiken et al., (2017) showed that savoring uniquely predicted 12% of the between-person variance in positive emotions over time. Furthermore, savoring and mindfulness were found to significantly interact to predict positive emotions over time, with savoring being most strongly related to positive emotions at medium and high levels of mindfulness. Savoring was also found to be significantly related to psychological well-being and symptoms of depression indirectly through daily positive emotions; while satisfaction with life was only marginally indirectly related to savoring. A significant indirect effect was also found with the interaction between dispositional mindfulness and savoring in indirectly predicting psychological health (depression, psychological well-being, and satisfaction with life), with savoring being a stronger indirect predictor of

psychological health at moderate and high levels of mindfulness through positive emotions.

From these results, Kiken et al., (2017) concluded that dispositional mindfulness and perceived ability to savor complement each other in such a way that mindfulness exposes the pleasantries of experiences in everyday life and savoring enhances the pleasantries from these experiences. These findings suggest that training individuals to be more mindful and savor experiences in daily life may benefit their psychological health through positive emotions. Especially relevant to the present study, savoring may function as a complimentary resource that may enhance PsyCap (personal resources), which subsequently promote engagement and diminish job related burnout.

CHAPTER THREE

JOB DEMANDS-RESOURCES MODEL

The job demands-resources model (JD-R) model emerged as a result of two existing models that attempted to identify job characteristics related to employee outcomes, namely the Demands-Control model (DCM; Karasek, 1979) and Effort-Reward Imbalance model (ERI; Siegrist, 1996). According to the DCM, job strain is the result of high job demands and low job control, whereas the ERI model presumes that job strain is the result of an imbalance between effort and reward. Demerouti, Bakker, Nachreiner, and Schaufeli (2001) introduced the JD-R model (Figure 5) in order to examine how two broad job constructs, job demands and job resources, are respectively related to work engagement and burnout. Work engagement has been defined as the mental state where employees are absorbed and dedicated to their work, and feel a sense of vigor toward their work (Schaufeli & Bakker, 2003); while burnout has been defined as a condition of chronic exhaustion, negative attitude toward work, and diminished work related efficacy (Maslach, Schaufeli, & Leiter, 2001).

Job demands are the “physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort,” which may thus be related to the experience of impaired health and psychological processes (Demerouti et al., 2001, p. 501). In prior research, job demands have included work overload, time pressure, lack of social support, low job control, and poor performance feedback, have been well documented and linked to numerous negative reactions and outcomes (Cordes & Dougherty, 1993; DeJonge & Schaufeli 1998; Hockey, 1993; Lee & Ashforth, 1996; Leiter 1990, 1991; Maslach & Jackson, 1986). According to Hockey (1993), the

experience of demanding situations may result in compensatory behaviors, such as narrowing focus and redefining task requirements that can result in diminished energy and a state of exhaustion.

In contrast, job resources are the “physical, psychological, social, or organizational aspects of the job” (Bakker & Demerouti, 2017; p. 274) that facilitate achieving work goals, and stimulate personal growth, learning, and development. Job resources include autonomy, skill variety, performance feedback, and opportunities for growth (Bakker, 2011; Bakker & Demerouti, 2007). The presence of job resources has been linked to a number of motivational and performance variables, such as increased organizational commitment, engagement, participation in extra-role performance, and fewer turnover intentions (Bakker, Demerouti, & Schaufeli, 2003b; Bakker, Demerouti, & Verbeke, 2004; Xanthopoulou, et al., 2007).

In Demerouti and colleagues’ (2001) preliminary development and assessment of the JD-R model, the authors argued that job demands and resources might vary across occupations, thus the model was validated for three occupational groups that worked with people, things, and information. Participants in northern Germany from three different occupational fields were included in the study, including human services (e.g., nurses and teachers), industry (e.g., assembly line workers), and transportation (e.g., air traffic controllers). Individual burnout was assessed using the Oldenburg Burnout Inventory (OLBI; Demerouti, 1999) that measures two dimensions of burnout, exhaustion and disengagement from work. Job demands and job resources were assessed using eleven working conditions (Demerouti, 1999). Five items assessed job demands (physical workload, time pressure, recipient contact, shift work, physical environment) and six

items assessed job resources (feedback, rewards, job control, participation, job security, supervisory support).

To test the overall fit of the two-factor model (job demands and job resources) a CFA was conducted for each subsample, in addition to a multi group CFA. The results indicated that the two dimensions of the OLBI, exhaustion and disengagement, could be demonstrated within and outside human services occupations. Job demands were shown to be more positively related to exhaustion, while job resources were more negatively related to disengagement among all three samples. When the model was tested separately across occupations, the JD-R model fit best with the human services occupation. In addition, there were notable differences in factor loadings of job demands and resources amongst each occupational group. For example, physical workload loaded higher on job demands among industry workers compared to transportation employees for whom shift work was higher; performance feedback loaded higher on job resources for human service workers compared to industry workers for whom job control was higher (Demerouti et al., 2001).

Additional studies have provided support for a dual-pathway model (Bakker, Demerouti, & Schaufeli, 2003; Schaufeli & Bakker, 2004; Bakker & Demerouti, 2007), in which job demands and job resources generate two separate processes, the health-impairment process and motivational process (Figure 6). In the health-impairment process, job demands are related to employee health and well-being through the experience of burnout. Specifically, high job demands increase the experience of burnout, thus resulting in more negative health symptoms such as depression. In the motivational

process, job resources foster greater work related psychological states, namely engagement, that yields positive organizational outcomes such as performance (Figure 6).

A large number of studies have applied the JD-R model with various job demands and resources across occupations, providing support for the dual pathways of job demands and job resources and their respective effects on organizational outcomes. In a sample of Dutch production employees, Bakker, Demerouti, De Boer, and Schaufeli (2003) sought to examine how job demands and job resources affect the duration and frequency of absenteeism. The results demonstrated that high job demands, such as increased workload, were more predictive of burnout, with burnout being indirectly related to greater durations of absenteeism. In contrast, highly available job resources, such as job control and participation in decision-making, were more predictive of organizational commitment and fewer instances of absence from work; suggesting that employees who have access to more resources may be more motivated and committed to the organization, refraining from absence (Bakker et al., 2003).

Similarly, Bakker et al., (2003b) examined self-reported absenteeism and turnover intentions at a telecom company in the Netherlands, finding that job demands were more predictive of symptoms of job strain (e.g., exhaustion and repetitive strain injury), which were subsequently related to absence due to illness. In contrast, Bakker et al., (2003b) found that job resources were more positively related to organizational involvement, with organizational involvement being more negatively associated with turnover intentions. Furthermore, the findings showed that health problems, associated with absence due to illness, were positively related to turnover intentions. Schaufeli and Bakker (2004) found additional support for the JD-R model, demonstrating that job demands were more

predictive of burnout, especially when job resources were low, and job resources exclusively predicted engagement at work. In addition, the relationship between job demands and health problems was mediated by burnout, while the relationship between job resources and turnover intentions was mediated by engagement. Further, the presence of more job resources was related to lower turnover intentions (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

Expanding on the previous research (Schaufeli & Bakker, 2004), Hakanen, Schaufeli, and Ahola (2008) conducted a three-year study of Finnish dentists that provided longitudinal support for the dual processes (motivational and health impairment) of the JD-R model. The researchers found that job resources were positively related to organizational commitment through engagement, and that job demands were predictive of burnout over time. Additionally, the study found that burnout was related to future symptoms of depression, noting however, that it is unclear whether depression was the result of burnout or whether the two occur concurrently (Hakanen, Schaufeli, & Ahola, 2008). In line with previous research (Bakker et al., 2003; Schaufeli & Bakker, 2004), Schaufeli, Bakker, and Van Rhenen (2009) applied the JD-R model to a longitudinal yearlong study at a Dutch telecom company, examining how job demands and job resources interact to predict burnout, engagement, and sickness-related absence among managers. The results indicated that increases in job demands and decreases in job resources during the previous year predicted future burnout among managers. While increases in job resources over the past year were predictive of future engagement, with engagement being unaffected by changes in demands. Interestingly, managers who reported being more burned out over the last year spent more time (involuntary) from

work, while managers who were more engaged in their work were less frequently absent (voluntary) (Schaufeli, Bakker, & Van Rhenen, 2009).

Previous research has notably demonstrated the negative effects of burnout on organizational outcomes, namely absence and commitment, however, Bakker, Demerouti, and Verbeke (2004) sought to examine how burnout may be related to in-role and extra-role performance. The authors differentiated in-role performance as activities specifically necessary for the job, and extra-role performance as voluntary activities that directly benefit the organization as a whole but are not required aspects of the job. Applying the JD-R model, the researchers found that job demands were predictive of in-role performance through exhaustion, such that when demands were high employees may over exert themselves by applying more effort, therefore resulting in diminished performance. In contrast, when employees had access to more job resources (e.g., autonomy, social support, opportunities for professional development), they were less disengaged and more likely to participate in extra-role performance opportunities (Bakker, Demerouti, & Verbeke, 2004).

Job Resources as a Buffer

Job demands and job resources have been shown to interact wherein specific job resources may mitigate the negative effects of job demands that are related to job strain and burnout (Bakker et al., 2003c; Bakker & Demerouti, 2007; Bakker, Demerouti, & Euwema, 2005). Substantial research supports that employees who have more job resources available are better able to cope with increasing job demands (Bakker, Van Veldhoven, & Xanthopoulou, 2010; Xanthopoulou, et al., 2007). Bakker et al., (2003c) examined symptoms of burnout, including exhaustion, cynicism, and professional

efficacy, among home care employees and found that job demands were positively related to exhaustion, while job resources were negatively related to cynicism and positively related to professional efficacy. The tests of the interaction effects showed that job demands had a stronger effect on exhaustion when job resources were low. While the relationship between job resources and cynicism was strongest in the presence of many job demands, contrarily, job resources were more predictive of professional efficacy when there were few job demands. However, the authors noted that although an interaction effect was found, the presence of many job resources may not be able to fully buffer the negative effects of many job demands (Bakker et al., 2003c).

Additional support for the buffering effect was demonstrated among employees in a higher education institution in the Netherlands (Bakker, Demerouti, & Euwema, 2005). When job demands were high and there were few available job resources, employees experienced greater exhaustion and cynicism, however, when job resources were available, job demands had little to no relationship with burnout. Notably, although not all combinations of job demands and job resources interacted, autonomy was the most frequent buffer of job demands, followed by performance feedback, quality relationships with supervisors, and social support from colleagues (Bakker, Demerouti, & Euwema, 2005).

In another study, Hakanen, Bakker, and Demerouti (2005) were also able to show that job resources have a beneficial effect on work engagement in the presence of high job demands. In a sample of Finish dentists, the researchers hypothesized that the relationship between job demands and engagement would be weaker when employees had more resources, and that the relationship between job resources and engagement

would be higher in the presence of more job demands. The results supported the hypothesis in 40% of the possible interaction terms. For example, when the qualitative workload was high, positive interactions with patients buffered the negative effect of job demands on work engagement. Similarly, high contact with peers mitigated the effects of negative changes in the workplace on engagement (Hakanen, Bakker, & Demerouti, 2005).

In a similar study of Finnish teachers, researchers examined whether job resources buffer against the negative effects of demanding situations with students (Bakker et al., 2007). Teachers experience unique job demands, such as student misbehavior, which was the focus of the study. In line with previous research, Bakker et al., (2007) found that job resources, specifically supervisor support, appreciation, information, innovativeness, and the overall organizational climate, were significantly related to work engagement when teachers experienced high levels of pupil misbehavior. These findings provide additional evidence to suggest that the presence of job resources may facilitate employee engagement, especially in demanding situations (Bakker et al., 2007).

Challenge and Hindrance Job Demands

Much of the previous research on job demands has not differentiated between types of demands and their relative relationships with job resources and engagement. However, research has begun to demonstrate that some job demands are associated with more negative outcomes, while other job demands are associated with positive outcomes. These different job demands have been categorically grouped as challenge demands and hindrance demands. LePine, Podsakof, and LePine (2005) defined challenge demands as work tasks and conditions (e.g., workload and job complexity) that may elicit positive

growth, learning, and goal attainment. In contrast, hindrance demands are work tasks and conditions that do not have growth potential, such as role ambiguity and interpersonal conflict. To demonstrate the unique relationships between the type of job demands and different outcomes, in a meta-analytic review, Crawford, LePine, and Rich (2010) found that both challenge and hindrance demands were both positively related to burnout, whereas challenge demands were positively related to engagement and hindrance demands were negatively related to engagement.

Further expanding the literature, Van den Broeck, De Cuyper, De Witte, and Vansteenkiste (2010) conducted a study aimed to qualitatively differentiate between challenge and hindrance demands while controlling for job resources, and measured their respective relationships with exhaustion and engagement. Van den Broeck and colleagues (2010) described job challenges as obstacles that can be overcome, consuming energy while also being stimulating, promoting goal achievement, and contributing to need satisfaction. Consequently, because job challenges require energy, but also are stimulating, they contribute to both well-being and ill-health. Contrarily, job hindrances are threatening constraints that consume energy, hinder goal achievement, and prevent need satisfaction, resulting in diminished well-being, attitudes, and constructive behavior. Work variables that could be applied across professions were used to categorize challenge and hindrance demands, namely, work-home interference, emotional demands, workload, cognitive demands, autonomy, and social support. Work-home interference and emotional demands were categorized as job hindrances, and workload and cognitive demands as job challenges, with autonomy and social support categorized as job resources.

Two samples were used, including Dutch call center employees and Belgian police officers, to limit the possibility that the results were conditional to a single sample. Between both groups, the results supported previous findings with job hindrances being positively related to exhaustion and negatively related to engagement, and job challenges being positively related to engagement. Interestingly, job challenges were positively related to exhaustion only in the sample of police officers and were un-related to exhaustion among the call center employees, and emotional demands were negatively related to engagement only for call center employees (Van den Broeck et al., 2010). The findings by Van den Broeck et al. (2010) suggest that job demands may be interpreted differently between occupations, thusly affecting whether a job demand is perceived as a challenge or hindrance.

Bakker and Sanz-Vergel (2013) built upon the notion that perceptions of job demands may differ across occupations from Van den Broeck et al., (2010), hypothesizing that, among nurses, emotional demands would be perceived as a challenge demand while work pressure would be perceived as a hindrance demand. Two studies were conducted, the purpose of the first study was to validate the perceptions of job challenge and hindrance demands among Dutch home healthcare nurses. The second study applied the JD-R model to examine whether weekly job demands (challenge/hindrance) interacted with personal resources to predict engagement and flourishing. In study 1, two indicators for both emotional demands and work pressure were used to assess each demand as a challenge or hindrance. The results supported the Bakker and Sanz-Vergel's (2013) hypotheses that nurses perceived emotional demands as more challenging and work pressure as more hindering, contradicting alternative research

that viewed work pressure as more of a challenge demand among other occupations (Bakker & Sanz-Vergel, 2013).

In the second study, Bakker and Sanz-Vergel (2013) examined how weekly challenge and hindrance demands would interact with the relationship between weekly personal resources, including self-efficacy and optimism, and weekly work engagement and flourishing. In accordance with the findings of study 1, the researchers hypothesized that weekly emotional (challenge) demands would moderate the relationship between personal resources and engagement and flourishing, such that the relationship would be more positive when weekly challenge demands were high. Contrarily, weekly work pressure (hindrance) demands would dampen the relationship between personal resource and engagement, with the relationship being stronger when weekly hindrance demands were low.

Using experience sampling methodology, Dutch home healthcare nurses responded to a weekly diary questionnaire for 3 consecutive weeks, measuring personal resources, job demands, work engagement, and flourishing. The findings partially supported Bakker and Sanz-Vergel's (2013) hypotheses, showing that home healthcare nurses had greater engagement when their personal resources and emotional (challenge) demands were high, and flourished more when their personal resources were high and work pressure (hindrance) was low. The authors concluded that the categorization of job demands as a challenge or hindrance depends on the occupation, and that additional research is necessary in classifying job demands in other occupations and under what conditions a job demand becomes a challenge or hindrance (Bakker & Sanz-Vergel, 2013). Although the authors note that the classification of challenge and hindrance

demands may vary across occupations, the present study used a validated measure of challenge and hindrance demands that demonstrated criterion-related and external validity; signifying that both types of demands are categorically consistent across occupations (Zhang, LePine, Buckman, & Wei, 2014).

Applying the challenge-hindrance stressor model (LePine, Podsakoff, & LePine, 2005) to the JD-R model, Tadic, Bakker, and Oerlemans (2015) examined how job resources may interact with the relationship between different types of job demands and engagement and positive affect. In a five-day daily diary study with a sample of primary school teachers in Croatia, Tadic, Bakker, and Oerlemans (2015) found that job resources had both a buffering and boosting effect on hindrance demands and challenge demands, respectively. Teachers who reported more challenge demands had more positive affect and work engagement on that day, while teachers who reported more hindrance stressors had less positive affect and work engagement on that day (Tadic et al., 2015).

Furthermore, the results demonstrated that daily job resources buffered the negative relationship between daily hindrance demands and both daily positive affect and work engagement. Daily job resources boosted the positive relationship between daily challenge demands and both daily positive affect and work engagement, suggesting that teachers who had more resources benefited more from challenge demands (Tadic et al., 2015). In addition to these findings, Tadic et al. (2015) found that teachers who reported having more personal resources (e.g., psychological capital) during the day also experienced more positive affect and work engagement. Although personal resources did not significantly interact with job demands, these results still signify the importance of personal resources for employee wellbeing (Tadic et al., 2015).

To summarize, the present study seeks to contribute to the JD-R literature by replicating previous findings (Demerouti et al., 2001; Bakker, Demerouti, & Schaufeli, 2003b; Schaufeli & Bakker, 2004) across a broader sample of employees from various industries. Furthermore, research has shown that challenge and hindrance job demands have different effects on employee engagement and burnout (Crawford, LePine, & Rich, 2010), and uniquely interact with job resources to predict employee well-being (Tadic, Bakker, & Oerlemans, 2015). Thus the present research aims to build upon Tadic, Bakker, and Oerlemans' (2015) and Bakker and Sanz-Vergel's (2013) findings, to investigate the interaction effects between job resources and challenge and hindrance job demands, and between personal resources and challenge and hindrance job demands in predicting employee engagement and burnout. In addition, the present study aims to show that the perceptions of challenge and hindrance demands are relatively consistent across multiple industries, despite Bakker and Sanz-Vergel's (2013) findings that the categorization of job demands as a challenge or hindrance depends on the occupation.

Personal Resources

Personal resources have been described as individual traits that are related to one's resilience, including self-efficacy in the face of adversity and sense of mastery (Hobfoll et al., 2003). Similar to job resources, personal resources may facilitate the achievement of work-related goals and foster personal growth and development. Xanthopoulou and colleagues (2007) examined the role of self-efficacy, organization-based self-esteem, and optimism as personal resources in the JD-R model. Specifically, the researchers hypothesized that these personal resources would moderate the relationship between job demands and exhaustion, such that those with more personal

resources would experience less symptoms of exhaustion. It was also hypothesized that personal resources would partially mediate the relationship between job resources and work engagement. Finally, job demands were expected to partially mediate the relationship between personal resources and exhaustion, and that job resources would partially mediate the relationship between personal resources and engagement (Xanthopoulou et al., 2007).

Participants from a Dutch electrical engineering and electronics company participated in the study by Xanthopoulou and colleagues (2007), and completed a battery of assessments measuring job demands, job resources, personal resources, exhaustion, and burnout. The researchers found that job demands were significantly related to exhaustion, job resources were significantly related to work engagement, and personal resources were significantly related to both exhaustion and work engagement. Furthermore, personal resources mediated the relationship between job resources and work engagement and exhaustion, as well as affected how employees perceived available job resources. Availability of job resources facilitated the employees' self-efficacy, self-esteem, and optimism in their work environment. These findings suggest that job resources can have a greater effect on the outcomes related to job demands through enhancing employees' resiliency beliefs (Xanthopoulou et al., 2007).

To further examine the relationship between job resources, personal resources, and engagement, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009a) conducted a longitudinal study over the course of two years. Employees from three divisions of an electrical engineering and electronics company in the Netherlands participated in the study in which measures were taken at two time points approximately 18 months apart.

Based on Hobfoll's (2002) conservation of resources (COR) theory that the presence of existing resources brings additional resources, the authors hypothesized that job and personal resources at Time 1 would be positively related to work engagement at Time 2, work engagement at Time 1 would be positively related to job and personal resources at Time 2, and that job resources, personal resources and work engagement would be reciprocally related.

The results showed, firstly, that job resources, personal resources, and work engagement were stable over time. In addition, Time 1 job resources and personal resources both significantly predicted work engagement at Time 2, and Time 1 work engagement significantly predicted job and personal resources at Time 2. Finally, the reciprocal relationship between job resources, personal resources and work engagement was also found to be significant. These results provided further evidence to suggest that both job and personal resources play a critical role in contributing to employee engagement. Employees who are given the means to achieve their work goals and are supported by the organization, foster greater self-efficacy, optimism, and self-esteem, and may be more intrinsically motivated and feel obligated to reciprocate by providing their optimal engagement (Bakker & Demerouti, 2007; Xanthopoulou et al., 2009a).

Furthering the literature on personal resources, Xanthopoulou et al., (2009b) examined how daily fluctuations in job resources, including autonomy, coaching, and team climate, were related to employees' levels of personal resources, work engagement, and financial returns. In addition, the study sought to examine within-person fluctuations in an environment that is constantly changing, fast-food restaurants, wherein the job resources and environment may differ from day to day. The study also utilized an

objective performance outcome to demonstrate how job and personal resources and engagement interact to predict performance.

The authors first hypothesized that day-level personal resources would mediate the relationship between day-level job resources and day-level work engagement. Second, that there would be a positive relationship between day-level job resources and financial returns through day-level personal resources and day-level work engagement. Additionally, the researchers examined lagged effects predicting that the previous day's job resources would have a positive effect on the next day's work engagement mediated by personal resources the next day; as well on the next day's financial returns mediated by the next day's personal resources and engagement. Employees from three branches of a Greek fast-food restaurant participated in the study and were asked to complete a general questionnaire and fill out a daily diary for five consecutive days at the end of their shift. The general questionnaire consisted of measures assessing personal resources, including the self-efficacy, organization-based self-esteem, general optimism, and work engagement. The daily survey measured each individual's job resources, personal resources, and engagement on each day of the study.

The results indicated that all three day-level personal resources mediated the relationship between day-level autonomy and day-level work engagement, day-level self-efficacy mediated the relationship between day-level coaching and day-level work engagement, and day-level optimism partially mediated the relationship between day-level coaching and day-level engagement. Additionally, day-level work engagement was significantly related to day-level financial returns, and day-level work engagement partially mediated the relationship between day-level coaching and day-level financial

returns. Some lagged effects were also found, namely, previous day autonomy significantly predicted the next day's self-efficacy and optimism, and the previous day's coaching also predicted next day's optimism and financial returns (Xantholoupou et al., 2009b).

Emotionally laborious conditions, such as emotional demands and emotional dissonance, may also be a source of symptoms of burnout among employees. Emotional demands refer to intense interpersonal interactions that can contribute to job strain, while emotional dissonance is the conflict between experienced emotions and the emotions employees show on the surface (Totterdell & Holman, 2003; Holman, Martinez-Iñigo, & Totterdell, 2008). Xanthopoulou, Bakker, and Fischbach (2013) sought to investigate two unique effects of personal resources and emotional labor. The researchers first examined whether personal resources (self-efficacy and optimism) may serve as a buffer between emotional labor and engagement. Secondly, if emotionally laboring conditions might boost the personal resources-engagement relationship, whereby the experience of more emotional demands and dissonance may enhance the effects of personal resources on engagement. Using previously collected data (Xanthopoulou et al., 2009b), the researchers found significant buffering and boosting effects with employees' self-efficacy; showing a positive relationship between both emotionally laboring conditions and engagement when self-efficacy was high, and a negative relationship between self-efficacy and engagement when emotional labor was low. Although the effect was not significant for optimism, the findings highlight the importance of fostering personal resources in light of emotionally demanding situations.

The prevalence of job-related strain and ensuing negative work related outcomes, including disengagement, diminished job commitment, and turnover, are significant issues among employees facing high job demands, especially when there are few available job resources. However, an increasing amount of literature has suggested that the development of personal resources may enhance personal growth and development that may assist in achieving work related goals. Thus, additional research is needed to better understand the dimensions of personal resources and their effect on both individual and organizational outcomes. As such, I propose that PsyCap ought to be examined and considered as a personal resource that may be applied to the JD-R literature.

CHAPTER FOUR

PSYCHOLOGICAL CAPITAL AS A PERSONAL RESOURCE

Fredrickson et al., (2008) writes that personal resources may be cognitive, psychological, social, or physical qualities/attributes that allow individuals to effectively face challenges and promote well-being. Previous research has identified various first-order constructs as personal resources, such as optimism and self-efficacy, both of which are related to resilience (Xanthopoulou et al., 2007; Xanthopoulou, Bakker, & Fischbach, 2013). However, the literature on personal resources lacks consensus on a group of common constructs that may be collectively identified as personal resources. Fulfilling Fredrickson's and colleagues (2008) description of personal resources, psychological capital, introduced by Luthans (2002), consists of four psychological states, including hope, optimism, resilience and self-efficacy. Hope refers to perseverance and goal orientation toward success. Optimism refers to the tendency to expect positive outcomes now and in the future. Resilience refers to the perceived ability to recover from adversity. Self-efficacy refers to the belief in one's ability to succeed or accomplish a task (Luthans, Youssef, & Avolio, 2007). Collectively these four traits are known as Psychological Capital (PsyCap).

Background of PsyCap

The concept of psychological capital emerged during the positive psychology movement, when research in human behavior diverged from studying what is negative and dysfunctional to what is positive and functional (Luthans, Luthans, & Luthans, 2004). Organizational behavior research aimed at identifying positive organizational behaviors (POB), later referred to as PsyCap, focused on state-like criteria, rather than

dispositional criteria, because they could be learned, trained, developed, and managed (Luthans, 2002). Luthans, Youssef, and Avolio (2007) determined that each individual component of PsyCap, including hope, optimism, resilience, and self-efficacy, appropriately fulfilled the criteria for being state-like, able to develop, and positively related to work attitudes, behaviors, and performance (Avey, Reichard, Luthans, & Mhatre, 2011).

Each component of PsyCap uniquely contributes to various employee outcomes, that collectively reflect a highly functioning and capable employee. Hope refers to both of one's willpower and goal orientation that are developed through the self. Therefore, to have hope, one must have the will to succeed at a given task, and also have the means to do so (Snyder et al., 1996). Beyond its relevance in clinical settings, hope has been related to increased employee performance, satisfaction, commitment, happiness, and retention (Peterson & Luthans, 2003; Snyder, 2002; Snyder et al., 1996; Youssef & Luthans, 2007).

Optimism as a component of PsyCap is founded on Seligman's (1998; 2002) operationalization of how individuals explain positive and negative events through permanence and pervasiveness (Luthans, Luthans, & Luthans, 2004). Optimism may be characterized as making a stable, internal, and global attribution about a positive event, and an unstable, external, specific attribution about a negative event. Empirical evidence has demonstrated that optimism is related to employee performance, satisfaction, and happiness (Seligman, 1998; Youssef & Luthans, 2007).

Resilience in more traditional clinical psychology research has been defined as "positive coping and adaptation in the face of significant adversity or risk," (Luthans et

al., 2008, p. 222; Masten & Reed, 2002). Whereas in the POB literature, resilience is characterized as one's capability to recover (bounce-back) from an adverse situation, or even a positive change such as increased responsibility due to a promotion. Earlier research on resilience in the workplace has shown it to be related to social competence, problem solving skills, autonomy, work attitudes, and performance (Luthans, 2002; Luthans et al., 2005; Youssef & Luthans, 2007).

Finally, self-efficacy, according to Luthans et al. (2008), best fits the criteria for the POB criterion. Self-efficacy is a positive state defined as an individual's belief about their abilities to obtain the motivational, cognitive, and physical resources necessary to achieve a specific task (Stajkovic & Luthans, 1998). In addition, Bandura (1997) demonstrated that self-efficacy may be enhanced through the experience of success (task mastery), modeling, receiving positive feedback, and experiencing psychological/physiological arousal and wellness (Luthans et al., 2008).

Collectively, the four core dimensions of hope, optimism, resilience, and self-efficacy have been shown to be better predictors of performance and satisfaction compared to each individual dimension (Avey et al., 2011; Luthans et al., 2005; Luthans et al., 2006). Therefore, research involving PsyCap has predominantly used overall PsyCap, as opposed to each individual component, in predicting employee attitudes and behaviors (Avey, Luthans, & Jensen, 2009; Avey et al., 2011; Luthans et al., 2007; Luthans et al., 2008). Thus in the present study, the composite construct of PsyCap is used as a mediator of the job resources-engagement and burnout relationship.

Evidence for PsyCap in the Workplace

Previous research has demonstrated support for the four positive psychological states of PsyCap being associated with lower perceptions of overall stress (Avey et al., 2011). PsyCap, collectively, has also been shown to be related to increased psychological well-being and subjective well-being, lower stress symptoms, and both desirable and undesirable employee outcomes, such as job satisfaction, organizational commitment, job stress, and turnover intentions (Avey, Luthans, & Jensen, 2009; Avey, Luthans, Smith, & Palmer, 2010; Avey, et al., 2011; Graf, Ramsey, Patrick & Gentzler, 2015). In addition, there is evidence to suggest that PsyCap may have continuing benefits to an individual's psychological well-being (Avey et al. 2010).

Luthans et al. (2007) conducted two studies in which they first sought to confirm the higher-order factor structure of PsyCap, followed by a demonstration of the relationship between PsyCap, performance, and job satisfaction. In addition the study aimed to show that overall PsyCap would have a stronger relationship with performance and job satisfaction compared to each individual component of PsyCap (hope, optimism, resilience, and self-efficacy). The first study used three samples of management students from several large state universities in the U.S., while the second study consisted of engineers and technicians from a tech-manufacturing company and service employees from a midsized insurance firm.

In the first study, Luthans and colleagues (2007), using CFA, found support for the proposed factor structure for the overall PsyCap measure, providing support for its use in the second study. Additionally, the first study demonstrated preliminary discriminant validity between PsyCap, conscientiousness, extraversion, and core self-

evaluations, as well as criterion validity between PsyCap and job satisfaction. In study two, PsyCap had a significant positive relationship with performance and job satisfaction in both the manufacturing company and insurance firm. Furthermore, overall PsyCap had a stronger relationship with performance and job satisfaction than each individual component of PsyCap among both groups (Luthans et al., 2007).

Continuing research on the relationship between PsyCap and employee outcomes, Luthans and colleagues (2008) examined the relationship between PsyCap, supportive organizational climate, job satisfaction, and commitment. Further, the study sought out whether PsyCap might mediate the relationship between supportive climate and employee performance. This study utilized participants from a previous study (Luthans et al., 2007), consisting of university management students and employees at a large tech-manufacturing company and insurance firm. However, the additional components of organizational commitment and supportive climate allowed for novel analysis by Luthans et al. (2008).

The findings first showed that PsyCap was significantly related to performance, satisfaction, and commitment. Supportive organizational climate was also shown to be significantly related to satisfaction and commitment, while supportive climate was not related to performance. However, the evidence showed that PsyCap was able to fully mediate the relationship between supportive climate and employee performance. This last finding was argued to suggest that organizations that elicit a more supportive climate might foster employees' PsyCap, which in turn positively impacts their performance (Luthans et al., 2008). With regard to the present study, this last finding provides theoretical and empirical support for my hypothesis of PsyCap's mediating role between

job resources and employee outcomes.

Given PsyCap's foundation in positive organizational behavior, researchers have strived to find a relationship between PsyCap and well-being, as well as the role of PsyCap in mitigating work related stress, cynicism, turnover intentions, and counterproductive work behaviors (CWBs) (Avey, Luthans, & Jensen, 2009; Avey et al., 2010; Avey, Luthans, & Youssef, 2010). Avey, Luthans, and Jensen (2009) hypothesized that PsyCap would be negatively related to employee symptoms of stress, intentions to quit, and that employee stress might mediate the relationship between PsyCap and turnover intentions.

A sample of working adults from various industries participated in the two part study, completing a survey of PsyCap at Time 1 and a survey of stress and intentions to quit at Time 2 two weeks later. The findings all provided support for Avey, Luthans, and Jensen's (2009) hypotheses. PsyCap at Time 1 was negatively related to employee symptoms of stress and intentions to quit at Time 2. In addition, conditions for partial mediation were found to support the hypothesis of employee stress symptoms mediating the relationship between PsyCap and turnover intentions (Avey, Luthans, & Jensen, 2009). The authors suggested that HR resources, such as training and development, may help enhance PsyCap, which in turn can mitigate feelings of stress and diminish intentions to quit (Avey, Luthans, & Jensen, 2009).

The extensive empirical support for the relationship between PsyCap and positive employee outcomes, such as job satisfaction and commitment (Avey, Luthans, & Jensen, 2009; Luthans et al., 2007; Luthans et al., 2008), has lent researchers to seek the relationship between PsyCap and negative employee outcomes. Avey, Luthans, and

Youssef (2010) examined the relationship between PsyCap, cynicism in the workplace, turnover intentions, CWBs, as well as organizational citizenship behaviors (OCBs). Hypothesizing that, PsyCap would be negatively related to cynicism, turnover intentions, and CWBs, and be positively related to OCBs.

Avey, Luthans, and Youssef's (2010) study utilized a sample of employees across various industries and job titles. Data was collected at two time points, between 7 and 14 days apart, with participants completing the measure of PsyCap at Time 1 and outcome measures of cynicism, turnover intentions, CWBs and OCBs at Time 2. The results illustrated support for the hypotheses, with PsyCap being negatively related to cynicism, intentions to quit, and CWBs, and positively related to both individual OCBs and organizational OCBs (Avey, Luthans, & Youssef, 2010). These findings contribute to the PsyCap literature, which has predominantly focused on positive employee outcomes, by demonstrating PsyCap's negative relationship to undesirable employee attitudes and behaviors.

Longitudinal research involving PsyCap has consistently utilized seven to fourteen days between measurements in order to control for common-method variance (Avey, Luthans, & Jensen, 2009; Avey, Luthans, & Youssef, 2010). However, less research has examined PsyCap with the intention to examine its effect over time. Avey, Luthans, Smith, and Palmer (2010) examined the relationship between PsyCap and two measures of well-being over time, using the Index of Psychological Well-Being (PWB) and General Health Questionnaire (GHQ). In a sample of employees, the analysis first showed that PsyCap at Time 1 was positively related to both measures of well-being at Time 1 and Time 2. Additionally, Time 1 PsyCap was significantly related to well-being

at Time 2 while controlling for Time 1 well-being (Index of PWB and GHQ) (Avey, Luthans, Smith, & Palmer, 2010).

The extensive research involving PsyCap has show it is related to both positive and negative work outcomes, and clearly demonstrates its viability to be considered a personal resource, and applied to the JD-R literature. A novel body of research suggests that savoring, a mindfulness-based strategy, may also function as a malleable resource, similar to PsyCap. As such, savoring may be associated with increased PsyCap and thus dampen the experience of burnout, particularly when few job resources are available.

CHAPTER FIVE

THE PRESENT STUDY: SAVORING AND THE JOB DEMANDS-RESOURCES MODEL

Personal resources have been described as individual traits that are related to one's resilience, including self-efficacy in the face of adversity and sense of mastery (Hobfoll et al., 2003). Savoring may function as malleable personal resource complimenting PsyCap, whereby savoring positive experiences may enhance resilience by adjusting an individual's hedonic baseline to be more receptive to experiencing pleasure and joy from positive events. Accordingly, savoring may contribute to the increase of other personal resources, such as PsyCap, both of which may enhance the benefits of job resources, including greater engagement and lower symptoms of burnout.

Building upon previous research involving employees (Camgoz, 2014; Hou et al., 2016), the present study asserts that those who are more able to savor positive experiences are likely to experience less work-related burnout when more job resources are available. In the context of the traditional JD-R model (Bakker et al., 2005), the experience of greater job demands may allow employees to be more receptive to positive experiences and eager to savor them rather than dwelling on the demands. Similarly, individuals may savor the presence of job resources or other positive experiences in and outside of work, which may hinder the impact of increasing job demands.

In the moderated-mediation model of the present study (Figures 1 – 4), I am first showing that personal resources (PsyCap) will mediate the job resources-engagement and burnout relationships. Similar to the findings by Xanthopoulou et al (2007), the benefits

of job resources on engagement and burnout may be explained through employees' personal resources.

Next, challenge demands are expected to magnify the relationships between job resources and engagement, as well as between personal resources and engagement, evidenced by previous findings by Bakker and Sanz-Vergel (2013). Employees may perceive challenge demands as opportunities for growth and development, thus bolstering the positive effect of job and personal resources on engagement. In contrast, challenge demands are expected to dampen the negative relationships between job resources and burnout, and personal resources and burnout, such that the negative relationships between job and personal resources and burnout will be weaker where there are more challenge demands. In addition, hindrance demands are expected to weaken the positive relationships between job resources and engagement, and personal resources and engagement; as well as dampen the negative relationships between job resources and burnout, and personal resources and burnout.

Incorporating savoring into the model, savoring is expected to strengthen the positive relationship between job resources and personal resources, as well as the positive relationship between job resources and engagement. Employees who savor more will have greater engagement when job and personal resources are higher. Savoring is also expected to strengthen the negative relationships between job resources and burnout and between personal resources and burnout, where employees are presumed to experience less symptoms of burnout when they savor more and have greater job and personal resources.

Finally, the present study proposes that the indirect positive relationship between job resources and engagement, mediated by personal resources, will be moderated by both savoring and challenge and hindrance demands. Employees' engagement is expected to be highest when they savor more and have more challenge demands, as opposed to hindrance demands. Similarly, symptoms of burnout among employees are expected to be lowest when employees savor more and have fewer challenge and hindrance demands, consistent with Tadic, Bakker, and Oerlemans (2015).

Hypotheses

In order to better understand the longitudinal relationships between savoring positive experiences, job demands, job resources, engagement and burnout, the following hypotheses were been proposed: hypotheses 1 through 5 are replicate prior JD-R research, while hypotheses 6 through 12 are novel for the present study.

Replication Hypotheses

H1a. Job resources at T1 will be positively related to engagement at T2

H1b. Job resources at T1 will be negatively related to burnout at T2

H2. Job resources at T1 will be positively related to personal resources at T1

H3a. Personal resources at T1 will be positively related to engagement at T2

H3b. Personal resources at T1 will be negatively related to burnout at T2

H4. Savoring at T1 will be positively related to personal resources at Time 1

H5a. Personal resources at T1 will mediate the relationship between job resources at T1 and engagement at T2

H5b. Personal resources at T1 will mediate the relationship between job resources at T1 and burnout at T2

Novel Hypotheses

H6a. Challenge demands at T1 will moderate the relationship between personal resources at T1 and engagement at T2, such that the positive relationship between personal resources and engagement will be stronger when challenge demands are high (vs low).

H6b. Challenge demands at T1 will moderate the relationship between job resources at T1 and engagement at T2, such that the positive relationship between job resources and engagement will be stronger when challenge demands are high (vs low).

H6c. Challenge demands at T1 will moderate the indirect relationship between job resources at T1 and engagement at T2 through personal resources at T1, such that the positive relationship between job resources and engagement through personal resources will be stronger when challenge demands are high (vs low).

H7a. Challenge demands at T1 will moderate the relationship between personal resources at T1 and burnout at T2, such that the negative relationship between personal resources and burnout will be stronger when challenge demands are low (vs high).

H7b. Challenge demands at T1 will moderate the relationship between job resources at T1 and burnout at T2, such that the negative relationship between job resources and burnout will be stronger when challenge demands are low (vs high).

H7c. Challenge demands at T1 will moderate the indirect relationship between job resources at T1 and burnout at T2 through personal resources at T1, such that

the negative relationship between job resources and burnout through personal resources will be stronger when challenge demands are low (vs high).

H8a. Hindrance demands at T1 will moderate the relationship between personal resources at T1 and engagement at T2, such that the positive relationship between personal resources and engagement will be stronger when hindrance demands are low (vs high).

H8b. Hindrance demands at T1 will moderate the relationship between job resources at T1 and engagement at T2, such that the positive relationship between job resources and engagement will be stronger when hindrance demands are low (vs high).

H8c. Hindrance demands at T1 will moderate the indirect relationship between job resources at T1 and engagement at T2 through personal resources at T1, such that the positive relationship between job resources and engagement through personal resources will be stronger when hindrance demands are low (vs high).

H9a. Hindrance demands at T1 will moderate the relationship between personal resources at T1 and burnout at T2, such that the negative relationship between personal resources and burnout will be stronger when hindrance demands are low (vs high).

H9b. Hindrance demands at T1 will moderate the relationship between job resources at T1 and burnout at T2, such that the negative relationship between job resources and burnout will be stronger when hindrance demands are low (vs high).

H9c. Hindrance demands at T1 will moderate the indirect relationship between job resources at T1 and burnout at T2 through personal resources at T1, such that the negative relationship between job resources and burnout through personal resources will be stronger when hindrance demands are low (vs high).

H10a. Savoring at T1 will moderate the relationship between job resources at T1 and personal resources at T1, such that the positive relationship between job resources and personal resources will be stronger when savoring is high (vs low)

H10b. Savoring at T1 will moderate the relationship between job resources at T1 and engagement at T2, such that the positive relationship between job resources and engagement will be stronger with savoring is high (vs low)

H10c. Savoring at T1 will moderate the indirect relationship between job resources at T1 and engagement at T2 through personal resources at T1, such that the positive relationship between job resources and engagement through personal resources will be stronger when savoring is high (vs low).

H10d. Savoring at T1 will moderate the relationship between job resources at T1 and burnout at T2, such that the negative relationship between job resources and burnout will be stronger when savoring is high (vs low)

H10e. Savoring at T1 will moderate the indirect relationship between job resources at T1 and burnout at T2 through personal resources at T1, such that the negative relationship between job resources and burnout through personal resources will be stronger when savoring is high (vs low).

H11a. The indirect relationship between job resources and engagement through personal resources will be moderated by savoring and challenge demands, with

the positive relationship between job resources and engagement being strongest when savoring and challenge demands are high.

H11b. The indirect relationship between job resources and engagement through personal resources will be moderated by savoring and hindrance demands, with the positive relationship between job resources and engagement being strongest when savoring is high and hindrance demands are low.

H12a. The indirect relationship between job resources and burnout through personal resources will be moderated by savoring and challenge demands, with the negative relationship between job resources and burnout being strongest when savoring is high and challenge demands are low.

H12b. The indirect relationship between job resources and burnout through personal resources will be moderated by savoring and hindrance demands, with the negative relationship between job resources and burnout being strongest when savoring is high and hindrance demands are low.

CHAPTER SIX

METHOD

The present study was conducted using Amazon's Mechanical Turk (MTurk; www.mturk.com/), an online crowdsourcing tool that compensates participants for completing online surveys. MTurk has been shown to provide valid, reliable, and generalizable data (Buhrmester et al., 2011; Cheung, Burns, Sinclair & Sliter, 2016; Horton et al., 2011; Mason & Suri, 2011). Buhrmester and colleagues (2011) found that MTurk samples often provided equally or more diverse participants compared to traditional sampling methods, and although participation rates in MTurk are affected by compensation, the quality of data should not be compromised if reasonable compensation is provided.

Cheung et al. (2016) raised several methodological concerns related to the use of MTurk samples but offers recommendations for addressing these issues. For example, participants may be inattentive and respond to items without following study instructions or misunderstanding items. In addition, the researcher may inadvertently reveal how the participants ought to respond through desirable responses, influencing participant responses to survey items. Although these challenges may threaten the validity of the study, by taking particular precautions, the researcher can diminish participant inattentiveness and influencing responses by including attention check items and avoid indicating the unique aim of the study (Cheung et al., 2016). Additional recommendations for enhancing the validity of MTurk samples include, aiming to gather participants who are as close to the target population as possible, including potential

confounds in the data analysis, and controlling for method bias using time lagged designs, to name a few (Cheung et al., 2016).

Participants and Procedure

Participants for the present study were recruited via MTurk, and were selected based on the following criteria: at least 18 years of age, employed, work at least 30 hours a week, and that MTurk is not their primary job. Participants were also required to have an approval rate of at least 90% based on past participation in MTurk studies. The survey included four embedded attention check items and two additional written response attention check items in order to ensure participants respond thoughtfully to provide improved data quality. A description of the attention check items may be found below in the measures section and in the Appendices.

Data collection occurred at two time points, approximately 30 days apart. Participants who met the criteria and completed the survey at Time 1 received a payment of \$1.75 credited to their MTurk account. The online survey administered at both Time 1 and Time 2 contained measures assessing the participant's experience of challenge and hindrance job demands, job resources, engagement, burnout, PsyCap, and savoring (see Appendices), which the participants completed in about 20 minutes on average. Of the 200 participants to complete the Time 1 measures, two participants were removed for failing to meet the attention check criteria, such as reporting that they could not honestly reply to the survey or incorrectly responding to the embedded attention check items. Three participants left the survey prior to completing it. Therefore, the final sample at Time 1 consisted of 195 participants.

One month following, the 195 participants who completed the Time 1 survey were emailed and invited to participate in a second round of data collection. Participants who completed the survey at Time 2 received a payment of \$1.75 credited to their M-Turk account. Of the 195 participants emailed, 103 completed the Time 2 survey. However, 9 participants were removed due to missing MTurk IDs so their responses could not be matched to Time 1. Therefore, the matched sample consisted of 94 participants. Of the 94 participants at Time 2, none failed the attention check items, nor had they reported a significant work event.

Demographics

The demographics first presented are those of the overall sample at Time 1, followed by the matched sample including participants who had taken both the Time 1 and Time 2 surveys. A chi-squares test of independence of the demographics demonstrated that the matched sample that completed both the Time 1 and Time 2 did not significantly differ in gender, marital status, degree, or tenure in their current job, compared to the Time 1 sample that did not complete the survey at Time 2. There was a significant difference in ethnicity ($\chi^2 (5) = 13.75, p < .05$) and industry ($\chi^2 (5) = 25.27, p < .01$) between the matched and Time 1 only sample. Specifically, the Time 1 only sample had a higher proportion of participants who identified as Black or African American and who reported working in manufacturing, and lower proportion of participants who identified as White and in service jobs.

The participants at Time 1 consisted primarily of men (65%) compared to women (35%), with an average age of 33 years old ($SD = 8.56$). The majority of the participants were white (74%), followed by Black/African American (11%), Asian/Pacific Islander

(7%), Hispanic or Latino (6%), with the remaining participants identifying as Native American or American Indian (2%). In terms of marital or the relationship status of the participants, many were married (40%) or single (37%), the remainder were either in a relationship but never married (19%) or other status (4%). The majority of the participants reported their highest level of education as being a Bachelors degree (62%), followed by a High School degree (24%), Masters degree (12%), Doctorate (2%), or other (1%). Participants reported working in a broad range of industries, including service (31%), finance/insurance/real estate (15%), retail trade (14%), manufacturing (12%), public administration (5%), wholesale trade (3%), construction (3%). The remaining participants (16%) specified other occupations not listed, such as publishing and information technology. The majority of participants had been at their current job for 2 to 5 years (41%) or for 5 to 10 years (30%). Many had also been at their current job for over 10 years (12%), or 1 to 2 years (10%), with the remaining having only been with their current job for less than 1 year (6%).

The matched participants consisted primarily of men (63%) compared to women (37%), with an average age of 34 years old ($SD = 8.76$). The majority of the participants were white (83%), followed by Asian/Pacific Islander (8.5%), Black/African American (4.3%), and Hispanic or Latino (4.3%). In terms of the relationship status of the participants, the largest categories were single (39.4%) or married (33%), followed by in a relationship but never married (21.3%) or other status (6%). The majority of the participants reported their highest level of education as being a Bachelors degree (61%), followed by a High School degree (24%), or a Masters degree (15%).

Participants in the matched sample reported working in a broad range of industries including service (37%), finance/insurance/real estate (15%), retail trade (15%), manufacturing (5%), wholesale trade (5%), construction (1%), and public administration (1%). The remaining participants (20%) specified other occupations not listed, such as publishing and information technology. The majority of participants had been at their current job for 5 to 10 years (32%) or for 2 to 5 years (31%). Many had also been at their current job for over 10 years (17%), or 1 to 2 years (12%), with the remaining having only been with their current job for less than 1 year (8%).

Measures

Challenge and Hindrance Demands

Challenge and hindrance demands at Time 1 were assessed using the measure from Zhang, LePine, Buckman, and Wei (2014). Challenge demands were measured using 6 items measuring workload, time pressure, task complexity, and responsibility. Hindrance demands were assessed using 7-items measuring role ambiguity, role and interpersonal conflict, politics, and hassles. Challenge and hindrance demands were measured using a 5-point likert scale, from 1 “Never” to 5 “Almost always.” The reliability, from previous research, for the measure of challenge demands was 0.82, and the reliability for the measure of hindrance demands was 0.88 (Zhang, LePine, Buckman, & Wei, 2014). In the present study, Cronbach’s alpha for challenge demands was .82, and .83 for hindrance demands using the matched sample.

Job Resources

Job resources measured at Time 1 included five job resources from the Questionnaire on the Experience and Evaluation of Work (QEEW), adapted into English

(Van Veldhoven & Meijman, 1994). The measure included: 11-items assessing autonomy, 9-items for social support, 7-items for performance feedback, 4-items for possibilities for professional development. In addition, Time 1 job resources included a 7-item measure of leader-member exchange from LeBlanc (1994). Job resources were measured using a 5-point likert scale, from 1 “Never” to 5 “Almost always.” Previous research using the QEEW has shown the total measure to have a reliability of 0.87 (Boomaars, Yorks, & Shetty, 2018), and each subscale having a reliability ranging from 0.79 to 0.95 (Winwood & Lushington, 2006). In the present study, a job resources total score was calculated by aggregating the mean of each subscale. The reliability for the complete measure of job resources was 0.95 at Time 1 using the matched sample.

Personal Resources

Psychological capital was assessed at both Time 1 and Time 2 using the Psychological Capital Questionnaire (PCQ; Luthans, Youssef & Avolio, 2007). Items on the PCQ are used to measure four psychological resources: hope, optimism, resilience, and self-efficacy. PsyCap was measured using a 7-point likert scale, from 1 “Strongly disagree” to 7 “Strongly agree.” The mean reliability of the PCQ, according to Avey, Reichard, Luthans, and Mhatre’s (2011) meta-analytic review, was 0.88. Furthermore, the PCQ has demonstrated good content validity, convergent validity, and discriminant validity among U.S., South African, and Chinese samples (Görgens-Ekermans, & Herbert, 2013; Liu, Chang, Fu, Wang, & Wang, 2012; Luthans, Avolio, Avey, & Norman, 2007; Luthans, Norman, Avolio, & Avey, 2008;). Cronbach’s alpha for personal resources measured at Time 1 using the matched sample was .95. In the present study, a

PsyCap total score was calculated by aggregating the mean of each subscale as has been done in previous research (Avey et al., 2010; Luthans et al., 2008).

Burnout

Burnout was assessed at both Time 1 and Time 2 with the Maslach Burnout Inventory–General Survey (MBI-GS; Schaufeli et al., 1996). The measure includes three subscales assessing exhaustion with 5-items, cynicism with 4-items, and professional efficacy with 6-items. Burnout was measured using a 5-point likert scale, from 1 “Never” to 5 “Almost always.” High scores on exhaustion and cynicism, and a low score on professional efficacy, was indicative of burnout. Cronbach’s alpha for exhaustion ranges from 0.84 to 0.90, for cynicism ranges from 0.70 to 0.84, and for professional efficacy ranges from 0.70 to 0.78 (Bakker, Demerouti, & Schaufeli, 2002). The MBI-GS has shown to have construct validity, and factorial validity among Japanese and Dutch employees (Bakker, Demerouti, & Schaufeli, 2002; Schutte, Toppinen, Kalimo, & Schaufeli, 2000; Taris, Schreurs, & Schaufeli, 1999). Overall burnout was measured by calculating a total score from the three subscales, and had a reliability of .94 at Time 2 using the matched sample.

Engagement

Work engagement was assessed at both Time 1 and Time 2 using the Utrecht Work Engagement Scale-9 (Schaufeli, Bakker, & Salanova, 2006). The measure includes three subscales measuring vigor with 3-items, 3-items for dedication, and 3-items for absorption. Engagement was measured using a 5-point likert scale, from 1 “Never” to 5 “Almost always.” Cronbach’s alpha of the UWES-9 varied from 0.81 to 0.85 for vigor, from 0.83 to 0.87 for dedication, and from 0.75 to 0.83 for absorption

(Seppälä et al., 2009). The UWES-9 has been reported as having strong construct validity, as well as factorial validity cross-nationally (Schaufeli, Bakker, & Salanova, 2006; Schaufeli, Salanova, González-Romá, & Bakker, 2002; Seppälä et al., 2009). Overall engagement was measured by calculating a total score from the three subscales, and had a reliability of .95 at Time 2 using the matched sample.

Savoring

To assess savoring beliefs, the 24-item Savoring Beliefs Inventory (SBI; Bryant, 2003) was used at both Time 1 and Time 2, which includes three subscales assessing savoring the moment, savoring through anticipation, and savoring through reminiscence. Example items included, “I can make myself feel good by imagining what a happy time that is about to happen will be like,” and “It’s easy for me to enjoy myself when I want to.” Savoring beliefs were measured using a 7-point likert scale, from 1 “Strongly disagree” to 7 “Strongly agree.” The SBI has demonstrated high reliability for the overall measure, with the alpha coefficient ranging from 0.88 to 0.94, and all subscales also showing high reliability ($\alpha > 0.80$). Furthermore, previous literature has provided supportive evidence of the SBI’s convergent, discriminant, construct, and predictive validity (Bryant, 2003; Eisner, Johnson, & Carver 2009). In the present study, a savoring total score was calculated by aggregating the mean of each subscale, and had a reliability of .95 at Time 1 using the matched sample.

Attention checks

Six attention check items were included at both time points to ensure data quality. Four of these items were embedded within the sub-scales. Sample items include “Please select “Agree”” and “Please select “Somewhat descriptive of me.”” Two additional text

response items were included, “What do you think this survey is about?” and “How honestly were you able to respond to these questions?” Participants who could not answer or answered these items incorrectly were excluded from the final data analyses.

CHAPTER SEVEN

RESULTS

Factor Structures

Confirmatory factor analyses (CFA) were conducted using EQS statistical software (Bentler, 2006) to provide support for the expected factor structure on the Time 1 challenge and hindrance demands scale using a two-factor model, a five-factor model with positively and negatively anchored methods factors on the SBI (Bryant 2003) at Time 1, and a four-factor model to verify the four subscales on the Time 1 PsyCap measure. To distinguish the overall savoring measure from the overall PsyCap measure at Time 1, a global one-factor model for savoring and a global one-factor model for PsyCap were used. Model fit was assessed using the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA) to determine the relative and absolute fit, respectively. According to Hu and Bentler (1999), more stringent levels of good fit are considered a CFI greater than .95, RMSEA lower than .06. However, previous research has offered less conservative parameters, suggesting that a CFI greater than .90 and an RMSEA lower than .80 indicative of adequate fit (MacCallum, Browne, & Sugawara, 1996). Fit is often assessed using Chi-square, however, sample size can greatly affect its usefulness (Marsh, Hau, & Wen, 2004). As such, the chi-square was not used as an indicator of overall model fit, however, the Satorra-Bentler Chi-square difference test is reported (Satorra & Bentler, 2001).

First, the two-factor model demonstrating two separate dimensions of challenge and hindrance demands at Time 1 showed acceptable fit: $SB \chi^2 (66) = 148.45, p < .001$; CFI = .92; RMSEA = .08, 90% CI (.06, .10). In the development of the SBI, Bryant

(2003) proposed the use of a five-factor model, with positively and negatively anchored methods factors to accommodate the positively and negatively worded items. In the present study, at Time 1, the five-factor model demonstrated near perfect fit based on the CFI and RMSEA, while a significant chi-square did not indicate good fit: $SB \chi^2 (210) = 196.73, p < .001$; CFI = 1.0; RMSEA = .00, 90% CI (.0, .02). Note that the “perfect fit” of five-factor model may be the result of a rounding error for the Goodness of Fit Summary for Method = Robust in EQS. The four-factor model for PsyCap at Time 1 also showed acceptable fit using the CFI and RMSEA: $SB \chi^2 (250) = 427.64, p < .001$; CFI = .91; RMSEA = .06, 90% CI (.05, .07); although the chi-square was significant it does not indicate good fit.

To determine whether the overall measure of savoring was empirically distinct from the overall measure of PsyCap at Time 1, a CFA was conducted using a second-order factor model of savoring that included the positively and negatively anchored methods factors, and a second-order factor model of PsyCap. This model did not have acceptable fit: $SB \chi^2 (1075) = 1976.79, p < .001$; CFI = .85; RMSEA = .07, 90% CI (.05, .07). An Exploratory Factor Analysis was therefore conducted to examine the factor loadings of the Time 1 savoring and PsyCap items.

A maximum likelihood factor analysis using all the Time 1 savoring and PsyCap items, using promax oblique rotation, was conducted, with three factors explaining 53% of the variance. An oblique rotation provided the best factor structure. Items were considered to load on a given factor when they had a loading of .40 or greater, and they did not have a loading of .40 on two or more factors. The factor labels that suited the factor loadings were a savoring factor, PsyCap factor, and a negative anchored methods

factor onto which negatively worded items loaded. The positively worded items from the savoring measure all had loadings greater than .40 on the savoring factor, while the negatively worded items from the savoring measure had a loading of .70 or higher on the negatively anchored methods factor; no cross loadings were found among the savoring items. The emergence of a negatively anchored methods factor prompted a comparative assessment of the correlations using full SBI versus a modified measure of the SBI that included only the positively worded items. In the larger Time 1 only sample, the correlations between the full SBI and the other variables and the modified SBI and the other variables were similar in strength and magnitude with the exception of challenge and hindrance demands (Table 1). Because of the largely similar correlations, I was hesitant to remove a large number of items from the well-established SBI measure.

Items from the self-efficacy, hope, and resilience subscales from the PsyCap measure had loadings greater than .40 on the PsyCap factor, with one negatively worded resilience item cross loading onto the negatively anchored methods factor. It deserves noting that four items from the optimism subscale of the PsyCap measure had loadings of .50 or greater on the savoring factor, and 2 negatively worded items loading onto the negative factor. The loadings of the optimism subscale items onto the savoring factor thusly provided evidence to remove the optimism subscale from the overall measure of PsyCap before proceeding with further analyses.

The subsequent sections present the descriptives, correlations, and results of the mediation and moderation analyses, first with the matched sample including participants who completed both the Time 1 and Time 2 surveys; followed by the results using the larger sample with participants who only completed the Time 1 survey.

Descriptive Statistics, Reliability, and Correlations Matched Sample

Table 2 presents the descriptive statistics, reliability estimates, and correlation coefficients between the Time 1 and Time 2 measures using the matched sample ($N = 94$). The mean rating for Challenge Demands was above the mid-point ($M = 3.57$, $SD = .79$), as were the endorsement of Job Resources ($M = 3.41$, $SD = .69$); while Hindrance Demands were lower on average ($M = 2.50$, $SD = .63$). PsyCap and Savoring were also higher on average ($M = 5.22$, $SD = 1.13$; $M = 5.14$, $SD = 1.11$), respectively. Mean ratings of Engagement and Burnout at Time 2 were near the midpoint ($M = 3.32$, $SD = .95$; $M = 3.06$, $SD = .90$), respectively.

Each measure demonstrated high levels of reliability. Cronbach's alpha for Challenge Demands at Time 1 was .82, for Hindrance Demands at Time 1 Cronbach's alpha was .83. Cronbach's alpha for Time 1 Job Resources, Savoring, PsyCap (not including the optimism subscale), and Engagement at Time 2 was .95, and .94 for Burnout at Time 2. The reliability analyses showed that no single item needed to be removed to improve the reliability of the measures used.

Correlations were used to assess the linear relationship between the Time 1 predictor variables, job resources, PsyCap, savoring, and challenge and hindrance demands, and the Time 2 outcomes variables including engagement and burnout. Job resources at Time 1 was positively related to engagement at Time 2 ($r = .74$, $p < .01$), job resources at Time 1 was also negatively related to burnout at Time 2 ($r = -.73$, $p < .01$), supporting hypotheses 1a and 1b, respectively. Time 1 job and personal resources (PsyCap) were positively related ($r = .73$, $p < .01$), supporting hypothesis 2. Personal resources at Time 1 was positively related to engagement at Time 2 ($r = .68$, $p < .01$), and

negatively related to burnout at Time 2 ($r = -.68, p < .01$), supporting hypotheses 3a and 3b, respectively. Finally, Time 1 savoring was positively related to Time 1 personal resources ($r = .67, p < .01$), supporting hypothesis 4.

Test of Mediation Between Job Resources T1 and Engagement and Burnout T2 via Personal Resources T1

To test hypotheses 5a and 5b, mediation analyses were conducted using Hayes (2013) PROCESS version 3.2 macro, whereby, personal resources at Time 1 (M) was proposed to explain the relationship between job resources at Time 1 (X) and engagement and burnout at Time 2 (Y). Job resources at Time 1 was expected to be positively related to personal resources at Time 1 (a), which would thereafter be positively related to engagement and negatively related to burnout at Time 2 (b); thus demonstrating the indirect effect (ab) of job resources at Time 1 on engagement (burnout) at Time 2, through Time 1 personal resources. The statistical significance of the indirect effect was assessed using a bootstrapping estimation approach with 5,000 bootstrap samples. Significance of the indirect effect was based on whether zero was bracketed between the lower bound and upper bound of the confidence interval.

First, the relationship between Time 1 job resources and Time 2 engagement, mediated by Time 1 personal resources was assessed. The results of the simple mediation analysis demonstrated that job resources at Time 1 was related to more personal resources ($a = 1.21, p < .01$), and greater personal resources were subsequently related to greater engagement ($b = .23, p < .01$); thereby, job resources at Time 1 was indirectly related to engagement at Time 2, through personal resources at Time 1 ($ab = .30, 95\%$ BootstrapCI [.051, .556]). Moreover, Time 1 job resources was related to greater

engagement at Time 2, taking into account Time 1 personal resources ($c' = .73, p < .01$). The effect size for the indirect effect accounted for 28.94% ($a*b / c$) of the total effect ($R^2 = .55, f^2 = 1.21$). Thus, supporting hypothesis 5a.

Next, the relationship between Time 1 job resources and Time 2 burnout, mediated by Time 1 personal resources was assessed. The results of the simple mediation analysis demonstrated that job resources at Time 1 was related to more personal resources ($a = 1.21, p < .01$), and greater personal resources were subsequently related to less burnout ($b = -.23, p < .01$); thereby, job resources at Time 1 was indirectly related to burnout at Time 2, through personal resources at Time 1 ($ab = -.31, 95\%$ BootstrapCI [-.590, -.120]). Moreover, Time 1 job resources was related to less burnout at Time 2, taking into account Time 1 personal resources ($c' = -.65, p < .01$). The effect size for the indirect effect accounted for 32.55% ($a*b / c$) of the total effect ($R^2 = .53, f^2 = 1.21$). Thus supporting hypothesis 5b.

Moderated-Mediation Analysis with the Matched Time 1-Time 2 Sample

Hayes (2013) PROCESS Model 15 was used to examine whether the direct and indirect effect of Time 1 job resources predicting Time 2 engagement, through Time 1 personal resources, was conditional to challenge demands at Time 1 (Hypotheses 6a, Hypothesis 6b, & Hypothesis 6c). PROCESS automatically mean-centered the variables for regression analysis. Time 1 job resources was found to predict engagement at Time 2, $B = .77, SE = .14, p < .001$. The mediator, Time 1 personal resources, was also shown to have a significant direct effect on Time 2 engagement, $B = .22, SE = .09, p < .05$. However, Time 1 challenge demands were not significantly related to Time 2 engagement. Furthermore, the interaction between Time 1 job resources and challenge

demands did not significantly predict Time 2 engagement, nor did the interaction between Time 1 personal resources and challenge demands predicting Time 2 engagement. Therefore, hypotheses 6a and 6b were not supported. The index of moderated-mediation with a 95% bootstrap confidence interval was between -.418 and .179, and because the confidence interval included zero, I could not infer that the indirect effect of Time 1 job resources predicting Time 2 engagement through Time 1 personal resources varied as a function of Time 1 challenge demands. Thus, hypothesis 6c was not supported.

Next, a test of the moderation of the direct and indirect effect of Time 1 job resources predicting Time 2 burnout, conditional on Time 1 challenge demands, was conducted (Hypotheses 7a & Hypothesis 7b). Time 1 job resources was found to predict burnout at Time 2, $B = -.65$, $SE = .13$, $p < .001$. The mediator, Time 1 personal resources, was also shown to have a significant direct effect on Time 2 burnout, $B = -.30$, $SE = .08$, $p < .001$. Time 1 challenge demands was not significantly related to Time 2 burnout. The interaction between Time 1 job resources and challenge demands, nor the interaction between Time 1 personal resources and challenge demands, predicted burnout at Time 2. Therefore, hypotheses 7a and 7b were not supported. The index of moderated-mediation with a 95% bootstrap confidence interval was between -.405 and .231, and because the confidence interval straddled zero, we could not claim that the indirect effect of Time 1 job resources predicting Time 2 burnout through Time 1 personal resources varied as a function of Time 1 challenge demands. Thus, hypothesis 7c was not supported.

Moderated-mediation of the direct and indirect effects conditional on Time 1 hindrance demands predicting engagement at Time 2 (Hypotheses 8a & Hypothesis 8b)

was then assessed. Time 1 job resources predicted engagement at Time 2, $B = .75$, $SE = .14$, $p < .001$. Time 1 personal resources, had a significant direct effect on Time 2 engagement, $B = .26$, $SE = .09$, $p < .01$. Time 1 hindrance demands was not significantly related to Time 2 engagement. The interaction between Time 1 job resources and hindrance demands and the interaction between Time 1 personal resources and hindrance demands did not significantly predict engagement at Time 2. Additionally, the index of moderated-mediation with a 95% bootstrap confidence interval was between $-.518$ and $.267$, and because the confidence interval straddled zero, I could not claim that the indirect effect of Time 1 job resources predicting Time 2 engagement through Time 1 personal resources varied as a function of Time 1 hindrance demands. Therefore, hypotheses 8a, 8b, and 8c were not supported.

Next, a test of the moderation of the direct and indirect effects conditional on Time 1 hindrance demands to predict Time 2 burnout was conducted (Hypotheses 9a & Hypothesis 9b). Mean-centered Time 1 job resources was found to predict burnout at Time 2, $B = -.58$, $SE = .13$, $p < .001$. The mediator, Time 1 personal resources, was also shown to have a significant direct effect on Time 2 burnout, $B = -.24$, $SE = .08$, $p < .01$. Time 1 hindrance demands was not significantly related to Time 2 burnout. The interaction between Time 1 job resources and hindrance demands nor the interaction between Time 1 personal resources and hindrance demands predicted burnout at Time 2. Therefore, hypotheses 9a and 9b were not supported. The index of moderated-mediation with a 95% bootstrap confidence interval was between $-.191$ and $.564$, and because the confidence interval straddled zero, I could not claim that the indirect effect of Time 1 job

resources predicting Time 2 burnout through Time 1 personal resources varied as a function of Time 1 hindrance demands. Similarly, hypothesis 9c was not supported.

Hayes (2013) PROCESS Model 8 was then used to test the moderation effect of Time 1 savoring on the direct and indirect relationship between Time 1 job resources and Time 1 personal resources predicting Time 2 engagement (Hypothesis 10a & 10b). First, Time 1 savoring was expected to moderate the relationship between Time 1 job and personal resources (Hypothesis 10a). Time 1 job resources and Time 1 savoring were significantly related Time 1 personal resources ($B = .85, SE = .14, p < .001$; $B = .37, SE = .08, p < .001$), respectively. However, the interaction between Time 1 job resources and savoring did not significantly predict personal resources at Time 1, hypothesis 10a was not supported.

Job resources at Time 1 was significantly related to engagement at Time 2, $B = .66, SE = .14, p < .001$, and Time 1 personal resources was significantly to engagement at Time 2, $B = .018, SE = .09, p < .05$. Time 1 savoring was not significantly related to Time 2 engagement, nor was the interaction between Time 1 job resources and savoring significantly predictive of engagement at Time 2. Thus, Hypothesis 10b was not supported. In addition, the index of moderated-mediation of Time 1 savoring with a 95% bootstrap confidence interval was between $-.053$ and $.085$. Therefore, because the confidence interval straddled zero, I could not claim that the indirect effect of Time 1 job resources predicting Time 2 engagement through Time 1 personal resources varied as a function of Time 1 savoring. Hypothesis 10c was not supported.

Hypothesis 10d, predicted that Time 1 savoring would moderate the direct and indirect effect of Time 1 job resources predicting Time 2 burnout, through Time 1

personal resources. Job resources at Time 1 was significantly related to burnout at Time 2, $B = -.50$, $SE = .13$, $p < .001$, and Time 1 savoring was significantly related to burnout at Time 2, $B = -.28$, $SE = .07$, $p < .001$. Time 1 personal resources was not significantly related to burnout at Time 2. The interaction between Time 1 job resources and savoring was significantly related to burnout at Time 2, $B = -.21$, $SE = .10$, $p < .05$, yielding a t statistic of the direct effect $t(89) = -2.17$, $p < .05$. Demonstrating that the negative relationship between Time 1 job resources and Time 2 burnout was stronger at high levels of Time 1 savoring compared to lower levels of Time 1 savoring, providing support for hypothesis 10d. However, Time 1 savoring did not significantly moderate the indirect effect of Time 1 job resources predicting Time 2 burnout through Time 1 personal resources (95% BootstrapCI [-.051, .039]), therefore hypothesis 10e was not supported. Figure 2 provides a model of the significant effects.

Tests of simple slopes were conducted to interpret the interaction between Time 1 job resources and savoring as a predictor of burnout at Time 2, using guidelines developed by Cohen et al. (2003). The simple slopes were estimated at high (+1 *SD*), medium (mean), and low (-1 *SD*) values of savoring. The estimated simple slopes showed there was a significant negative relationship between Time 1 job resources and Time 2 burnout at medium savoring, $t(89) = -3.99$, $p < .001$, and high savoring, $t(89) = -5.06$, $p < .001$. However, at low levels of savoring, there was a non-significant relationship between Time 1 job resources and burnout at Time 2, $t(89) = -1.38$, $p = .17$. As seen in Figure 8, employees with high and medium savoring at Time 1 had a significant decrease in symptoms of burnout at Time 2 as Time 1 job resources increased.

Finally, I examined whether the indirect effect of Time 1 job resources predicting Time 2 engagement through Time 1 personal resources was moderated by both Time 1 savoring and challenge demands. First, Time 1 job resources and savoring had significant direct effects on the mediator Time 1 personal resources ($B = .84, SE = .14, p < .001$; $B = .37, SE = .08, p < .001$), respectively. However, Time 1 savoring did not interact with job resources to predict personal resources at Time 1. Next, job resources at Time 1 was found to have a direct effect on Time 2 engagement, $B = .69, SE = .15, p < .001$. However, Time 1 personal resources did not have a significant direct effect on Time 2 engagement, thus support for mediation was not found. Additionally, Time 1 savoring and challenge demands did not have significant direct effects, nor was there a significant interaction between the independent variables predicting Time 2 engagement. The indirect effect between Time 1 job resources and Time 2 engagement through personal resources at Time 1 was not significant. The lack of indirect effects and significant interactions, therefore, showed no support for hypothesis 11a.

Next, the indirect effect of Time 1 job resources predicting Time 2 engagement through Time 1 personal resources was moderated by both Time 1 savoring and hindrance demands was tested. First, Time 1 job resources and savoring had significant direct effects on the mediator Time 1 personal resources ($B = .85, SE = .14, p < .001$; $B = .37, SE = .08, p < .001$), respectively. Time 1 job resources and personal resources had a significant direct effect on Time 2 engagement ($B = .69, SE = .15, p < .001$; $B = .19, SE = .10, p < .05$, respectively). Time 1 job resources and savoring did not significantly interact to predict Time 1 personal resources. In addition, Time 1 savoring and hindrance demands did not have significant direct effects on Time 2 engagement. There was no

significant interaction between Time 1 job resources, personal resources, savoring, and hindrance demands predicting Time 2 engagement. Further, according to the index of moderated-mediation, there was no evidence of moderated-mediation of the indirect effect; therefore, hypotheses 11b was not supported.

The indirect effect of Time 1 job resources predicting Time 2 burnout through Time 1 personal resources, moderated by both Time 1 savoring and challenge demands, was examined next. First, Time 1 job resources and savoring had significant direct effects on the mediator Time 1 personal resources ($B = .85, SE = .14, p < .001$; $B = .37, SE = .08, p < .001$, respectively). However, there was not a significant interaction between Time 1 job resources and savoring predicting Time 1 personal resources. Time 1 job resources had a significant direct effect on Time 2 burnout, $B = -.50, SE = .13, p < .001$, respectively. Savoring at Time 1 did have a significant direct effect on burnout at Time 2, $B = -.26, SE = .07, p < .001$. Time 1 personal resources and challenge demands did not have significant direct effects on Time 2 burnout.

In addition, Time 1 job resources and savoring were found to significantly interact to predict burnout at Time 2, $B = -.22, SE = .10, p < .05$, yielding an t statistic of $t(86) = -2.14, p < .05$; indicating that the negative relationship between Time 1 job resources and Time 2 burnout was stronger at high levels of Time 1 savoring compared to lower levels of Time 1 savoring. However, the interaction between Time 1 job resources and savoring predicting Time 2 burnout did not vary across levels of challenge demands at Time 1. Further, Time 1 job resources and challenge demands did not significantly interact to predict Time 2 burnout. There was also no significant index of moderated-mediation between the direct effect of Time 1 job resources predicting Time 2 burnout through

personal resources at Time 1, conditional on Time 1 savoring and challenge demands, therefore hypothesis 12a was not supported.

Tests of simple slopes were conducted to interpret the interaction between Time 1 job resources and savoring as a predictor of burnout at Time 2, using guidelines developed by Cohen et al. (2003). The simple slopes were estimated at high (+1 *SD*), medium (mean), and low (-1 *SD*) values of savoring. The following estimated simple slopes show there was a significant positive relationship between Time 1 job resources and Time 2 burnout at medium savoring, $t(86) = -3.56, p < .001$, and high savoring, $t(86) = -4.70, p < .001$. However, at low levels of savoring, there was a non-significant relationship between Time 1 job resources and burnout at Time 2, $t(86) = -1.40, p = .16$. The simple slopes did not significantly differ across levels of Time 1 challenge demands. As seen in Figure 9, employees with high and medium savoring at Time 1 had a significant decrease in symptoms of burnout at Time 2 as Time 1 job resources increased, which did not significantly differ across levels of challenge demands at Time 1.

Lastly, the indirect effect of Time 1 job resources predicting Time 2 burnout through Time 1 personal resources moderated by both Time 1 savoring and hindrance demands was tested. The direct effect of Time 1 job resources and savoring were significantly related to Time 1 personal resources ($B = .85, SE = .14, p < .001$; $B = .37, SE = .08, p < .001$, respectively). Again, Time 1 job resources and savoring did not interact to predict Time 1 personal resources. In the full model, Time 1 job resources and savoring had significant direct effects on burnout at Time 2 ($B = -.49, SE = .13, p < .001$; $B = -.26, SE = .08, p < .001$, respectively). However, neither Time 1 personal resources nor hindrance demands had a significant direct effect on Time 2 burnout. As such, the

indirect effect between Time 1 job resources and Time 2 burnout through personal resources at Time 1 was not significant. In addition, the interactions between the Time 1 predictors were not significantly related to Time 2 burnout. Thus, the index of moderated-mediation was not significant so hypotheses 12b was not supported.

The lack of significant interactions direct effects and interactions were likely due to the small matched sample size ($N = 94$) and insufficient power to detect the small effect size. Accordingly, additional power analyses revealed that, based upon the size of the effects, a matched sample size ranging from 500 to over 1000 participants would be needed to demonstrate the predicted effects. Further analyses showed high multicollinearity of the interaction term with the predictors, which may have diminished the reliability in the estimates of effects. As such, additional analyses were conducted using only the Time 1 samples ($N = 195$) to examine whether the predicted relationships would be significant.

Descriptive Statistics, Reliability, and Correlations T1 Sample

Table 1 presents the descriptive statistics, reliability estimates, and correlation coefficients among the Time 1 measures using the full sample ($N = 195$). The mean rating for challenge demands was at the upper end ($M = 3.57$, $SD = .76$); while hindrance demands were in the middle on average ($M = 2.67$, $SD = .82$). Job resources were more highly endorsed ($M = 3.53$, $SD = .64$). PsyCap and savoring were also higher on average ($M = 5.31$, $SD = 1.00$; $M = 5.06$, $SD = 1.10$), respectively. Mean ratings of engagement and burnout were above the midpoint ($M = 3.55$, $SD = .89$; $M = 3.08$, $SD = .87$), respectively.

Test of Mediation Between Job Resources T1 and Engagement and Burnout T1 via Personal Resources T1

The results of the simple mediation analysis, using Hayes (2013) PROCESS version 3.2 macro, demonstrated that Time 1 job resources was related to more personal resources ($a = 1.07, p < .001$), and greater personal resources were subsequently related to greater engagement ($b = .22, p < .001$); thereby, job resources was indirectly related to engagement, through personal resources at ($ab = .23, 95\% \text{ BootstrapCI } [.076, .396]$). Moreover, job resources was related to greater engagement, taking into account personal resources ($c' = .85, p < .001$). The effect size for the indirect effect accounted for approximately 21.95% ($a*b / c$) of the total effect ($R^2 = .61, f^2 = 1.56$). Thus, supporting hypothesis 5a.

The results of the simple mediation analysis demonstrated that job resources at Time 1 was related to more personal resources ($a = 1.07, p < .001$), and greater personal resources were subsequently related to less burnout ($b = -.42, p < .001$); thereby, job resources was indirectly related to burnout, through personal resources ($ab = -.45, 95\% \text{ BootstrapCI } [-.628, -.308]$). Moreover, job resources was related to less burnout, taking into account personal resources ($c' = -.28, p < .01$). The effect size for the indirect effect accounted for approximately 60.12% ($a*b / c$) of the total effect ($R^2 = .30, f^2 = .43$), providing support for hypothesis 5b.

Moderated-Mediation Analysis with the Time 1 Sample

Hayes (2013) PROCESS Model 15 was used to examine whether the direct and indirect effect of job resources predicting engagement, through personal resources was conditional to challenge demands (Hypotheses 6a, Hypothesis 6b, & Hypothesis 6c). The

results showed that there was a direct effect for job resources on personal resources, $B = 1.07$, $SE = .08$, $p < .001$. Job resources and personal resources had a direct effect on engagement ($B = .86$, $SE = .08$, $p < .001$; $B = .24$, $SE = .05$, $p < .001$, respectively); however, challenge demands was not significantly related to engagement. The interaction between personal resources and challenge demands was not significant; therefore, hypothesis 6a was not supported. Interestingly, job resources and challenge demands did interact to predict engagement, $B = .25$, $SE = .09$, $p < .01$, yielding a t statistic of $t(189) = 2.69$, $p < .01$. Demonstrating that the positive relationship between job resources and engagement is stronger at higher levels of challenge demands, supporting hypothesis 6b. Finally, the index of moderated-mediation bootstrap confidence interval straddled zero, therefore we cannot claim that the indirect effect of job resources on engagement through personal resources varied as a function of challenge demands; hypothesis 6c was not supported. Figure 3 provides a model of the significant effects.

Tests of simple slopes were conducted to interpret the interaction between job resources and challenge demands as a predictor of engagement, using guidelines developed by Cohen et al. (2003). The simple slopes were estimated at high (+1 *SD*), medium (mean), and low (-1 *SD*) values of challenge demands. The following estimated simple slopes show there was a significant positive relationship between job resources and engagement at low challenge demands, $t(189) = 6.30$, $p < .001$, medium challenge demands, $t(189) = 10.81$, $p < .001$, and high challenge demands, $t(189) = 9.71$, $p < .001$. As seen in Figure 10, employee engagement increased as job resources increased, and this effect became stronger as challenge demands increased.

Next, I conducted a test of the moderation of the direct and indirect effects of job resources predicting burnout through personal resources conditional on challenge demands (Hypotheses 7a & Hypothesis 7b). Job resources was found to have a direct effect on personal resources, $B = 1.07$, $SE = .08$, $p < .001$, as well as on burnout, $B = -.35$, $SE = .10$, $p < .001$. The mediator, personal resources, was also shown to have a significant direct effect on burnout, $B = -.48$, $SE = .06$, $p < .001$, and challenge demands also had a significant direct effect on burnout, $B = .33$, $SE = .06$, $p < .001$. The interaction between personal resources and challenge demands predicting burnout was significant, $B = -.17$, $SE = .07$, $p < .05$, yielding a t statistic of $t(189) = -2.40$, $p < .05$. While the interaction between job resources and challenge demands was not significant; providing support for hypothesis 7a, and not supporting hypothesis 7b. The index of moderated-mediation with a 95% bootstrap confidence interval was between $-.402$ and $-.040$, because the confidence interval did not straddle zero, there is evidence that the indirect effect of job resources predicting burnout through personal resources varied as a function of 1 challenge demands. See Table 4 of the conditional indirect effect of job resources on burnout. These findings together suggest that indirect negative effect of job resources on burnout through personal resources is stronger among employees who experience more challenge demands compared to fewer challenge demands. Thus, providing support for hypothesis 7c.

Tests of simple slopes were conducted to interpret the interaction between personal resources and challenge demands as a predictor of burnout. The simple slopes were estimated at high (+1 SD), medium (mean), and low (-1 SD) values of challenge demands. The following estimated simple slopes show there was a significant positive

relationship between personal resources and burnout at low challenge demands, $t(189) = -4.67, p < .001$, medium challenge demands, $t(189) = -8.03, p < .001$, and high challenge demands, $t(189) = -7.22, p < .001$. As seen in Figure 11, employee burnout decreased as personal resources increased, contrary to the anticipated interaction, this effect became stronger as challenge demands increased.

Moderated-mediation of the direct and indirect effects conditional on hindrance demands predicting engagement was conducted (Hypotheses 8a, Hypothesis 8b, & Hypothesis 8c). Job resources had a significant direct effect on personal resources, $B = 1.07, SE = .08, p < .001$. Job resources and personal resources had significant direct effects on engagement, however, hindrance demands did not have a significant direct effect on engagement ($B = .80, SE = .08, p < .001$; $B = .25, p < .001$). The interaction between personal resources and hindrance demands ($B = -.15, SE = .07, t(189) = -2.25, p < .05$) significantly predicted engagement, supporting hypothesis 8a. The interaction between job resources and hindrance demands ($B = .22, SE = .10, t(189) = 2.23, p < .05$) also significantly predicted engagement; however, the interaction between job resources and hindrance demands predicting engagement was the opposite of our hypothesis. The results showed that engagement was higher among employees who experienced more hindrance demands, thus partially supporting hypothesis 8b. However, the index of moderated-mediation with a 95% bootstrap confidence interval was between $-.384$ and $.034$, and because the confidence interval straddled zero, I could not claim that the indirect effect of job resources predicting engagement through personal resources varied as a function of hindrance demands. Therefore, hypothesis 8c was not supported. Figure 4 provides a model of the significant effects.

A test of simple slopes was conducted to interpret the interaction between personal resources and hindrance demands as a predictor of engagement. The simple slopes were estimated at high (+1 *SD*), medium (mean), and low (-1 *SD*) values of hindrance demands. The following estimated simple slopes show there was a significant positive relationship between personal resources and engagement at low hindrance demands, $t(189) = 4.72, p < .001$, and medium hindrance demands, $t(189) = 4.80, p < .001$. The relationship between personal resources and engagement was not significant when hindrance demands were high, $t(189) = 1.16, p = .25$. As can be seen in Figure 12, the positive relationship between personal resources and engagement is stronger at low and medium levels of hindrance demands compared to high levels of hindrance demands.

A second test of simple slopes was conducted to interpret the interaction between job resources and hindrance demands as a predictor of engagement. The simple slopes were estimated at high (+1 *SD*), medium (mean), and low (-1 *SD*) values of hindrance demands. The following estimated simple slopes show there was a significant positive relationship between job resources and engagement at low hindrance demands, $t(189) = 4.50, p < .001$, medium hindrance demands, $t(189) = 9.15, p < .001$, and high hindrance demands, $t(189) = 8.65, p < .001$. Contrary to the hypothesis, the positive relationship between job resources and engagement was strongest among employees who had more hindrance demands (Figure 13).

Next, a test of the moderation of the direct and indirect effects conditional on hindrance demands was conducted to predict burnout (Hypotheses 9a & Hypothesis 9b). Mean-centered job resources was found to predict burnout, $B = -.38, SE = .08, p < .001$. The mediator, personal resources, was also shown to have a significant direct effect on

burnout, $B = -.21$, $SE = .05$, $p < .001$. Hindrance demands was significantly related to burnout, $B = .50$, $SE = .05$, $p < .001$. The interaction between job resources and hindrance demands nor the interaction between personal resources and hindrance demands predicted burnout. Therefore, hypotheses 9a and 9b were not supported. The index of moderated-mediation with a 95% bootstrap confidence interval was between $-.105$ and $.252$, and because the confidence interval contained zero, I could not claim that the indirect effect of job resources predicting burnout through personal resources varied as a function of hindrance demands. Similarly, hypothesis 9c was not supported.

Next, Hayes (2013) PROCESS Model 8 was used to test the moderation effect of savoring on the direct and indirect relationship between job resources and engagement through personal resources (Hypothesis 10a & 10b). A direct relationship was found with job resources and savoring to predict personal resources ($B = .80$, $SE = .08$, $p < .001$; $B = .35$, $SE = .05$, $p < .001$), respectively. However, the interaction between job resources and savoring did not predict personal resources, therefore hypothesis 10a was not supported. The direct effect of job resources on engagement was significant, $B = .84$, $SE = .08$, $p < .001$, as well as the direct effect of personal resources on engagement, $B = .19$, $SE = .06$, $p < .01$. The interaction between job resources and savoring did not significantly predict engagement; again, hypothesis 10b was not supported. Hypothesis 10c was also not supported as the index of moderated-mediation of the indirect effect of job resources on engagement through personal resources, conditional on savoring, with 95% bootstrap confidence interval straddled zero. Again, Figure 2 provides a model of the significant effects with Time 1 burnout.

In Hypothesis 10d, there was a significant direct effect of job resources on burnout, $B = -.24$, $SE = .08$, $p < .01$. Personal resources had a significant direct effect on burnout, $B = -.13$, $SE = .06$, $p < .05$. Savoring also had a significant direct effect on burnout, $B = -.41$, $SE = .04$, $p < .001$. Furthermore, the interaction between job resources and savoring was significantly related to burnout, $B = -.20$, $SE = .06$, $p < .001$, yielding a t statistic of $t(190) = -3.44$, $p < .001$. Thus, indicating that the negative relationship between job resources and burnout was stronger at higher levels of savoring compared to lower levels of savoring, providing support for hypothesis 10d. However, savoring did not significantly moderate the indirect relationship between job resources and burnout through personal resources (95% BootstrapCI [-.022, .026]), therefore hypothesis 10e was not supported.

A test of simple slopes was conducted next to examine the interaction between job resources and savoring as a predictor of burnout. The simple slopes were estimated at high (+1 SD), medium (mean), and low (-1 SD) values of savoring. The following estimated simple slopes show there was a significant negative relationship between job resources and burnout at medium savoring, $t(190) = -2.89$, $p < .01$, and high savoring, $t(190) = -4.71$, $p < .001$. The relationship between job resources and burnout was not significant at low levels of savoring, $t(190) = -.14$, $p = .89$. As can be seen in Figure 14, the negative relationship between job resources and burnout is strongest at high levels of savoring, followed by medium levels, compared to low levels of savoring.

Finally, the indirect effect of job resources predicting engagement through personal resources, moderated by both savoring and challenge demands was examined. The direct effects of job resources and savoring were related to personal resources ($B =$

.80, $SE = .08, p < .001$; $B = .35, SE = .05, p < .001$, respectively). However, the interaction between job resources and savoring was not related to personal resources. Job resources and personal resources had significant direct effects on engagement ($B = .85, SE = .06, p < .001$; $B = .20, p < .01$), respectively. Savoring and challenge demands did not have significant direct effects on engagement, nor were the interactions between job resources and savoring, and personal resources and challenge demands significantly related to engagement. However, the interaction between job resources and challenge demands was significantly related to engagement, $B = .26, SE = .09, t(187) = 2.73, p < .01$. The test of simple slopes for this interaction was previously conducted; see the tests of simple slopes regarding hypothesis 6b. There was no significant index of moderated-mediation between the direct effect of job resources predicting engagement through personal resources, conditional on savoring and challenge demands, therefore hypothesis 11a was not supported.

Next, the indirect effect of job resources predicting engagement through personal resources, moderated by both savoring and hindrance demands, was tested. First, job resources and savoring had a significant direct effect on the mediator, personal resources, ($B = .85, SE = .08, p < .001$; $B = .35, SE = .05, p < .001$) respectively. The interaction between job resources and savoring predicting personal resources was not significant. Job resources and personal resources had a significant direct effect on engagement ($B = .75, SE = .08, p < .001$; $B = .20, SE = .06, p < .001$) respectively. Additionally, savoring and hindrance demands had significant direct effects on engagement ($B = .14, SE = .14, p < .01$; $B = .13, SE = .06, p < .05$), respectively. Job resources and savoring did not significantly interact to predict engagement, nor was there a significant interaction

between personal resources and hindrance demands to predict engagement. However, job resources and hindrance demands did significantly interact to predict engagement, $B = .32$, $SE = .11$, $t(187) = 3.04$, $p < .01$. The test of simple slopes for this interaction was previously conducted; see the tests of simple slopes regarding hypothesis 8b. According to the index of moderated-mediation, there was no evidence of moderated-mediation of the indirect effect between job resources and engagement through personal resources, conditional on savoring and hindrance demands; therefore, hypotheses 11b was not supported.

Next, the indirect effect of job resources predicting burnout through personal resources moderated by both savoring and challenge demands was examined. First, job resources and savoring had significant direct effects on the mediator personal resources ($B = .80$, $SE = .08$, $p < .001$; $B = .35$, $SE = .05$, $p < .001$), respectively. However, there was not a significant interaction between job resources and savoring predicting personal resources. Job resources had a significant direct effect on burnout, $B = -.28$, $SE = .08$, $p < .001$. Personal resources had a significant direct effect on burnout, $B = -.20$, $SE = .06$, $p < .001$. Savoring had a significant direct effect on burnout, $B = -.37$, $SE = .04$, $p < .001$. Challenge demands also had a significant direct effect on burnout, $B = .21$, $SE = .05$, $p < .001$. Furthermore, there was a significant interaction between job resources and savoring predicting burnout, $B = -.18$, $SE = .06$, $t(187) = -3.08$, $p < .01$. This finding shows that the negative relationship between job resources and burnout was stronger at high levels of savoring compared to lower levels of savoring. The test of simple slopes for this interaction was previously conducted; see the tests of simple slopes regarding hypothesis 10d. The interaction between person resources and challenge demands predicting burnout

was not significant. Nor was there a significant interaction between job resources and challenge demands predicting burnout. There was also no significant index of moderated-mediation between the direct effect of job resources predicting burnout through personal resources, conditional on savoring and challenge demands, therefore hypothesis 12a was not supported.

Finally, the indirect effect of job resources predicting burnout through personal resources moderated by both savoring and hindrance demands was tested. The direct effects of job resources and savoring were significantly related to personal resources ($B = .80, SE = .08, p < .001$; $B = .35, SE = .58, p < .001$), respectively. Again, job resources and savoring did not interact to predict personal resources. In the full model, job resources had a significant direct effect on burnout, $B = -.31, SE = .07, p < .001$. Personal resources had a significant direct effect on burnout, $B = -.11, SE = .05, p < .05$. Savoring had a significant direct effect on burnout, $B = -.26, SE = .05, p < .001$; and hindrance demands also had a significant direct effect on burnout, $B = .35, SE = .06, p < .001$. However, the interactions between job resources and savoring, between job resources and hindrance demands, and between personal resources and hindrance demands were all found to not be significantly related to burnout. Thus, the index of moderated-mediation was not significant and hypotheses 12b was not supported.

CHAPTER EIGHT

DISCUSSION

Substantial research in the area of positive psychology has shown the benefits of savoring positive experiences on mental health, such as, increased positive affect, happiness, well-being, as well as less negative affect, lower symptoms of depression and multiple anxiety disorders (Carl et al., 2014; Eisner, Johnson, & Carver, 2009; Hou et al., 2017; Quoidbach et al., 2010; Smith & Hanni, 2017; Wood, Heimpel, & Michela, 2003). However, a lack of research on savoring among employee samples has left a gap in the literature on the potential benefits of savoring related to employee outcomes. Nelson and Simmons (2011) introduced savoring as an aspect of the Holistic Model of Stress, in which savoring enhanced the positive effects of eustress (positive stress) related to work demands. Although the Holistic Model of Stress is one of the few models to incorporate savoring, there is little evidence for its support. As such, the present study sought to expand the research on savoring among employees and examine the role of savoring in the context of the JD-R model. The present study investigated whether savoring moderated the relationship between job resources and engagement and burnout over time.

In addition, previous findings have shown that personal resources, such as self-efficacy and resilience, mediated the job resources-engagement and burnout relationship (Xanthopoulou et al., 2007). However, the literature on personal resources has, to my knowledge, not had consensus on a single or group of common constructs that may be collectively identified as personal resources. I proposed that psychological capital (PsyCap), combining four trait-like constructs, hope, optimism, resilience, and self-efficacy, might serve as a viable measure of personal resources that mediates the

relationship between job resources and engagement, and burnout. Furthermore, the present study strived to build upon the research by Bakker and Sanz-Vergel (2013) and Tadic, Bakker, and Oerlemans (2015), by demonstrating the moderating effect of challenge and hindrance demands on the job resources-engagement and burnout relationship. Together, this dissertation examined whether employee savoring of positive experiences, challenge demands, and hindrance demands, moderated the longitudinal job resources-engagement and burnout relationship mediated by personal resources (PsyCap).

Factor Structure of the Moderators and the Mediator

Previous research has found that job demands may be categorized into two groups of demands based upon their relationship to positive and negative outcomes (LePine, Podsakof, & LePine, 2005). Challenge demands are work tasks and conditions, such as workload and job complexity, that may elicit positive growth, learning, and goal attainment. Hindrance demands, including role ambiguity and interpersonal conflict, are work tasks and conditions that do not have growth potential. The results of the confirmatory factor analysis (CFA) using the larger Time 1 sample confirmed the proposition that job demands consisted of two unique factors, which were thereafter tested to assess whether each factor was more positively or negatively related to other theoretical outcomes. As expected, challenge demands were positively related to personal resources and engagement; while hindrance demands were negatively related to personal resources, savoring and engagement, and positively related to burnout.

The second aim of the factor analysis was to distinguish the overall measure of savoring from the overall measure of PsyCap, in order to demonstrate that savoring and

PsyCap ought to be treated as separate constructs. The results of the initial CFA did not support the two-factor structure between savoring and PsyCap. Therefore, an exploratory factor analysis (EFA) was conducted to investigate the factor loadings of the savoring and PsyCap items. Three factors emerged as a result of the EFA, including a savoring factor, PsyCap factor, and a negatively worded items factor. Negatively worded items universally loaded onto the negatively worded items factor from both measures. An assessment of the relationships between the positively worded savoring items with the other variables showed they were similar in strength and magnitude to the relationships with the full SBI. Therefore, I chose to use the full measure of the SBI rather than removing a large number of items from an established measure. Items from the hope, resilience, and self-efficacy subscales of PsyCap all loaded onto the PsyCap factor, except one negatively worded resilience item.

However, interestingly, the factor analysis showed that the four positively worded optimism subscale items, from the PsyCap measure, all loaded onto the savoring factor. Further examination of the optimism items showed that they were highly correlated with each of the savoring subscales. This evidence provided justification to remove the optimism subscale from the overall measure of PsyCap before proceeding with further analyses. Additional research is needed to determine whether the constructs of optimism and savoring are empirically distinct.

Summary of Findings – Hypothesis Testing with the Matched Sample

The present study aimed to assess the longitudinal relationships between Time 1 job resources, personal resources, savoring, challenge and hindrance demands, and Time 2 engagement and burnout. In addition, this study sought to show that the Time 1 job

resources-Time 2 engagement and burnout relationship were mediated through Time 1 personal resources. Furthermore, the study aimed to demonstrate the moderation effects of savoring and challenge and hindrance demands on the mediated relationship. Finally, this study also examined the aforementioned relationships cross-sectionally with a larger Time 1 sample.

Firstly, the present study showed that Time 1 job resources were positively related to engagement at Time 2, and negatively related to burnout at Time 2. This finding supports previous research suggesting that employees who have more job resources, such as autonomy and social support, may be more dedicated and absorbed in their work, and have fewer symptoms of burnout, such as cynicism toward work (Bakker, Demerouti, & Schaufeli, 2003; Schaufeli & Bakker, 2004; Bakker & Demerouti, 2007).

Next, the results showed that Time 1 job resources were related to Time 1 personal resources, and that Time 1 personal resources were positively related to Time 2 engagement and negatively related to Time 2 burnout. These findings were supported using both the full measure of PsyCap and the reduced measure of PsyCap that omitted the optimism subscale. Previous research has identified various first-order constructs as personal resources, such as optimism and self-efficacy, both of which are related to resilience (Xanthopoulou et al., 2007; Xanthopoulou, Bakker, & Fischbach, 2013). Therefore, the results of the present study support my idea that PsyCap may be used collectively and framed as a personal resource in future JD-R related studies, in addition to alternative personal resources of interest in JD-R research.

Savoring was also found to be positively related to personal resources, both the full measure of PsyCap and the reduced measure of PsyCap, whereby employees who

had higher savoring beliefs reported greater personal resources, such as resilience and self-efficacy. This finding was also shown in the larger sample. Supporting previous findings by Smith and Hollinger-Smith (2013) who showed that savoring and resilience were positively related, as well as the results by Sytine et al. (2018) finding that savoring was positively related to overall PsyCap.

Time 1 personal resources was found to partially mediate the relationship between Time 1 job resources and Time 2 engagement. In addition, Time 1 personal resources was found to partially mediate the negative relationship between Time 1 job resources and Time 2 burnout, such that employees with greater job resources may diminish the experience of burnout through enhancing personal resources. The results support previous findings by Xanthopoulou and colleagues (2007; 2009b) who demonstrated a longitudinal relationship between job and personal resources and engagement, and had suggested that job resources can have a greater effect on employee outcomes such as engagement and burnout through enhancing employees' resiliency beliefs, optimism, and self-efficacy. Furthermore, Xanthopoulou et al. (2009b) found that job and personal resources were equally strong correlates of each other at Time 1 and longitudinally. Post hoc analysis showed that in the present study, the effect of Time 1 job resources on personal resources was stronger than the effect of Time 1 personal resources on job resources.

The results of the matched Time 1-Time 2 sample were not able to demonstrate a significant interaction between Time 1 challenge demands and personal resources, nor Time 1 challenge demands and job resources in predicting Time 2 engagement or burnout. Similarly, no significant interaction was found between Time 1 hindrance

demands and personal resources, not Time 1 hindrance demands and job resources in predicting Time 2 engagement or burnout. There was also no significant interaction between Time 1 job resources and savoring predicting Time 1 personal resources or Time 2 engagement. The Time 1 moderators did not moderate the indirect effect of Time 1 job resources on Time 2 engagement or burnout.

The lack of significant interactions and main effects between the Time 1 predictors and Time 2 outcomes is likely due to insufficient power to detect the small effect sizes. The matched sample was substantially smaller than the Time 1 sample and the power analysis using *g**power (Faul et al., 2007) revealed that a much larger sample size would be needed to yield substantial power to demonstrate a significant interaction. Furthermore, analyses showed high multicollinearity of the interaction term with the predictors, diminishing the effective sample size, and thus the statistical power for estimates of individual predictors. Although PROCESS v. 3.2 (Hayes, 2013) mean-centers the predictor variables, some researchers have argued that mean-centering does not alleviate “macro” multicollinearity, whereby all the interrelationships among a set of predictors diminishes the correlations between the predictors and the outcome variable (Iacobucci et al., 2016). Therefore, the sample size was not large enough given the number of predictors to sufficiently detect a significant effect.

There was, however, a significant main effect of savoring and a significant interaction between Time 1 job resources and savoring predicting burnout at Time 2. Employees who reported having greater job resources experienced fewer symptoms of burnout, and this relationship was magnified when employees had greater savoring beliefs. Previous research on savoring has consistently demonstrated that savoring was

negatively related to various negative mental health symptoms (Bryant, 1989; Bryant, 2003; Eisner, Johnson, & Carver, 2009). These findings provide support for the potential positive impact of savoring positive experiences on employees' mental health, as well as the role of savoring within the framework of the JD-R model.

Finally, four three-way interactions were hypothesized between Time 1 job resources, savoring, and challenge demands, and Time 1 job resources, savoring, and hindrance demands predicting Time 2 engagement and burnout. In which the interaction between Time 1 job resources and savoring would vary across levels of challenge and hindrance demands predicting Time 2 engagement and burnout. The results did not support the three-way interactions, however, the two-way interaction between savoring and job resources predicting Time 2 burnout remained significant in the full model with challenge demands. Showing that the interaction between job resources and savoring predicting Time 2 burnout was significant and did not vary at different levels of challenge demands. The lack of significant interactions may again be attributed to insufficient power to detect the effects.

Summary of Findings – Hypothesis Testing using the Time 1 Sample

Using the larger Time 1 sample of 195 participants, the results showed that job resources were positively related to personal resources and engagement, and negatively related to burnout. Personal resources were also positively related to engagement and negatively related to burnout. There was also a positive relationship between savoring and personal resources. Furthermore, personal resources, using both the full measure of PsyCap and the reduced measure, significantly mediated both the positive relationship between job resources and engagement, and the negative relationship between job

resources and burnout. In the larger Time 1 sample, the coefficients for the mediation effect predicting engagement were about the same as in the matched sample. However, the strength of the negative relationship between personal resources and burnout on the *b* path and the indirect effect (*ab*) were slightly larger in the larger Time 1 sample compared to the matched sample.

Challenge demands did not significantly interact with personal resources to predict engagement. However, there was a significant interaction between job resources and challenge demands predicting engagement. The positive relationship between job resources and engagement was magnified by the presence of more challenge demands. These results support previous findings by Tadic, Bakker, and Oerlemans (2015), who found that challenge demands had a positive effect on work engagement. Challenge demands may provide employees with an opportunity for growth and development, which may facilitate engagement if job resources are available to meet those demands.

Personal resources and challenge demands were found to significantly interact to predict burnout, showing that the negative relationship between personal resources and burnout was strongest in the presence and more challenge demands. This interaction was contrary to the hypothesis, which predicted that the relationship between personal resources and burnout would be stronger when there were fewer challenge demands. This finding suggests that there may be another mechanism affecting the relationship between personal resources and challenge demands. The strength of personal resources may be enhanced through the presence of challenge demands, which may be contributing to employee resilience and self-efficacy. While Tadic, Bakker, and Oerlemans (2015) did not find a significant interaction between personal resources and challenge demands, my

findings provide additional evidence of the importance of personal resources for employee wellbeing. Although there was not a significant interaction between job resources and challenge demands predicting burnout, challenge demands were positively related to burnout; indicating that employees were more likely to report greater symptoms of burnout when challenge demands were high compared to low.

There was a significant interaction between both personal resources and hindrance demands, and job resources and hindrance demands, predicting engagement. The positive relationship between personal resources and engagement was strongest when hindrance demands were low. Interestingly, however, the positive relationship between job resources and engagement was strongest when hindrance demands were high, contrary to the expected effect. Although Bakker and Sanz-Vergel's (2013) concerns about the perceptions of hindrance demands come to mind, there may be another mechanism affecting this interaction, because job resources and engagement were both shown to have a moderate negative relationship with hindrance demands. It may be that job resources matter more when an employee has a highly demanding or stressful job. Further, the presence of more hindrance demands possibly increases the salience of the positive benefits of the available job resources, such as social support and feedback, thus contributing to greater engagement at work.

The interactions between personal resources and hindrance demands, and job resources and hindrance demands predicting burnout were not significant. Nor was there a significant interaction between job resources and savoring predicting personal resources, or job resources and savoring predicting engagement. However, job resources and savoring did show a significant interaction predicting burnout. Similar to the findings

using the matched sample, the negative relationship between job resources and burnout was stronger when employees reported greater savoring. Again, this finding shows that employees may benefit from savoring positive experiences to help diminish the experience of burnout.

Finally, the four three-way interactions were tested, and as with the matched sample the results did not support the three-way interactions. However, the two-way interaction between job resources and challenge demands predicting engagement remained significant in the full model. The positive relationship between job resources and engagement was enhanced by challenge demands. However, the interaction did not vary across levels of savoring. The two-way interaction between job resources and hindrance demands predicting engagement was significant. Similarly, hindrance demands enhanced the positive relationship between job resources and engagement. The interaction between job resources and hindrance demands did not vary across levels of savoring. Finally, the two-way interaction between job resources and savoring predicting burnout was also significant in the full model, but it did not vary across levels of challenge demands. Whereby, the savoring magnified the negative relationship between job resources and burnout.

Finally, the moderators did not significantly interact with the indirect effect of job resources on engagement or burnout, through personal resources. The lack of significant interactions and main effects between the predictors and outcomes is again likely due to insufficient power to detect the small effect sizes.

Theoretical Implications

First, the results of the factor analysis aimed at distinguishing savoring from PsyCap showed that the items from the optimism subscale had higher loadings on the savoring factor. Examination of the optimism and savoring items revealed similarities between the optimism items and items from the savoring through anticipation and savoring in the moment subscales of the SBI (Bryant, 2003). Luthans, Youssef, and Avolio (2007) defined optimism as the tendency to expect positive outcomes now and in the future; whereas, savoring refers to one's ability to generate, intensify, and maintain positive emotions in the moment and through anticipating future events and reminiscing about past events (Bryant, 2003). The relationship between optimism and the three subscales of savoring was not examined specifically in the present study. Therefore, it may be surmised that the mechanism that contributes to one's tendency to be optimistic is the same, or similar, to one's ability to savor positive experiences, specifically savoring through anticipating positive events in the future.

The present study provides additional support to the JD-R literature, showing that there are positive relationships between job resources, personal resources and engagement; as well as negative relationships between job resources and burnout and personal resources and burnout (Bakker, Demerouti, & Schaufeli, 2003, Xanthopoulou et al., 2007). Additionally, these relationships held over time. Furthermore, the present study demonstrated support for both the full measure of PsyCap and the shortened measure of PsyCap, that omitted the optimism subscale, as a mediator of the job resources-engagement and burnout relationship. Thus, PsyCap is a viable collective

measure of personal resources that may be used, among other potential personal resources, for future research in the context of the JD-R model.

Few studies have examined the effects of savoring among employee samples (Castanheira & Story, 2016; Hou et al., 2016), and this is the first study to examine savoring in the context of the JD-R model. Savoring was positively related to both Time 1 and Time 2 engagement, and negatively related to Time 1 and Time 2 burnout. Savoring was also shown to significantly moderate the longitudinal relationship between Time 1 job resources and Time 2 burnout; as well as cross-sectionally. These findings provide evidence that savoring has a role in future research involving employees and work related outcomes, in addition to employee mental health. Savoring may be considered an alternative personal resource, complimenting PsyCap, whereby savoring positive experiences may enhance resilience or other resources, and facilitating positive employee outcomes.

Practical Implications

The results of the present study have several practical implications. First, personal resources, measured by PsyCap, were shown to mediate the positive relationship between job resources and engagement, and the negative relationship between job resources and burnout. From this finding we might infer that employees can amplify the benefits of available job resources through enhancing hope, resilience, optimism, and self-efficacy. Avey, Luthans, and Jensen (2009) discussed the value of PsyCap interventions in potentially diminishing symptoms of stress and turnover intentions among employees, whereby, employees may engage in activities that enhance states of hope, optimism, resilience and self-efficacy, as well as overall PsyCap. Furthermore,

these benefits may extend to other employee/work related outcomes, such as organizational commitment and creativity.

Organizations and or managers may facilitate the growth and development of employees by offering resources and training that contribute to enhancing PsyCap. Specifically, resources and training that contribute to greater resilience and self-efficacy may help employees manage and withstand additional challenges or stressors. In addition, resources and training aimed at developing employees' hope and optimism may allow employees to have a more positive perspective of the future, thereby diminishing negative emotions at work. Collectively, resources and training aimed at developing employees' PsyCap may yield greater positive work out comes and mental health, thus benefiting the organization as a whole. Individuals may also vary on each subscale of PsyCap; therefore, interventions may wish to target specific subscales of PsyCap per the individual, rather than spending unnecessary resources on modifying PsyCap as a whole, which may be redundant.

Additionally, savoring was shown to magnify the negative relationship between job resources and burnout. The significant relationship between savoring and engagement and burnout has implications for training employees to be better at savoring positive experiences through reminiscence, anticipation, and in the moment. Previous research on savoring interventions has primarily focused on savoring as an effective strategy to buffer against negative mental health symptoms and boost positive emotions (Hurley & Kwon, 2012; Smith & Hanni, 2017). Savoring may serve as an effective buffer against other negative work outcomes such as work related stress and turnover intentions that are

associated with job demands. However, the present study provides evidence that savoring strategies may be applied to enhance positive outcomes at work as well.

Savoring positive experiences provide employees with positive thoughts and emotions, which may thus magnify the positive association of having more job resources available to engage in ones work and overcome demands. Training employees to be better able to savor positive experiences either at work or outside of work may be associated to additional positive work outcomes such as job satisfaction and affective organizational commitment. In addition, savoring training may also be beneficial to those in highly demanding occupations and employees that are more susceptible to experience burnout. Savoring training may also occur at the supervisor level. Supervisors can be trained in savoring and also encourage other employees to savor more.

Limitations and Future Directions

While the present study had strengths through the use of a longitudinal design, there were several limitations that provide directions for future research. First, the study utilized self-report measures to assess all of the examined constructs. Although the present study ensured anonymity in order to encourage honest responding, self-report measures are susceptible to self-serving bias and errors in recollection if the measure asks participants to remember past experiences. Future studies may benefit by using multi-source and or objective measures of the predictors and outcomes.

Second, the study relied on collecting data using MTurk workers. Using MTurk had the benefit of providing a generalizable sample, with employees across different demographic groups and occupations. However, methodological concerns such as inattentiveness or misunderstandings of instructions may affect the validity of the study.

In addition, I was not able to collect a larger matched sample, which diminished the power of the study. Although participants were reminded to take the Time 2 survey, fewer than half of the participants from Time 1 chose to take the Time 2 survey. Inadequate pay (\$1.75) and the length of the survey (approximately 20 minutes) may have collectively diminished motivation to participate. In future studies using MTurk workers with more than two predictors and a longitudinal design, a much larger sample should be collected at Time 1 with the expectation that there will be fewer participants at Time 2. Due to the small matched sample size of the present study, future studies need to provide adequate compensation to enhance participation, especially if data is collected at multiple times.

While there is support for the use of longitudinal designs, the use of daily diary studies and experience sampling methodologies may be more insightful to the explicit effect of savoring in specific situations. For example, if an employee experiences a hindrance demand, can savoring a positive experience, either at work or in general, in that moment buffer the experience of strain? In contrast, can a unique job resource or positive work experience be savored to enhance an employee's mood, thus affecting their engagement on a given day? Daily diary studies could also measure daily PsyCap, as was done in Sytine et al. (2018b), to examine how daily fluctuations in PsyCap are related to various employee outcomes. Due to the high multicollinearity between PsyCap and savoring in the present study, future research involving PsyCap and savoring should note that multicollinearity might be an issue and check the tolerance between predictors. Furthermore, researchers should take necessary measures to mitigate multicollinearity accordingly based on their scholarly interests.

The present study used the SBI developed by Bryant (2003), in which the items referred generally to positive experiences. A critical aspect of the SBI is that half of the 24-items are negatively worded, and results in a negatively worded methods factor. The negatively worded methods factor may be indicative of emotional stability, and when combined with the positively worded savoring items affect the strength and magnitude of the relationships between savoring and other variables. Future research may benefit from examining whether the negatively worded items measure a different construct, whether those items ought to remain in the SBI, and whether a modified version with only positively worded items from the SBI is more valid. Another direction using the negatively worded items is to use latent scores on the negatively worded items, rather than the observed score, and conduct the relative analyses with latent scores. In addition, the present study did not examine the relationships between specific forms of savoring, anticipation, in the moment, and reminiscence, and the other variables. Future research may seek to identify whether one type of savoring is more viable for different situations or in the face of specific stressors.

The findings of the present study also provide opportunity for future research in savoring in the context of the workplace. Future research may ask how much can people savor a positive experience specific to work compared to an event outside of work. The workplace may have a climate or culture that encourages savoring and enhances or hurts an employee's ability to savor. Researchers investigating savoring in the workplace may wish to create a measure of savoring that is unique to the workplace. A savoring in the workplace measure might include items that refer to savoring specific job resources or savoring positive work related experiences. The relationship between savoring and other

employee/work related constructs ought to be examined, such as work-family-conflict, satisfaction with pay, work stress, team engagement (e.g., can an employee savor being in a cohesive and successful team? Is savoring a team related to positive outcomes?).

Conclusion

The presence of job resources, such as autonomy, performance feedback, and social support, are positively related to employee engagement and negatively related to burnout. This relationship may be enhanced through positive psychological capacities such as hope, optimism, resilience, and self-efficacy. Research in savoring has revealed promising evidence that employees who savor more may experience fewer symptoms of burnout when more job resources are available. Savoring research ought to be continued in the context of the workplace. Along with previous research highlighting the benefits of savoring on mental health, savoring has potential promise of enhancing employees' work experiences and diminishing negative outcomes.

CHAPTER NINE

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Table 1.

Means, standard deviations, bivariate correlations among study variables for the Time 1 sample

Scale	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Challenge Demands	3.57	0.76	(.81)								
2. Hindrance Demands	2.67	0.82	.25**	(.91)							
3. Job Resources	3.53	0.64	.28**	-.18*	(.94)						
4. PsyCap	5.23	0.99	.27**	-.40**	.71**	(.94)					
5. PsyCap w/o Optimism	5.31	1.00	.31**	-.37**	.68**	.98**	(.94)				
6. Savoring	5.06	1.10	.04	-.61**	.44**	.68**	.61**	(.95)			
7. Savoring - Positive Items	5.3	0.99	.19**	-.24**	.61**	.75**	.71**	.78**	(.92)		
8. Engagement	3.55	0.89	.21**	-.15*	.78**	.70**	.67**	.47**	.62**	(.93)	
9. Burnout	3.08	0.87	.04	.65**	-.55**	-.69**	-.63**	-.74**	-.53**	-.65**	(.93)

Note. Cronbach's alphas are presented in parentheses along the diagonal.

N = 195 for Time 1 variables

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

Table 2.

Means, standard deviations, and bivariate correlations among study variables for the matched Time 1-Time 2 sample

Scale	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Challenge Demands	3.57	0.79	(.82)						
2. Hindrance Demands	2.50	0.63	.06	(.83)					
3. Job Resources	3.41	0.69	.26**	-.48**	(.95)				
4. Personal Resources (PsyCap)	5.22	1.13	.31**	-.50**	.73**	(.95)			
5. Savoring	5.14	1.11	.08	-.56**	.57**	.67**	(.95)		
6. Engagement (T2)	3.32	.95	.20	-.35**	.74**	.68**	.57**	(.95)	
7. Burnout (T2)	3.06	.90	-.11	.47**	-.73**	-.68**	-.68**	-.84**	(.94)

Note. Cronbach's alphas are presented in parentheses along the diagonal. T2 = Time 2.

N = 94 for Time 1 and Time 2 variables

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

Table 3.

Conditional direct and indirect effects of job resources on burnout for the conditional challenge demands process model at Time 1

<i>W</i>	Indirect Effect		Direct Effect		<i>p</i>
	$(a_1 + a_3 W)b$	95% Bootstrap CI	$c'_1 + c'_3 W$	<i>SE</i>	
Low CD	-0.387	-0.563 to -0.165	-0.453	0.125	<.001
Med CD	-0.538	-0.729 to -0.376	-0.336	0.096	<.001
High CD	-0.658	-0.920 to -0.452	-0.215	0.127	0.059

Note: W = Challenge Demands at Time 1, $(a_1 + a_3 W)b$ = Indirect effect, $c'_1 + c'_3 W$ = Direct effect

FIGURES

Figure 1.

Conceptual moderated-mediation model predicting engagement and burnout at T2

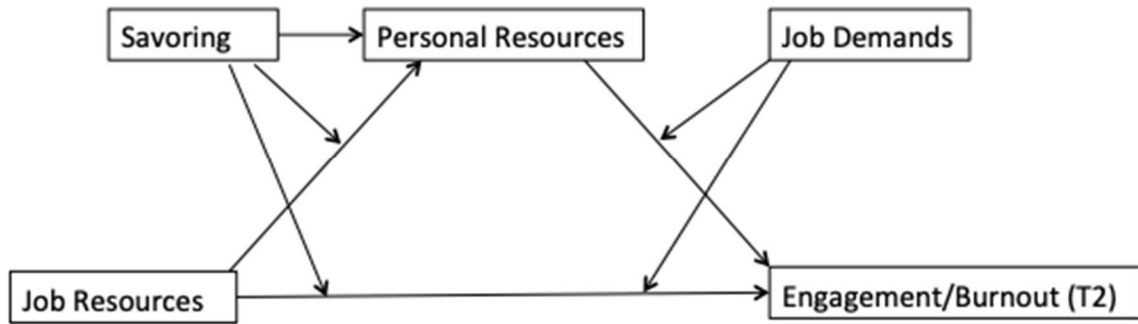


Figure 2.

Moderated-mediation model predicting burnout at T2

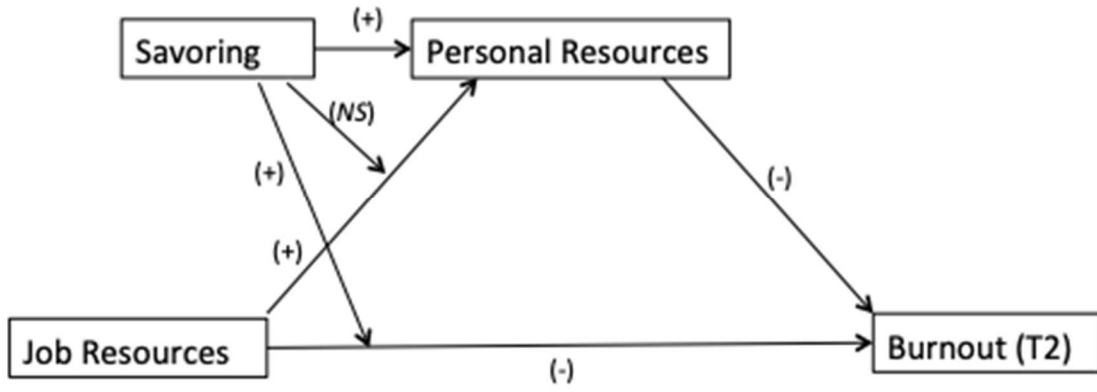


Figure 3.

Moderated-mediation model predicting engagement at Time 1 including challenge demands

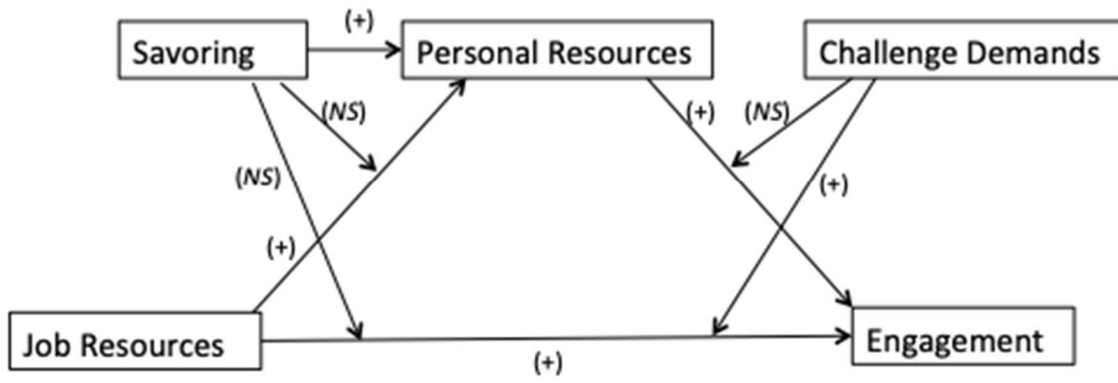


Figure 4.

Moderated-mediation model predicting engagement at Time 1 including hindrance demands

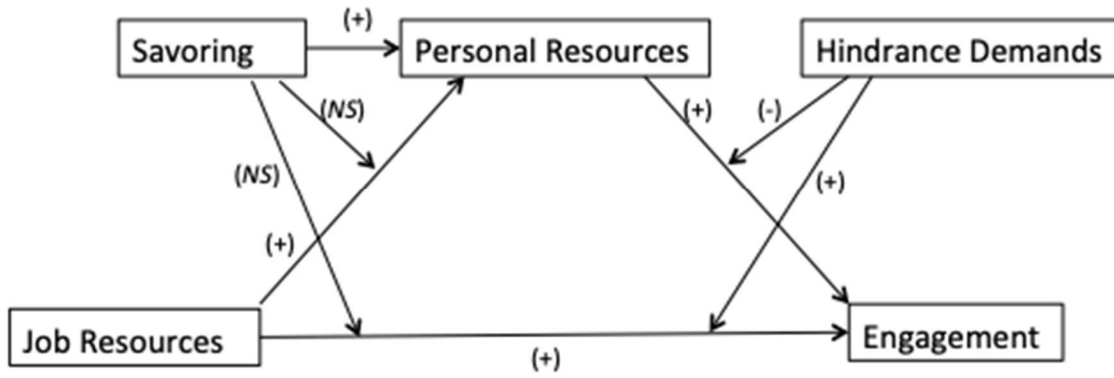


Figure 5.

The JD-R model of burnout (Demerouti et al., 2001)

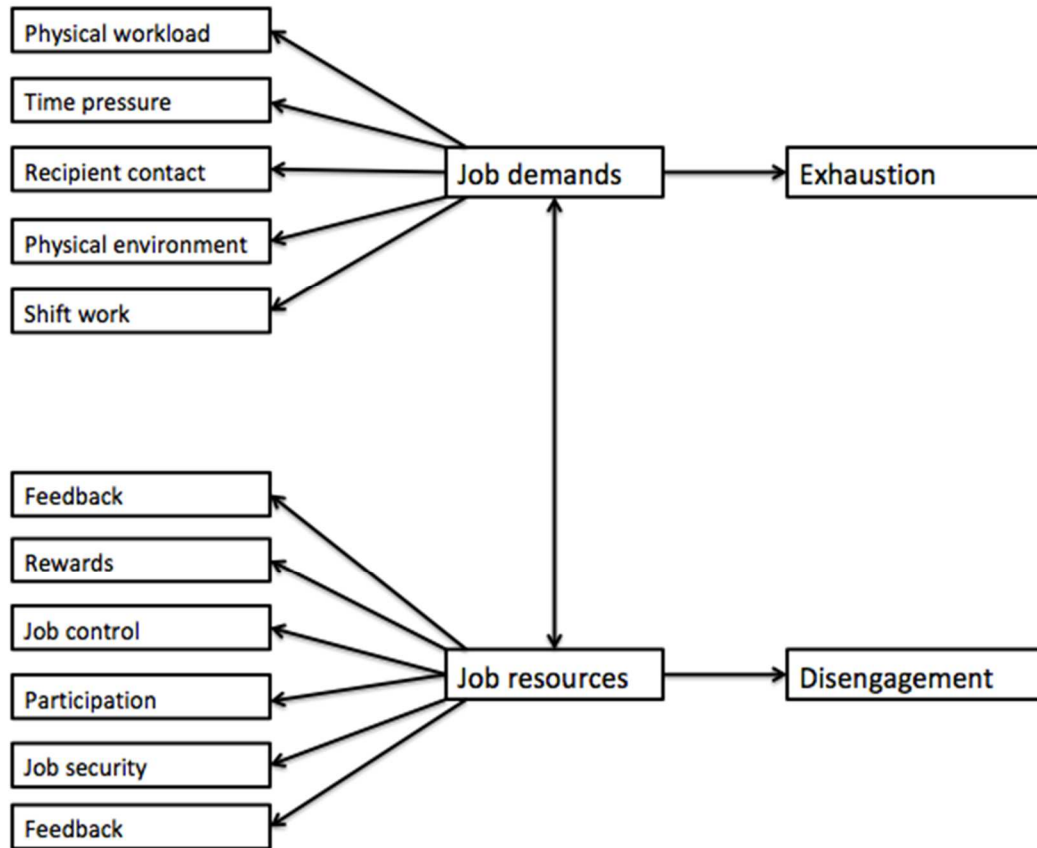


Figure 6.

The dual processes of the JD-R model (Bakker & Demerouti, 2007)

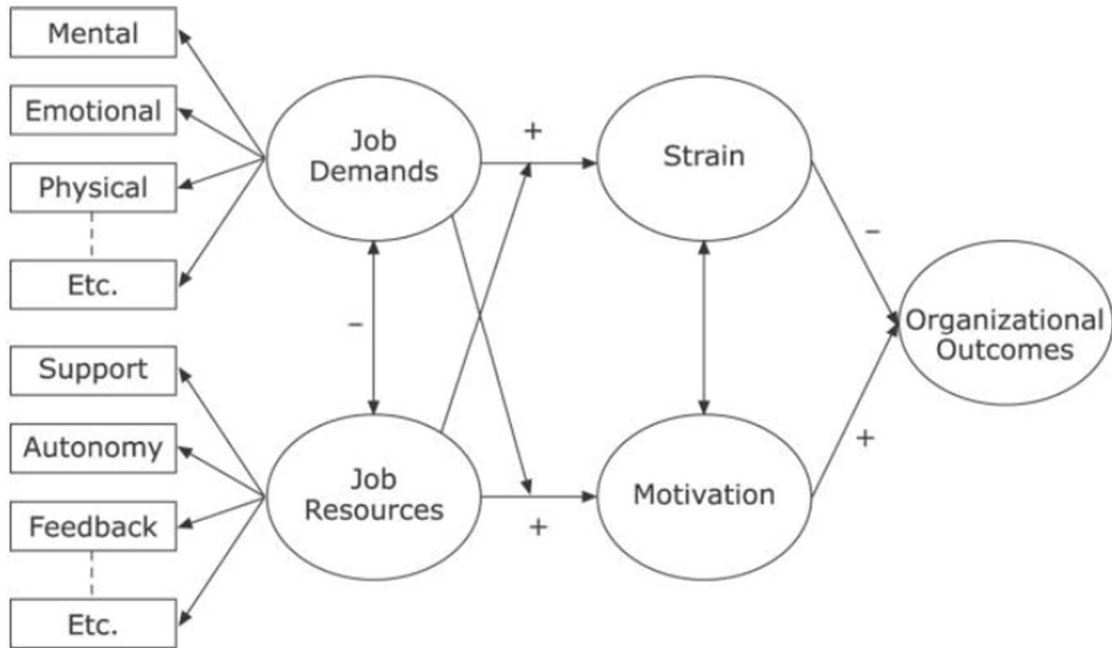


Figure 7.

Holistic Model of Stress (Nelson & Simmons, 2004)

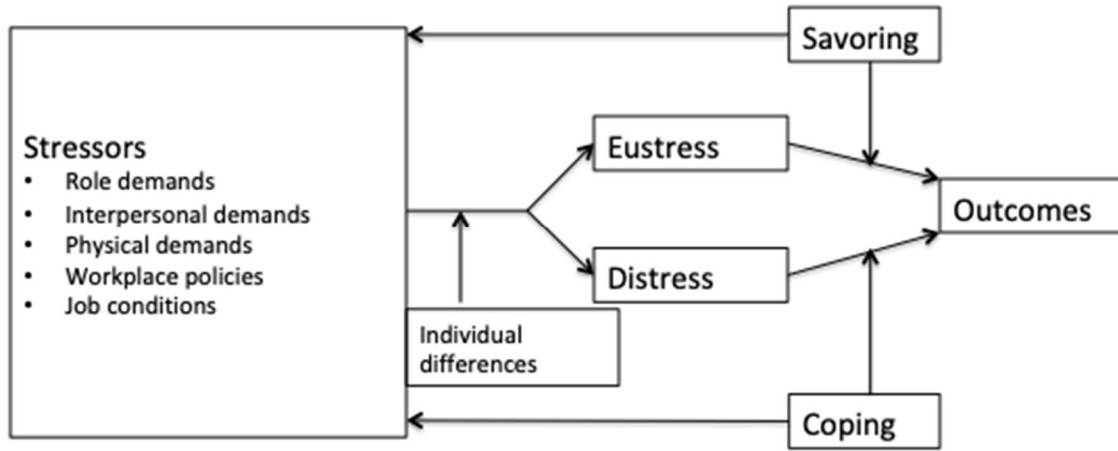


Figure 8.

The interaction between Time 1 job resources and savoring predicting Time 2 burnout

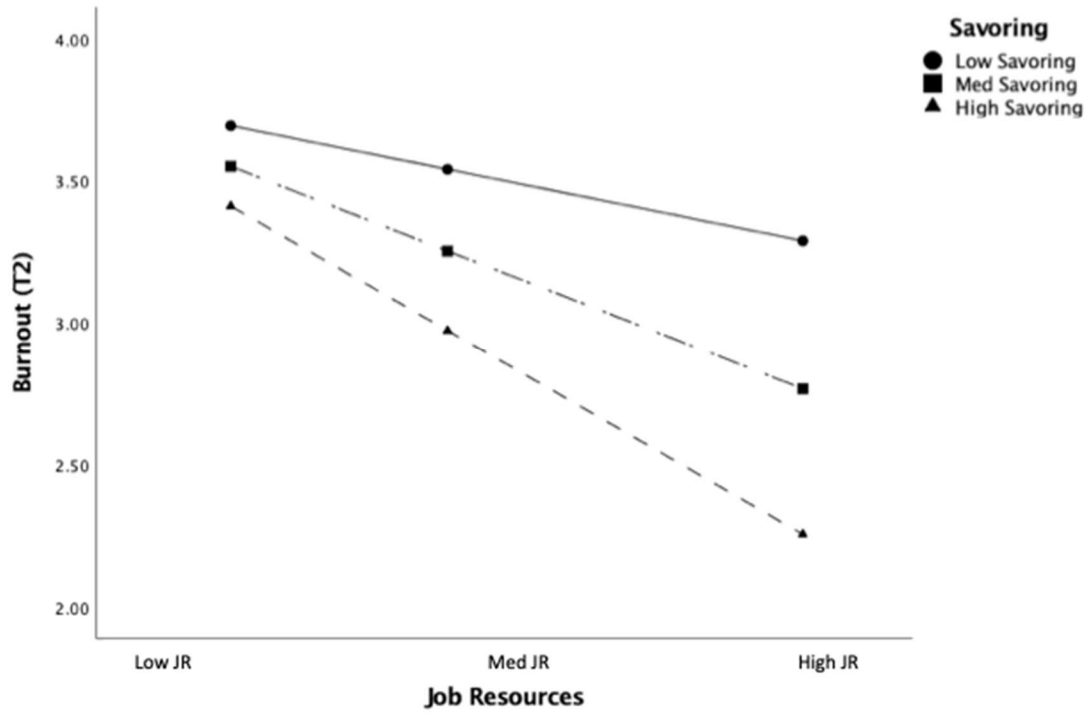


Figure 9.

The interaction between Time 1 job resources and savoring predicting Time 2 burnout across levels of Time 1 challenge demands

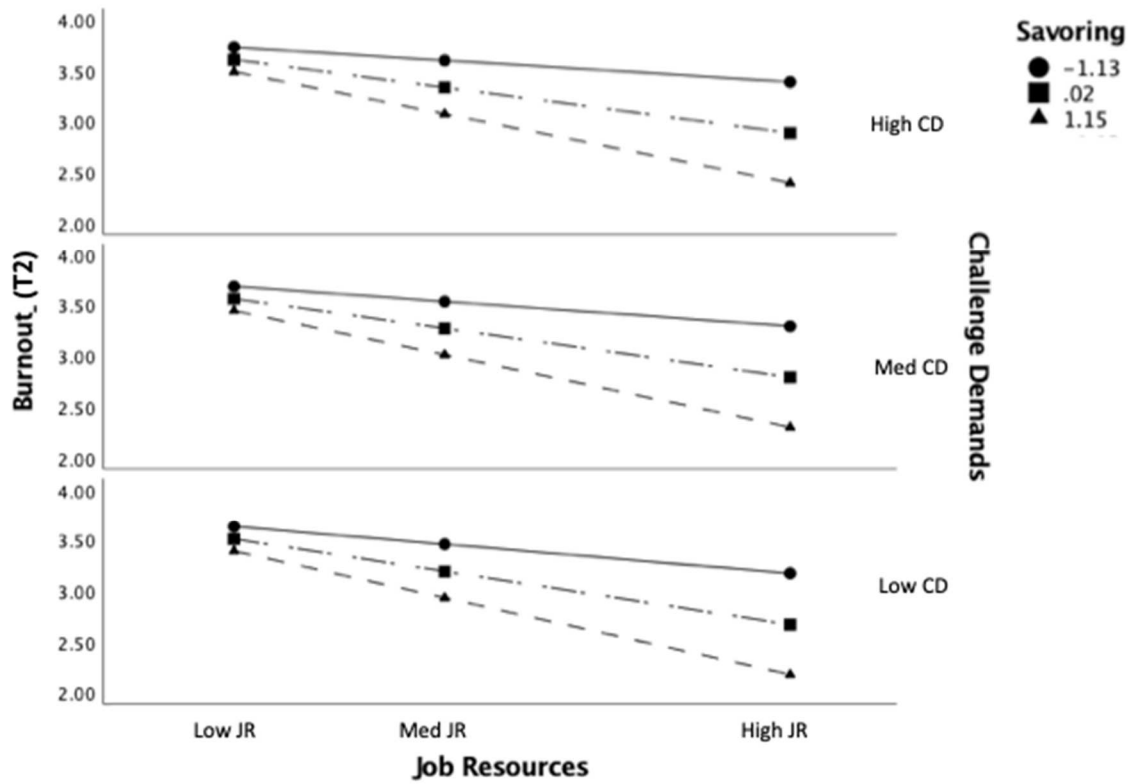


Figure 10.

The interaction between job resources and challenge demands predicting engagement at Time 1

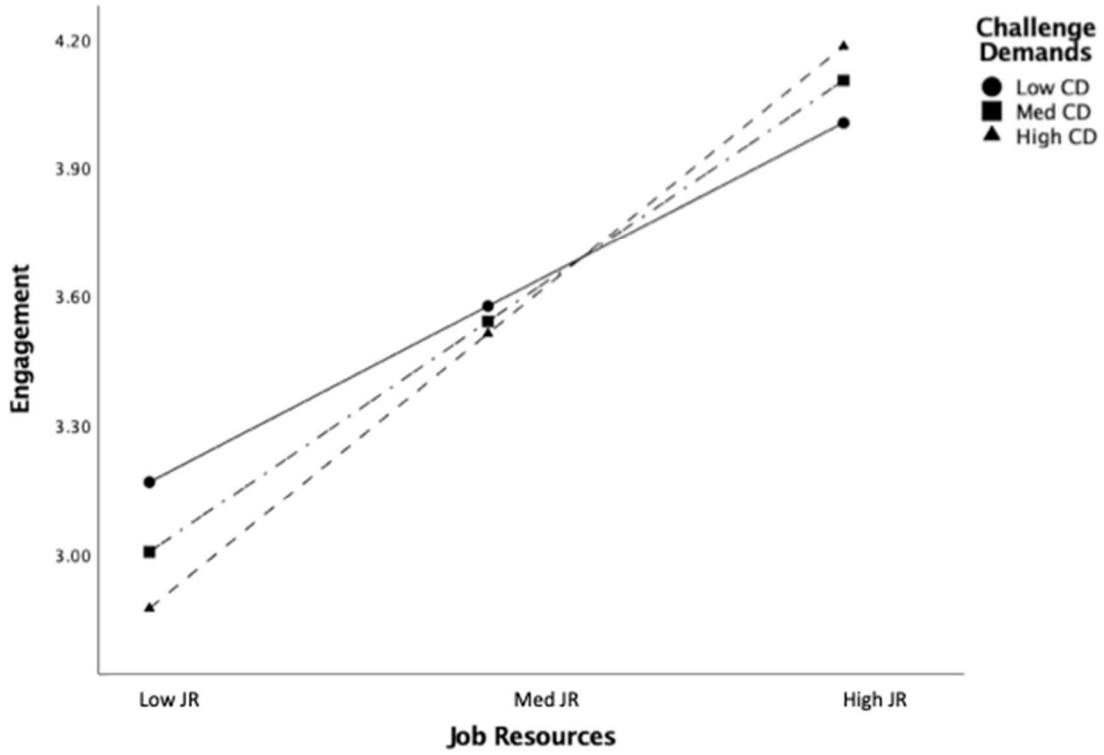


Figure 11.

Interaction between personal resources and challenge demands predicting burnout at Time 1

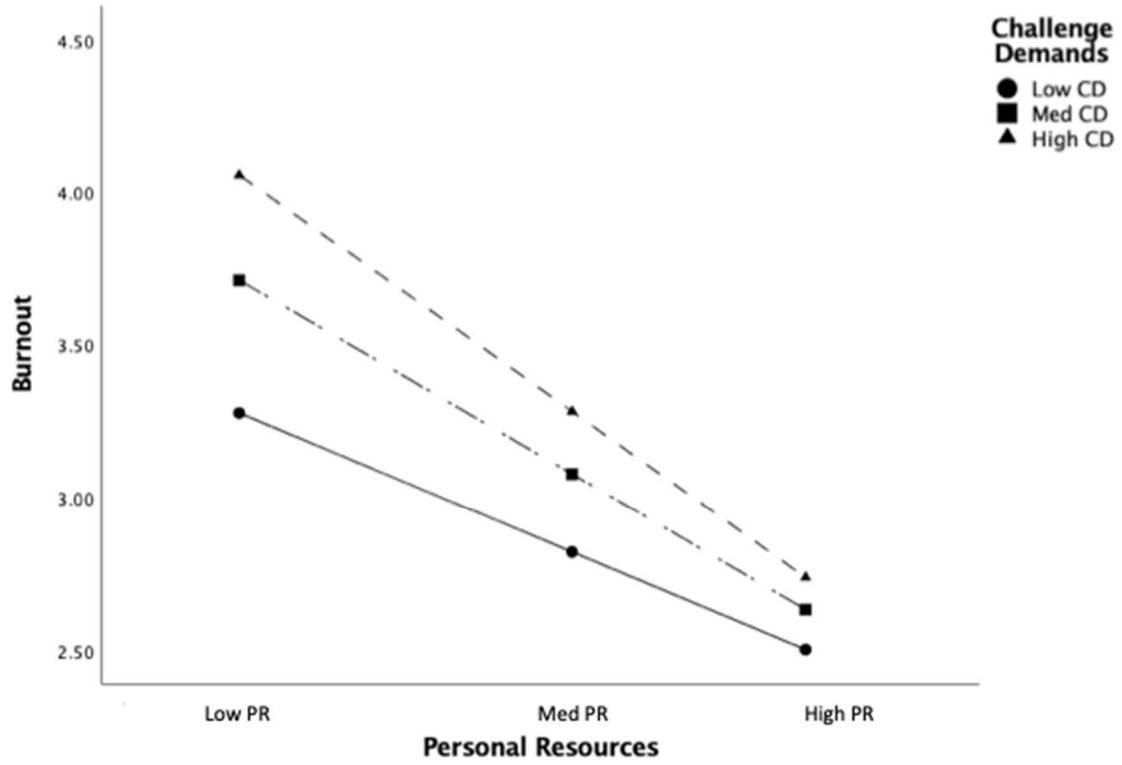


Figure 12.

The interaction between personal resources and hindrance demands predicting engagement at Time 1

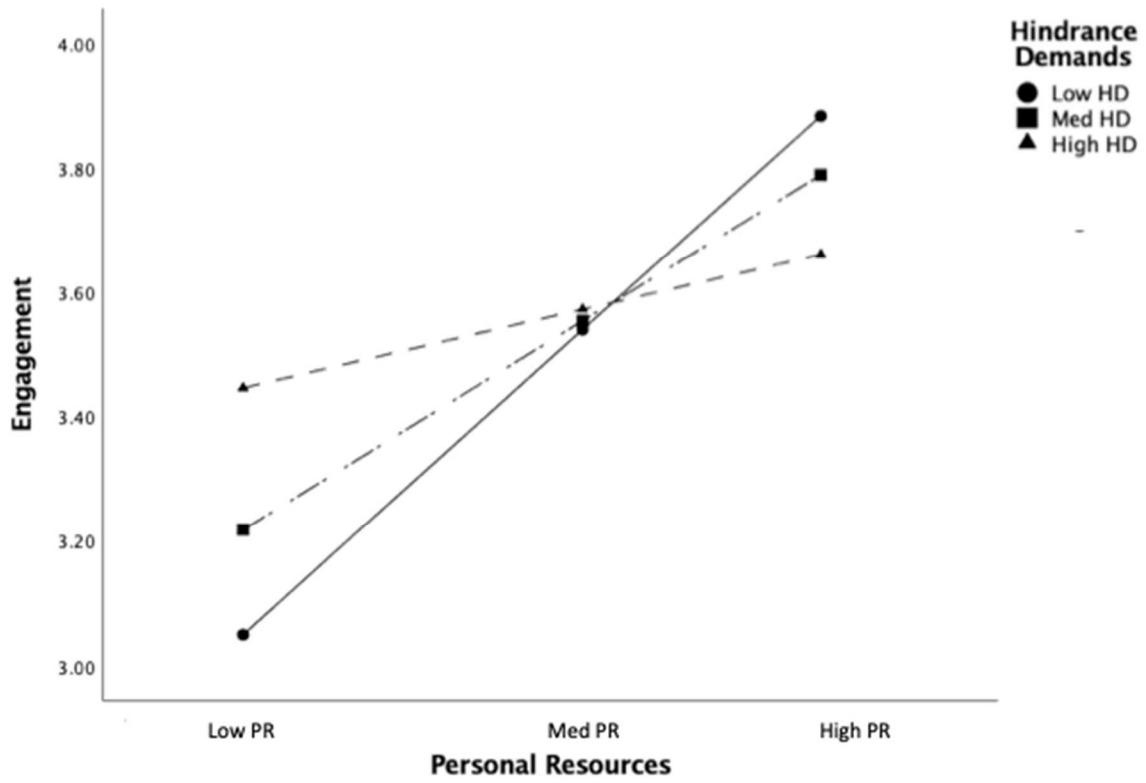


Figure 13.

The interaction between job resources and hindrance demands predicting engagement at Time 1

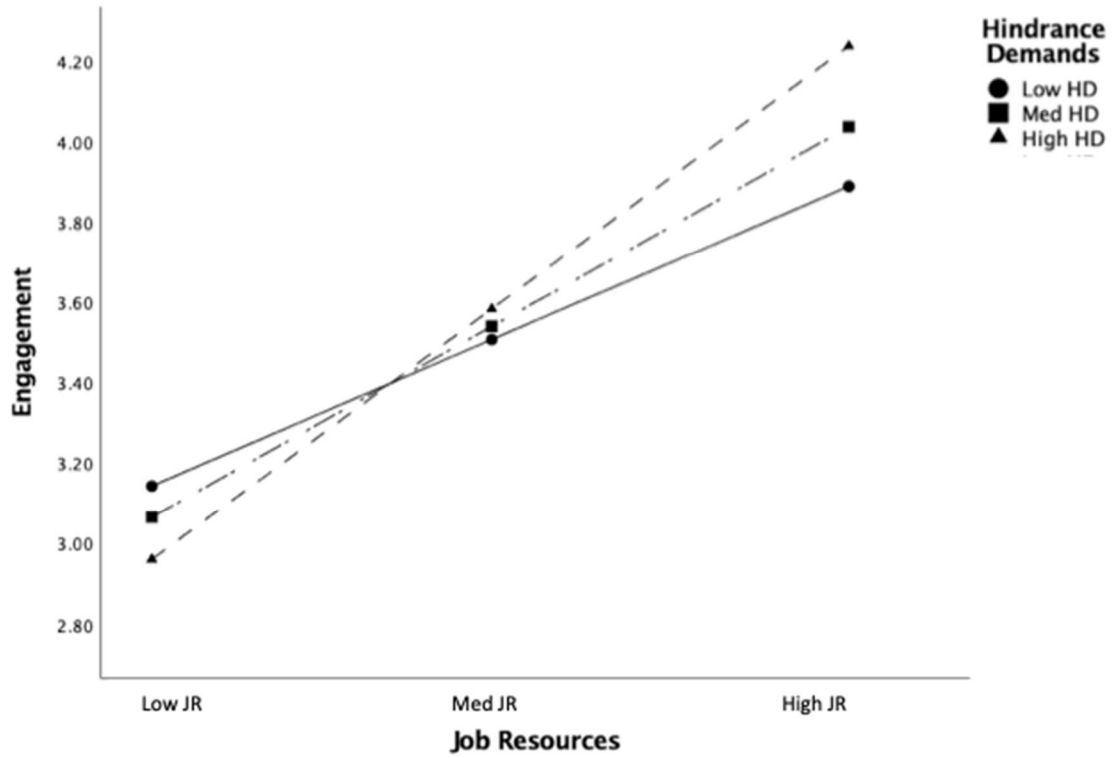
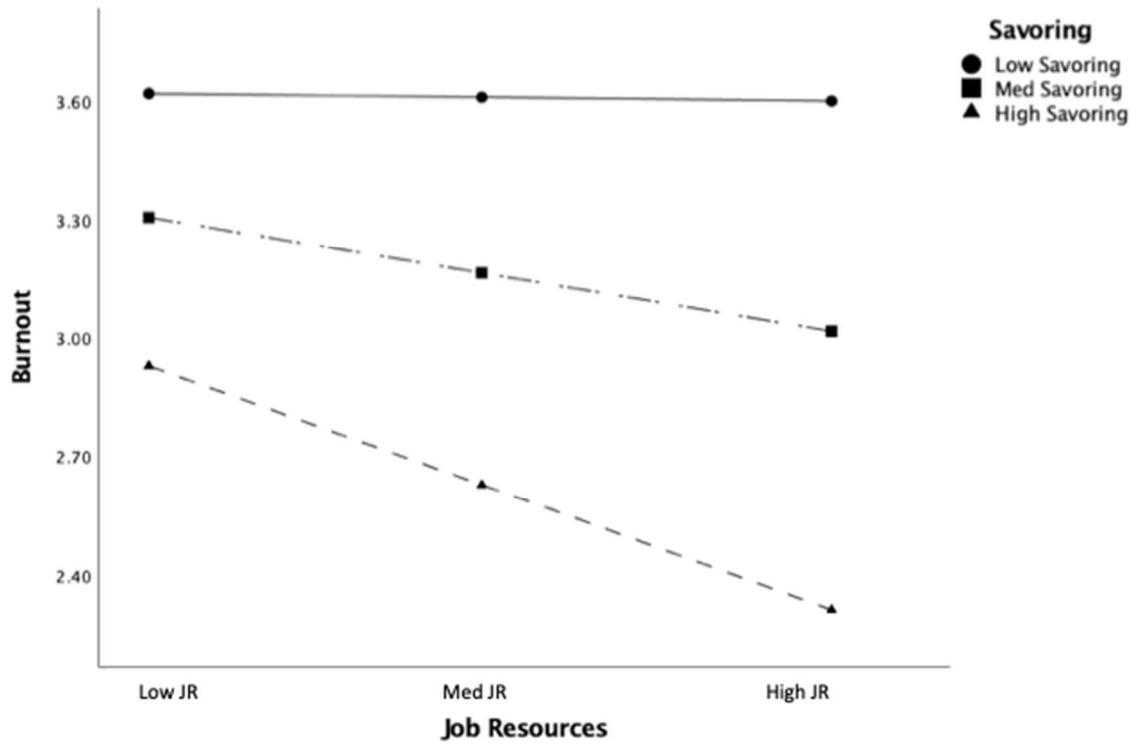


Figure 14.

The interaction between job resources and savoring predicting burnout at Time 1



APPENDICES

APPENDIX A

Challenge/ Hindrance Measure

Instructions

In the last month, how often have you experienced the following?

Scale: 1 to 5 (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = almost always)

Challenge Demands

1. I had to complete a lot of hard work.
2. I had to work very hard.
3. I had time pressure.
4. I had to perform complex tasks.
5. I had to multitask my assigned projects.
6. I had high levels of responsibility.

Hindrance Demands

1. I had to deal with administrative hassles.
2. I experienced bureaucratic constraints to completing work (red tape).
3. I received conflicting instructions and expectations from my boss or bosses.
4. I had unclear job tasks.
5. I received conflicting requests from my supervisor(s).
6. I had disputes with coworkers.
7. I had to deal with office politics.

APPENDIX B

Job Resources

Instructions

In the last month, how often have you experienced the following thoughts and feelings?

Scale: 1 to 5 (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = almost always)

Autonomy

1. I have freedom in carrying out my work activities.
2. I have influence in the planning of my work activities.
3. I have an influence on the pace of work.
4. I can decide how my work is executed.
5. I can interrupt my work for a short time if I find it necessary to do so.
6. I can decide the order in which I carry out my work on my own.
7. I participate in the decision about when something must be completed.
8. I personally decide how much time I need for a specific activity.
9. I can resolve problems arising in my work myself.
10. I can organize my work myself.
11. I can decide on the content of my work activities myself.

Social Support

1. Can you count on your colleagues when you encounter difficulties in your work.
2. Can you ask your colleagues for help, if necessary.
3. Do you get on well with your colleagues.
4. Do you have conflicts with your colleagues.
5. In your work, do you feel appreciated by your colleagues.
6. Do you experience any aggressiveness from colleagues.
7. Are your colleagues friendly towards you.
8. Is there a good atmosphere between you and your colleagues.
9. Have there been any unpleasant occurrences between you and your colleagues.

Feedback

1. I receive sufficient information on the purpose of your work.
2. I receive sufficient information on the results of your work.
3. My work gives me the opportunity to check on how well I am doing my work.
4. My work provides me with direct feedback on how well I am doing my work.
5. My superior informs me about how well I am doing me work.
6. My colleagues inform me about how well I am doing my work.
7. In my work, I have access to sufficient data and information.

Opportunities for growth

1. My job offers me the possibility to progress financially.
2. My current job improves my chances and opportunities on the job market.
3. My organization gives me opportunities to follow training schemes and/or

courses.

4. My job gives me the opportunity to be promoted.

Leader Member Exchange

1. Do you know where you stand with your leader...did you usually know how satisfied your leader was with what you did?
1. Rarely 2. Occasionally 3. Sometimes 4. Fairly often 5. Often
2. How well did your leader understand your job problems and needs?
1. Not a bit 2. A little 3. A fair amount 4. Quite a bit 5. A great deal
3. How well did your leader recognize your potential?
1. Not at all 2. A little 3. Moderately 4. Mostly 5. Fully
4. Regardless of how much formal authority he/she has built into his/ her position, what were the chances that your leader would use his/ her power to help you solve problems in your work?
1. None 2. Small 3. Moderate 4. High 5. Very high
5. Again, regardless of the amount of formal authority your leader has, what were the chances that he/she would "bail you out," at his/ her expense?
1. None 2. Small 3. Moderate 4. High 5. Very high
6. I had enough confidence in my leader that I would defend and justify his/ her decision if he/she were not present to do so?
1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree
7. How would you characterize your working relationship with your leader?
1. Extremely ineffective 2. Worse than average 3. Average 4. Better than average 5. Extremely effective

APPENDIX C

Personal Resources

Psychological Capital

Instructions

Below are statements that describe how you may think about yourself right now. Use the following scales to indicate your level of agreement or disagreement with each statement

Scale: 1 to 7(1= Strongly disagree, 2= Disagree, 3= Somewhat disagree, 4= Neither agree nor disagree, 5= Somewhat agree, 6= Agree, 7= Strongly agree)

Self-Efficacy

1. I feel confident analyzing a long-term problem to find a solution.
2. I feel confident in representing my work area in meetings with management.
3. I feel confident contributing to discussions about the company's strategy.
4. I feel confident helping to set targets/goals in my work area.
5. I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.
6. I feel confident presenting information to a group of colleagues.
7. If I should find myself in a jam at work, I could think of many ways to get out of it.

Hope

1. At the present time, I am energetically pursuing my work goals.
2. There are lots of ways around any problem.
2. Please select "Somewhat Disagree" for this item
3. Right now I see myself as being pretty successful at work.
4. I can think of many ways to reach my current work goals.
5. At this time, I am meeting the work goals that I have set for myself.

Resilience

1. When I have a setback at work, I have trouble recovering from it, moving on.
2. I usually manage difficulties one way or another at work.
3. I can be "on my own," so to speak, at work if I have to.
4. I usually take stressful things at work in stride.
5. I can get through difficult times at work because I've experienced difficulty before.
6. I feel I can handle many things at a time at this job.

Optimism

1. When things are uncertain for me at work, I usually expect the best.
2. If something can go wrong for me work-wise, it will.
3. I always look on the bright side of things regarding my job.
4. I'm optimistic about what will happen to me in the future as it pertains to work.
5. In this job, things never work out the way I want them to.
6. I approach this job as if "every cloud has a silver lining."

APPENDIX D

Burnout

Instructions

In the last month, how often have you experienced the following thoughts and feelings?

Scale: 1 to 5 (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = almost always)

Exhaustion

1. I feel emotional drained from my work
2. Working all day is a strain for me
3. I feel burned out from my work
4. I feel tired when I get up in the morning and have to face another day on the job
5. I feel used up at the end of the workday

Cynicism

1. I have become less enthusiastic about my work
2. I doubt the significance of my work
3. I have become more cynical about whether my work contributes anything
4. I have become less interested in my work since I started this job

Efficacy

1. I can effectively solve the problems that arise in my work
2. I have accomplished many worthwhile things in this job
3. I feel I am making an effective contribution to what this organization does
4. In my opinion, I am good at my job
5. I feel exhilarated when I accomplish something at work
6. At work, I feel confident that I am effective at getting things done

APPENDIX E

Engagement

Instructions

In the last month, how often have you experienced the following thoughts and feelings?

Scale: 1 to 5 (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = almost always)

Vigor

1. At my work, I feel bursting with energy.
2. At my job, I feel strong and vigorous.
3. When I get up in the morning, I feel like going to work.

Dedication

1. I am enthusiastic about my job.
2. My job inspires me.
3. I am proud of the work that I do.

Absorption

1. I feel happy when I am working intensely.
2. I am immersed in my work.
3. I get carried away when I am working.

APPENDIX F

Savoring

Please rate your agreement with the following statements.

Scale: 1 to 7(1= Strongly disagree, 2= Disagree, 3= Somewhat disagree, 4= Neither agree nor disagree, 5= Somewhat agree, 6= Agree, 7= Strongly agree)

Anticipating

1. I get pleasure from looking forward
2. I don't like to look forward too much
3. I can feel the joy of anticipation
4. Anticipating is a waste of time
5. I can enjoy events before they occur
6. It is hard to get excited beforehand
7. I can feel good by imagining outcome
8. I feel uncomfortable when anticipate

Savoring the Moment

1. I know how to make the most of good time
2. I find it hard to hang onto a good feeling
3. I can prolong enjoyment by own effort
4. I am my own 'worst enemy' in enjoying
5. I feel fully able to appreciate good things
6. I can't seem to capture joy of happy moments
7. I find it easy to enjoy self when want to
8. I don't enjoy things as much as should

Reminiscing

1. I enjoy looking back on happy times
2. I don't like to look back afterwards
3. I can feel good by remembering past
4. I feel disappointed when reminisce
5. I like to store memories for later recall
6. Reminiscing is a waste of time
7. It is easy to rekindle joy from happy memories
8. It is best not to recall past fun times

APPENDIX G

Attention Checks

Please follow the instructions

1. Please select “Agree” for this item
2. Please select “Somewhat descriptive of me” for this item
3. Please select “Disagree” for this item
4. Please select “Strongly agree” for this item
5. Please describe what you think this study is about
6. How honestly were you able to respond to this survey?

APPENDIX H

Significant Work Event

1. Have you experienced any significant work events in the last month? (E.g., merger, layoffs, change in management)
(Yes or No)
2. If Yes, please describe the event(s)
(Fill in the Blank)