DISSERTATION

EMOTIONAL LABOR AT WORK AND RECOVERY AFTER WORK: A MULTILEVEL DAILY STUDY OF THE DIFFERENTIAL EFFECTS OF SURFACE AND DEEP ACTING ON RECOVERY EXPERIENCES

Submitted by

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ABSTRACT

EMOTIONAL LABOR AT WORK AND RECOVERY AFTER WORK: A MULTILEVEL DAILY STUDY OF THE DIFFERENTIAL EFFECTS OF SURFACE AND DEEP ACTING ON RECOVERY EXPERIENCES

The purpose of this study was to explore how daily experiences of self-regulation at work spilled over into after-work experiences. Specifically, this study examined whether the relationship between daily emotional labor at work and after-work experiences (recovery experiences) was mediated by perceived gratitude and/or motivation to detach from work. To investigate my hypotheses, I conducted an experience sampling study with Amazon's Mechanical Turk (Mturk) with participants in the service-providing industry to better understand the process of emotional labor. This study heeds the call to understand better daily surface-acting and deep-acting relationships with variables outside of work and to explore the differential effects of different forms of emotional labor on recovery through more novel mediators. Contrary to expectations, many hypothesized relationships were not supported, suggesting that predicting recovery outcomes through emotional labor processes may be more complex than initially theorized. Nonetheless, a subset of findings indicates that surface acting and deep acting produce differential effects; specifically, surface acting appeared to more negatively impact recovery, whereas deep acting sometimes helped cultivate more recovery experiences—though these effects were inconsistent. The study further highlights that perceived customer gratitude and motivation to detach from work operate in nuanced ways, underscoring the complexity of pinpointing exact pathways to successful recovery. Taken together, the results challenge

simplistic views of emotional labor as purely detrimental or beneficial and encourage more distinct theoretical and applied perspectives. These findings may prompt practitioners and organizational leaders to rethink emotional demands and how at-work experiences impact after-work experiences.

DEDICATION

This work is dedicated to the nontraditional students who have come before me. Without their courage and dedication I could not have become a scholar, accessed education or succeed the way I have. The McNair Scholars Program, a federal TRIO program funded by the U.S. Department of Education, is an educational opportunity outreach program designed to motivate and support students from disadvantaged backgrounds. The McNair community, financial support, and training changes lives and allows those historically excluded from science to change the world – I literally could not have done this without you.

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INTRODUCTION

Unfortunately, employees are feeling more negative emotions at work than in the past (e.g., Lockett, 2023). What happens at work does not stay at work, and the boundaries between work and non-work are more permeable than ever (e.g., Sonnentag et al., 2022). Works spills into non-work, which may have significant consequences for employee health and well-being (e.g., Bakker & Demerouti, 2017). Behavior and experiences after the work day is done, such as using substances, can carry serious repercussions for the employee, the organization (e.g., Frone, 2019), and our broader society (Buvik et al., 2018). However, suppose employees engage in healthier post-work experiences. In that case, there is a chance to reduce the detrimental effects of other after-work choices and promote employee well-being and organizational outcomes (Sonnentag & Fritz, 2007).

Work recovery has become a highly relevant topic of interest for both researchers and practitioners (e.g., World Health Organization, 2019) as work-related health outcomes and burnout are increasingly reported. To communicate our worth in the science of work and non-work, Industrial-Organizational (I/O) Psychology should focus on identifying the factors that lead to desirable after-work behaviors and experiences (e.g., doing a hobby or reading a book). Work factors may be a source of stress that predicts after-work experience. Recovery experiences could replace undesirable behaviors (e.g., substance abuse) or buffer the adverse effects of work stress (Bennett et al., 2018; Sonnentag, 2018). Experiences of recovery, such as psychological detachment from work while reading a book after one's shift, can help employees feel rested and ready for another day on the job (e.g., Steed et al., 2021). Understanding recovery experiences is critical because they play a "crucial intervening role in the relationship between

stressful work characteristics on the one hand, and health, well-being, and performance capability on the other" (Sonnentag & Geurts, 2009, p. 2). However, there are various theories, mixed evidence, and emerging advanced methodologies that suggest the relationship between work and after-work recovery is not as simple as once hypothesized (Chan et al., 2022). Overall, more work needs to be done to fully understand when employees' recovery is most likely to happen.

Goal of the Proposed Study

The main goal of this research is to complement existing work on after-work recovery by examining emotional labor (the behavior of effortfully displaying positive emotions, hiding negative emotions, or changing one's emotions; Hochschild, 1983) as an antecedent of after-work recovery experiences among service employees (e.g., customer service representatives and restaurant servers). Work recovery experiences are the psychological experiences or states people experience after work (Sonnentag & Fritz, 2007). Service-providing jobs have higher emotional display requirements (a type of job demand; Bakker et al., 2023), requiring employees to enact behaviors to respond to that demand (e.g., emotional labor; Bakker et al., 2023) more than others. This is seen in commonly used phrases like, "We give service with a smile" (Grandey & Gabriel, 2015) and may be necessary for maintaining provider-client relationships. Meeting these emotional demands may be necessary for work but also increases the need to recover from work (e.g., Xanthopoulou et al., 2017), perhaps in the form of increased recovery experiences, like psychologically detaching from work. Extending this line of thinking, emotional labor may be a meaningful predictor of after-work recovery experiences in service employees.

Service-providing employees hold some of the most common jobs in the U.S. workforce. Customer service representatives represent almost 3 million jobs (Bureau of Labor Statistics, 2021), while restaurant employees represent 15.3 million (National Restaurant Association, 2019). A better understanding of after-work factors like recovery experiences can dramatically impact a large portion of the U.S. working population who are at high risk for harmful after-work behaviors like increased alcohol use (Frone, 2019). Additionally, this work may provide value to relevant stakeholders such as organizations, coworkers, and clients by improving customer satisfaction and buffering employees against negative health outcomes (Frone, 2019). Overall, research on emotional labor and after-work recovery has the potential to impact millions of employees in a high-demand industry.

Novelty

Although attention to frontline workers is not new in I/O Psychology, frontline workers must always be a critical area of focus for I/O Psychology since they are the ones who have direct contact with customers. Scholars agree that we should continue to shift our focus to application-relevant research to address those doing the labor and divest from highly professional or manager roles (e.g., Ones et al., 2017). Typically, I/O Psychology oversamples managerial, salaried, and professional roles while neglecting the first-line and low-to-medium skilled workers (e.g., Bergman & Jean, 2016). It is essential to ensure that these workers are properly supported to deliver excellent customer service while also protecting their safety and well-being. By prioritizing the needs of frontline workers, businesses can maintain a healthy and productive workforce that is capable of meeting the demands of their customers and achieving long-term success.

Work in emotional labor has rapidly grown since 2015 (Gabriel et al., 2023). Yet, this study extended recent advancements by 1) uniquely measuring Deep Acting (DA) and Surface Acting (SA) as a predictor rather than an outcome (which is historically the most used variable type), 2) expanding the criteria used in emotional labor processes, and 3) moving beyond the potentially flawed theoretical approaches (i.e., ego depletion) to understanding emotional labor processes (i.e., when a job demand, such as display requirements, require an employee to engage in emotional labor). Most historical work has focused on three main outcomes of emotional labor: 1) performance, 2) strain, and 3) job attitudes (Gabriel et al., 2023). However, some researchers are expanding our understanding of the costs and possible gains of emotional labor. For example, Sayre et al. (2020) have shown that engaging daily in emotional labor may lead to the psychological experiences of ego depletion (i.e., self-control reducing limited resources for future self-control; Baumeister et al., 1998) and motivation to detach from work, ultimately helping to explain daily alcohol use. The present work extends these findings by incorporating recovery experiences as another outcome of the daily emotional labor process. It is just as important to understand when positive after-work experiences (e.g., recovery) occur as negative ones so we can better understand the causal mechanisms that lead to desirable outcomes.

Further, the present study aimed to extend our understanding of recovery such that the study of recovery experiences is rarely captured on a daily basis (e.g., Xanthopoulou et al., 2017) and measured in an independent manner. Additionally, most research on organizational factors that predict after-work recovery experiences has an overreliance on cross-sectional designs; a recent review of the literature suggests that within-person and longitudinal designs are rarely used to study organizational antecedents of recovery (Sonnentag et al., 2022). Previous studies have not delved deep enough into understanding how individuals recover from work-related

stressors or demands because they did not collect data frequently enough (i.e., on a daily basis, within-person measures). By measuring daily recovery experiences and each type of experience independently, researchers can gain a more nuanced and accurate understanding of how people manage and recover from the daily challenges and demands of their jobs.

Additionally, this project aimed to answer the call for research to examine positive experiences associated with emotional labor (Gabriel et al., 2023; Humphrey et al., 2015). Many studies exploring the causal mechanisms of after-work behaviors tend to focus on negative work-related experiences (e.g., the experience of emotional exhaustion) and have yet to explore positive experiences, such as perceived gratitude. For example, the foundational emotional labor research has concentrated on the employee-customer relationship (Grandey & Gabriel, 2015) and its negative outcomes; most has focused on outcomes such as burnout (e.g., Kammeyer-Mueller et al., 2013), yet little work has been conducted on the benefits of emotional labor. This "brighter" view of emotional labor is just emerging and deserves more attention (Gabriel et al., 2020; Humphrey et al., 2015; Shoshan & Venz, 2021). Accordingly, the present work expanded on these findings by examining customer gratitude perceived by the service employee during work as a possible positive outcome of emotional labor and a possible mediator between emotional labor and after-work experiences.

Finally, through the lens of the Job Demands-Resources theory (JD-R; Bakker & Demerouti, 2014), emotional labor is a costly behavior that happens in response to the job demands of emotional display requirements and reduces recovery experiences. However, the impact of emotional labor on recovery is much more complex and likely lies in the differential outcomes of distinct types of emotional labor behaviors. Only a handful of studies have attempted to understand daily emotional labor, and the differential effects of SA and DA on a

recovery experience highlight the complexity of the process. The overreliance on one type of recovery experience (e.g., psychological detachment) as the criterion variable, or measuring a total sum of experiences, has limited our understanding. Yet, even with a strong focus on psychological detachment within the research, there is still a call to investigate the factors that influence the extent to which job demands and behaviors at work can affect psychological detachment (Sonnentag, 2012; Sonnentag & Fritz, 2015). JD-R would suggest that resource loss in SA and DA could lead to a resource loss spiral, and therefore, recovery, a resource-gaining experience, may not be able to occur (Bakker et al., 2023). However, mixed results suggest that may not always be the case (Bakker et al., 2023). The process from emotional display requirements to emotional labor does not paint a simple picture of how it can lead to after-work recovery. This study aimed to disentangle the emotional labor process by looking at the differential effects of two types of emotional labor behaviors while independently measuring recovery experiences, with novel mediators explaining the process.

Background

Emotional Labor

Emotional labor is a concept that many, even those who do not know the academic jargon, are intimately familiar with - managing our emotional displays in order to keep our jobs. It is a behavior that includes the effortful display of positive emotions, hiding negative emotions, or changing one's emotions (i.e., emotional labor) as necessitated by one's job obligations (Chi & Chen, 2019; Grandey & Melloy, 2017; Zhan et al., 2016). Emotional display rules are in every occupation, but in the service industry, they are often summarized as giving service with a smile (Grandey & Gabriel, 2015). Emotional Regulation theory suggests that employees will respond to the emotional display rules with emotional labor (Gross, 1998). Some organizations and jobs

may have a higher interaction rate with the public or customers, increasing the demand to display job-appropriate emotions for their customer interactions (Gabriel et al., 2023). These emotional labor obligations are rooted in an organization's emotional display rules (Grandey, 2000; Hochschild, 1983) and vary based on why an employee may be motivated to engage in such behaviors (Bolton & Boyd, 2003). For example, an employee may be motivated to engage in emotional labor to receive tips (i.e., financial rewards) or ensure a customer returns (i.e., social rewards; Bolton & Boyd, 2003). Further, evidence suggests that emotional labor positively affects the organization's bottom line by encouraging customer loyalty (e.g., Luong, 2005) or, if employees do not engage in emotional labor, negative emotions can discourage returning customers (Smith & Bolton, 2002). Emotional labor can reward the employee, too, such as keeping one's job (Grandey & Sayre, 2019). Overall, employees engage in emotional labor behaviors to meet their job role demands (i.e., the emotional display requirements of their organization) and produce outcomes that are beneficial primarily to the organization.

It is clear that emotional labor is helpful for the organization's bottom line (e.g., Luong, 2005) but, sadly, damaging to an employee's well-being. With the impact of emotional labor extending beyond the workplace and into an employee's personal life, many took on the call to advance our understanding of the emotional labor process (see Hülsheger & Schewe, 2011 for meta-analytic trends; see Gabriel et al., 2023 for a recent review). Most of these studies tried to explore what caused emotional labor or what events or interactions with customers predicted emotional labor. When research instead explored the outcomes of emotional labor, the research concentrated on the negative consequences for employees, particularly their well-being (Grandey & Gabriel, 2015; Grandey et al., 2023; Hochschild, 1983). The evidence suggests that participating in emotional labor may negatively impact job satisfaction and increase burnout

(Grandey, 2000). Further, emotional labor may promote job withdrawal behaviors (Grandey, 2000) and increase substance use (Grandey et al., 2019; Sayre et al., 2020). Overall, there is an established relationship between high levels of emotional labor and negative well-being consequences for employees.

In contrast, more recent work is opposing this dominant focus by exploring how emotional labor can provide employees with benefits and move beyond the classic criteria of exhaustion or negative well-being (e.g., Gabriel et al., 2023). Overall, emotional labor's effortful process besets employees with various possible consequences. To gain a comprehensive understanding of the holistic effects of emotional labor, it is essential to go beyond examining commonly studied predictors of health, such as job satisfaction, burnout, and work withdrawal (Grandey, 2003; Judge et al., 2009; Scott & Barnes, 2011). Instead, we should delve into how emotional labor directly influences health-related experiences that could buffer the impact of the emotional labor process (i.e., emotional job display requirements and emotional labor behaviors) on outcomes such as after-work recovery.

Around 2015, emotional labor research was considered stalled (Grandey & Gabriel, 2015), with one rationale being the conundrum of mixed results. The variety of possible outcomes and mixed findings may be due to emotional labor's conceptualization and measurement with respect to temporal effects (e.g., Hülsheger & Schewe, 2011). Typically, between-person perspectives are used to measure emotional labor (Grandey & Gabriel, 2015), likely due to the newness and increasing popularity of within-person measurement (Gabriel et al., 2019). However, this may not fit the construct's dynamic process well (e.g., Judge et al., 2009). In light of this, some researchers have started to explore the within-persons process, examining daily emotional labor in comparison to a person's average level of emotional labor

(e.g., Sayre et al., 2020; Xanthopoulou et al., 2017). Recent work suggests that emotional labor varies within person, as do its dimensions of DA and SA (described further below; Scott & Barnes, 2011). Following these advancements in the understanding of emotional labor, this proposed study examined emotional labor on a daily basis.

Specific Forms of Emotional Labor: Surface Acting vs. Deep Acting

As noted above, one source of the equivocal findings in emotional labor research can be attributed to studying the overall amount of emotional labor behaviors, not the amount of specific types or strategies of emotional labor (Gabriel et al., 2023; Grandey & Gabriel, 2015). Within this body of literature, there are two main forms of emotional labor: 1) Deep Acting (DA), which is effortfully changing actual emotions to meet the display requirements, and 2) Surface Acting (SA), which is effortfully modifying one's behavior to display the proper emotions without modifying internal emotions (Grandey, 2000; Hochschild, 1983). According to Emotional Labor theory (Grandey, 2000), employees use these emotional labor strategies during service encounters to adhere their emotional reactions to display rules; SA and DA are employed in response to display requirements (i.e., job demands) of the organization to modify one's display of emotions (e.g., Diefendorff et al., 2005; Gross & John, 2003) and both strategies require "impulse control, suppression, and focused attention" (Sayre et al., 2020, p. 3). Overall, employees can use two emotional labor strategies, DA and SA, to respond to the demands of their jobs, and measuring a total amount does not fit the construct.

Differences in DA and SA

One thing that distinguishes DA from SA is the aspect of genuine emotion and the level of effort needed to complete that form of emotional labor. To modify one's genuine feelings (i.e., DA), an employee would engage in cognitive behaviors, such as reappraising the situation and

refocusing one's attention (Grandey & Sayre, 2019). To meet display rules with SA, which does not involve modifying one's genuine feelings, an employee must use other behavioral strategies, such as suppressing emotions, faking emotions, or amplifying emotional expressions (Grandey & Sayre, 2019). For example, a restaurant employee who has a negative interaction with a customer may feel angry or frustrated. However, if they were to display those negative emotions, they would not adhere to the display requirements of the restaurant. Therefore, the employee may engage in DA by willfully changing their internal emotions from negative to positive. Alternatively, the employee may engage in SA, pretending not to feel frustrated and displaying positive emotions as a farce.

When employees engage in SA, they must constantly monitor and feign emotional displays that do not align with their true feelings. This process is highly taxing as it demands a significant expenditure of energy, cognitive effort, and emotional resources, ultimately leading to a decline in employee well-being (e.g., Brotheridge & Lee, 2002). On the other hand, while DA also requires resource investment for reappraising emotions, some (Brotheridge & Grandey, 2002) argue that it is a more favorable approach compared to SA because it can still lead to reduced well-being, but is likely less demanding. As noted above, it is commonly suggested that SA is more likely to lead to adverse outcomes, and DA is more likely to lead to positive outcomes. However, there is a call to end this simplistic, high-level pitting of SA against DA and better understand the nuances between the types of emotional labor strategies (Gabriel et al., 2023).

According to meta-analytic research, although we have a collective understanding that emotional labor is a costly behavior, one of the muddiest areas of research is on well-being outcomes (Hülsheger & Schewe, 2011). Generally, researchers suggest that DA, compared to

SA, is "differentially associated with strain" (Côté, 2005, p. 510; e.g., Grandey, 2003). Some suggest that DA can increase physical illness (e.g., Johnson & Spector, 2007), while others say DA is not as exhaustive as SA (e.g., Huang et al., 2015). Some argue DA's presumed less harmful impact on well-being may be the case because DA minimizes the psychological costs associated with the disparity between genuinely felt emotions and expressed ones found in SA, thus safeguarding employee well-being (e.g., Deng et al., 2016). Still, the cumulative evidence on DA is not clear (Grandey & Sayre, 2019; Gabriel et al., 2023). Overall, conclusions about DA suggest that it may have less of a negative impact on well-being variables (e.g., Sayre et al., 2020). Still, its overall impact on well-being variables is less established than SA.

Although research suggests that the outcomes of DA can be unclear, there is more consistent evidence indicating that SA has adverse effects on both individual well-being and organizational outcomes (Hülsheger & Schewe, 2011). SA is regularly connected to impairment of cognitive performance (Goldberg & Grandey, 2007), quitting one's job (Chau et al., 2009), burnout (Kammeyer-Mueller et al., 2013), anxiety and sleep (Wagner et al., 2014). SA also has a consistent relationship with exhaustion and ego depletion (e.g., Brotheridge & Grandey, 2002). The stronger tie between SA and undesirable outcomes may be because SA occurs when the outward expression of emotion is changed, faked, or suppressed after the felt emotion that does not fit the emotional display rules is experienced so that the display matches the situational requirements (Brotheridge & Lee, 2003; Grandey, 2003). With SA, there is a discrepancy between one's genuine emotion and one's emotional display, which is considered to be very taxing on the employee (e.g., Hochschild, 1983; Morris & Feldman, 1996), may be noticed by the customer (Groth et al., 2009), and reduce interpersonal functioning (Gross & John, 2003).

Overall, there is more research to suggest that SA has a stronger negative influence on employee well-being and organizational outcomes than DA.

In summary, SA and DA are behaviors that occur in response to the job demands of emotional display rules. In general, scholars agree that SA is a behavior that is more likely to deplete resources, while DA is a behavior that also depletes resources but may be more likely to conserve or acquire new resources or at least not be as costly as SA. Even so, in the context of these differences between SA and DA, research has yet to fully understand how these strategies of emotional labor may be differentially linked to outcomes of interest, especially in the after-work and home environments (Grandey & Sayre, 2019; Xanthopoulou et al., 2017). More work is needed to understand when enacting SA or DA leads to desirable outcomes and what mechanisms help explain their differences.

Measurement of SA and DA

In the last ten to twenty years, many emotional labor studies only measured SA (Thomas et al., 2018) or measured the aggregated total sum of emotional labor behaviors (Haung et al., 2015). As noted above, DA and SA appear to have separate and distinct mechanisms and outcomes (e.g., Kammeyer-Mueller et al., 2013). Although SA and DA are conceptually different, they should not be studied in isolation (e.g., Haung et al., 2015). Of note, Gabriel and Diefendorff (2015) found that individuals have their own fluctuating amount of DA or SA, further suggesting that within-person measurement is most fitting for emotional labor. Therefore, this study will measure both SA and DA behaviors, without aggregating the two, at the within-person level.

Perspectives of Emotional Labor Process: Theories

There are two commonly used theoretical mechanisms that explain how the emotional labor process can lead to positive or negative outcomes for an employee: 1) authenticity and 2) resource gain and resource loss (i.e., the resource perspectives; Grandey & Gabriel, 2015); the resource gain and resource loss (i.e., resource perspectives on emotional labor) is the mechanism used in this study. Emotional labor behaviors always involve resource loss because they are an active experience that requires effort. Resource perspectives explain how the emotional labor process can bring positive and negative outcomes to an employee.

According to the resource perspective, daily DA may be more likely than SA to enable the preservation and potential acquisition of resources at work, enhancing the prospects for recovery after work. Conversely, daily SA can lead to a domino effect of undesirable outcomes, depleting employees' resources in the short term and impeding the recovery process. Below, I will highlight the historical foundation of such resource perspectives (i.e., Conservation of Resources, Job Demands-Resources, Work-Home Resources) in the context of emotional labor and discuss the strengths and weaknesses of each approach.

Conservation of resources. Conservation of Resources theory (COR; Hobfall, 1989) is one of the most common frameworks for emotional labor. Its strength lies in understanding how the emotional labor process can drain resources, protect resources, and/or promote resources (Brotheridge & Lee, 2002; Côté, 2005), and is the foundational perspective from which other theories regarding emotional labor come. One principle of COR argues that employees with resources to draw from are then able to use those resources or invest those resources to prevent resource loss (Hobfoll, 2001). Relying on this theory, COR could explain why regulating emotional displays at work, which uses resources, could lead to undesirable employee outcomes;

most of the emotional labor literature suggests that both SA and DA are costly such that they both require self-control (e.g., Baumeister et al., 2018; Grandey & Gabriel, 2015; Todderdell & Hollman, 2003).

An essential feature of COR theory is its broad definition of resources, such as things individuals value, including social support, positive social feedback, and financial compensation (Hobfoll, 1989). Halbesleben et al. (2014) provides a summary of resources within the organizational literature, including rewards and reinforcements (Lee & Ashforth, 1996; Shin et al., 2012), social support from supervisors, coworkers, organizations and customers (e.g., Chen et al., 2009; Diestel & Schmidt, 2012; Hochwarter et al., 2006; Xanthopoulou et al., 2009; Zimmerman et al., 2011), and recovery experiences (e.g., Davidson et al., 2010). Having a broad definition of resources is helpful so that they can be implemented in an individualized way (Hobfoll et al., 2018). However, critics of COR argue that a broad framework is a theoretical weakness because almost anything could be operationalized as a resource (Ganster & Rosen, 2013; Ganster & Perrewé, 2011; Thompson & Cooper, 2001), and primary authors of COR agree that further research is needed to clarify what is a resource (e.g., Hobfoll et al., 2018). One suggestion from these primary researchers is to integrate COR with other theories and frameworks to understand better the boundaries of what could function as a resource. Therefore, this study expanded the sole use of COR to explore it in conjunction with other theories (i.e., Job Demands-Resources theory and Work-Home Resource perspective) and mechanisms that may illuminate the consequences of emotional labor and its relationship with resources.

Job Demands-Resources theory. Job Demands-Resources theory (JD-R; Bakker & Demerouti, 2006) is a more specified resource perspective that can better explain the process of emotional labor. COR focuses on the general conservation of resources and resource gain, while

JD-R theory differentiates between demands and resources and specific job-related factors. JD-R suggests that attributes of one's job (i.e., emotional display requirements) can impact highly important outcomes such as work performance, employee well-being, and motivation (Sonnentag, 2017).

The impact of one's job attributes on various outcomes relies on two types of job characteristics: 1) job demands and 2) job resources. Demands include the "physical, psychological, social, or organizational aspects of a job" that require sustained cognitive or physical effort, which in turn have a psychological or physical cost (i.e., resource loss), which may lead to negative health and well-being outcomes (i.e., burnout, strain; Bakker & Demerouti, 2017, p. 274). Job resources assist employees in managing or meeting specific demands and in coping with potential costs, thereby aiding in achieving work goals related to reducing job demands or their associated costs (Demerouti et al., 2001). Resources include factors like coworker support (social support; Gross & John, 2003), skill variety, and supervisor or customer feedback. High job demands, when balanced with sufficient resources, can lead to positive outcomes like increased motivation and performance (Sonnentag, 2017). However, an imbalance where demands outweigh resources may result in negative consequences such as burnout and decreased well-being (Sonnentag, 2017).

The JD-R theory suggests that there are two distinct pathways through which job characteristics (i.e., demands and resources) influence outcomes (Demerouti et al., 2001). These processes operate independently and involve different sequences of events. The first is the pathway from job demands to negative outcomes, such as burnout and exhaustion. Ultimately, the outcome of this process is negative performance, suggesting that prolonged exposure to high job demands without sufficient resources can contribute to decreased work performance. The

second pathway is from job resources to positive outcomes. When employees have access to resources, they are more likely to experience work engagement. These processes operate independently, meaning that addressing job demands and enhancing job resources are both important for promoting employee well-being and performance. In the context of JD-R and of interest to the present study, emotional display requirements are the job demand, emotional labor is behavior used in response to that demand, and the outcome of interest is after-work recovery experiences.

Work-Home Resources. The Work-Home Resources perspective (W-HR; ten Brummelhuis & Bakker, 2012) is a specific extension of JD-R theory. Its strength is that it helps explain how the characteristics of work impact non-work experiences and after-work variables. W-HR suggests that those who lose resources during work will not have resources to use to meet the demands in future experiences. This model suggests that job demands have direct implications for personal resources. When resources are lowest, one's need for recovery is highest, but may not always happen (i.e., "the recovery paradox"; Sonnentag et al., 2022, p. 5). Further, a costly and high-demand day at work may spill over into after-work time and leave employees with insufficient resources to engage in recovery activities and experience recovery. This framework better explains the recovery paradox and how work characteristics can impact experiences at home and in non-work domains than JD-R and COR.

Clarifying the demands in the emotional labor process: Emotional Job Demands

Emotional demands arise from emotional interactions with individuals in the workplace, including people one works with or customers (de Jonge & Dormann, 2003); they are "work-related tasks that require emotional effort (e.g., having to do a lot of emotionally draining work)" (Van de ven et al., 2013, p. 1). Emotional job demands are one of the workplace factors that have

a long-standing relationship with adverse outcomes through the emotional labor process, such as substance use, strain, and work withdrawal (e.g., de Jonge et al., 2008). Specifically, the emotional display rules of an organization can be viewed as an emotional job demand that sparks the demanding process of emotional labor in which SA and/or DA behaviors are enacted (Schaufeli & Taris, 2014). Based on the definition of job demands, emotional display requirements are demanding because they require sustained effort (Baumeister et al., 2018; Grandey & Gabriel, 2015; Todderdell & Hollman, 2003); they necessitate that employees meet that demand likely through emotional labor. Historically, most scholars describe emotional labor as an intentional act, a process "by which the self intentionally alters its own responses, including thoughts, emotions, impulses, performance and behaviors, based on standards" (Baumeister & Vohs, 2016, p. 70). That said, one would expect the emotional labor process to lead to resource loss through the demand of emotional display requirements and the preceding emotional labor behaviors.

According to the resource mechanisms of emotional labor, employees engage in the resource-costly process of emotional labor in response to the demands of their job (i.e., emotional display requirements). Those with resource loss can end up in a resource loss spiral, where, like a ripple effect, more and more resources are lost in the future; "in this loss cycle, exhaustion is the cause of undesirable behaviors that undermine effective functioning" (Bakker, 2023, p. 8). For example, if one does more emotional labor behaviors at work than usual, they may be less likely to have the resources to engage in reading a book or going on a jog after work. Not getting the recovery experiences needed to recoup resources could lead to a reduced ability to perform well at home and at work. Therefore, when one engages in emotional labor, a costly experience, they could end up in a resource loss spiral - losing more and more resources.

However, emotional labor research does not paint a process as simple as this, as evidenced by the differential effects of SA and DA on exhaustion (Gabriel et al., 2023; Grandey & Sayre, 2019). As mentioned above, it may be the case that while both SA and DA are costly, SA may be more costly and more likely to lead to a resource loss spiral. While emotional labor has been traditionally viewed as a demanding process that depletes employee resources, recent perspectives emphasize the need to explore the flip side of the coin – identifying resources that may arise from emotional labor experiences. It is critical to understand that resource gains and recovery experiences may buffer against the stressors and demands of the workplace (Sonnentag, 2017). The causal mechanisms that explain the relationship between emotional labor and recovery experiences are critical to understanding. Following the Emotional Regulation theory (Gross, 1998), Emotional Labor theory (Grandey et al., 2023), and the resource perspective on emotional labor (i.e., Work-Home Resources; ten Brummelhuis & Bakker, 2012), I expected that daily engagement in DA and SA behaviors would have differential relationships with daily social resources (i.e., perceived customer gratitude) and motivation to detach from work during work, and furthermore, with daily recovery experiences after work.

Perceived Customer Gratitude

Perceived customer gratitude may be one of the resources that could buffer between emotional labor and outcomes for an employee and shed light on the positive side of emotional labor. Inherently, emotional labor is a social interaction. As mentioned above, previous emotional labor research has explored various social antecedents and outcomes of emotional labor (e.g., Ashforth & Humphrey, 1993; Brotheridge & Lee, 2003; Diefendorff & Richard, 2003; Diefendorff et al., 2005). Antecedent work has focused primarily on negative customer interactions (Grandey, 2000; Grandey et al., 2004) and found that those who interact with

customers more had higher levels of emotional labor (Brotheridge & Grandey, 2002). A more recent review shows that most of the literature primarily examined how negative outcomes, such as undesirable social events (e.g., uncivil customer reactions), influence the emotional labor process (Gabriel et al., 2023). Until recently, positive outcomes for the employee were not tested, and experts in this space have been calling for more research (e.g., Grandey and Gabriel, 2015). The scant research that has been done on positive outcomes of emotional labor shows that emotional labor can elicit positive customer responses (Gabriel et al., 2023) but has yet to deeply explore direct positive outcomes for the employee doing the emotional labor. Further, these outcomes are rarely linked to after-work experiences.

It is important to consider when and how emotional labor is more costly or good for employees and, at the same time, able to produce or maintain resources. Gong et al. (2020) state, "Prior research in emotional labor has primarily focused on investigating the direct link between employees' emotional labor and customer experiences" (p. 3). However, there is an important nuance to consider here: the work has been done on formalized customer feedback (e.g., feedback surveys, targeted research surveys) or returning customers, which are delayed forms of positive social feedback (Chi & Chen, 2019). For example, a returning customer could take days or weeks, and it may be the case that the returning customer does not interact with the same restaurant server or customer service representative when they return. A more timely and understudied outcome of an employee's emotional labor could be customer gratitude perceived by the employee (the emotional labor actor). Some observational work suggests that perceiving gratitude can improve emotions (Algoe et al., 2016; Algoe et al., 2010). However, this work has focused on romantic partners (e.g., Kindt et al., 2017). Little has been done to explore the

perception of customer gratitude from the viewpoint of the employee during the time of emotional labor (e.g., Kindt et al., 2017).

The W-HR perspective suggests that job resources, such as social support on the job, can safeguard and enhance employee well-being. Resource perspectives suggest that customer gratitude could function as a positive social resource (Côté & Morgan, 2002) and more recent research found that emotional labor may bring about social rewards (e.g., Sayre et al., 2020). In line with this thinking, emotional labor could be less costly in the long term for individuals if it garners resources at work, specifically daily perceived customer gratitude. If emotional labor could promote (perceived) social support from customers, it may give employees more resources to devote to after-work recovery behaviors to elicit more experiences, and reduce the resource-loss spiral.

Perceiving customer gratitude may be especially important in the emotional labor process. Resource perspectives suggest that if a resource is going to buffer the relationship between a job demand and outcome, it needs to match that type of demand (De Jong et al., 2008). In the literature on emotional job demands, research suggests emotional resources may be even more impactful in reducing the undesirable relationship between emotional job demands and after-work recovery, as compared to other resources (e.g., Loi et al., 2016). De Jong et al. (2008) found that emotional support is better suited to mitigate the impact of emotional job demands on well-being outcomes. Extending this line of thinking to the workplace, perceived customer gratitude refers to the perception that one's customer or client is grateful or appreciative towards the service employee. The perception of gratitude is a phenomenon that exists within the focal person (i.e., the employee doing emotional labor) and is likely a positive perception. Therefore, perceiving that a customer is grateful, framed as an emotional job

resource, is another causal mechanism that may help clarify the consequences of emotional labor on recovery experiences after work and shed light on positive outcomes of the emotional labor process.

Differential effects of SA and DA on perceived gratitude. Customers can detect employees' emotional labor (Gong et al., 2020) and are accurate in distinguishing authentic from faked emotional displays (Groth et al., 2009; Seger-Guttmann & Medler-Liraz, 2016). Customers' ability to detect faked emotional displays may impact how likely it is that perceived customer gratitude occurs in response to distinct emotional labor strategies. While in general, both SA and DA can lead to generic positive outcomes (e.g., keeping one's job) by meeting display requirements, customers may react more positively to DA, where emotions are not faked, and react not as positively to SA (Seger-Guttmann & Medler-Liraz, 2016). Sliter and colleagues (2010) argue that faked positive emotions can be detected by others, meaning customers may realize when an employee is employing SA and displaying inauthentic emotions. Of note, DA is more consistently associated with more positive social interactions (social rewards) to begin with (Brotheridge & Grandey, 2002) and may have a higher likelihood of inducing social rewards such as customer gratitude.

Further, SA may not get the same level of customer reaction as DA (Zhan et al., 2016). The use of DA amplifies favorable responses by the interaction partners (Côté, 2005), resulting in rewarding social encounters that can enhance employees' sense of efficacy and personal accomplishment (Brotheridge & Grandey, 2002) because they signal that employees are generally good at their job (Brotheridge & Lee, 2003). Relying on resource perspectives and the differential effect of DA, employees may end up in a resource gain spiral; a resource gain spiral is when "those with more resources are less vulnerable and will be capable of gaining more

resources in the future" (Silvan et al., 2021, p. 2). Given that past research has demonstrated that customers can perceive differences between SA and DA (Gong et al., 2020), I hypothesized that:

Hypothesis 1a: Daily engagement in SA at work will be negatively related to daily experiences of perceived customer gratitude

Hypothesis 1b: Daily engagement in DA at work will be positively related to daily experiences of perceived customer gratitude

Motivation to detach from work

The research conducted on the outcomes of emotional labor shows that emotional labor can elicit resource loss, evidenced by measures of depletion and need for recovery (Gabriel et al., 2023; Xanthopoulou et al., 2017). However, ego depletion (Baumeister, 1983), a common outcome variable of emotional labor, may not be best suited for this pursuit (e.g., Sayre et al., 2020). In summary, the general body of literature is inconclusive regarding the true effect of ego depletion (see Friese et al., 2019, for a review of these arguments). The standing body of emotional labor literature has yet to find strong evidence ego depletion is a good measure of the emotional labor process (e.g., Sayre et al., 2020). If we want to understand the causal mechanisms that explain the relationship between emotional labor and recovery experiences after work, we need to explore more mediators.

An alternative way to understand the consequences of emotional labor could be through using novel variables, such as motivation to detach from work, that align with the resource perspectives and other antecedents of the recovery process (i.e., need for recovery). Detachment is "the individual's perception of being removed from the work environment" (Etzion et al., 1998, p. 579). Motivation to detach from work is "the motivation to redirect attention and behavior" (Sayre et al., 2020, p. 607) away from work (Sonnentag & Fritz, 2007). Detachment

from work is a good thing; it is a common buffer between job stressors and demands and undesirable outcomes (e.g., Sonnentag & Fritz, 2015). When emotional labor occurs, employees may feel the motive to remove themselves from the demanding experience. In this line of thought, motivation to detach is an indirect measure of resource loss or demanding work; we can infer that resources are low and work is demanding because employees want to detach from work.

Differential effects of SA and DA on motivation to detach. DA and SA are both demanding experiences, and both use resources that may influence how much one is motivated to detach from work. According to many scholars (e.g., Brotheridge & Grandey, 2002), DA may be more favorable than SA as it could be less demanding. The process of SA is more strenuous, requiring a substantial outlay of energy, cognitive effort, and emotional resources. This, in turn, can result in a deterioration of employee well-being (Brotheridge & Lee, 2002). Therefore, it could be expected that SA is likely to lead to motivation to detach from work.

A few studies have explored the differential effects of SA and DA on motivation to detach and after-work recovery. Sayre et al. (2020), using the within-person approach, found that DA reduced one's motive to detach from work, therefore reducing the use of alcohol after work. In other words, employees who performed more DA did not feel as motivated to detach from work. In contrast, motivation to detach from work was not reduced when employees engaged in more SA than usual.

The motivation to detach construct is similar to a construct commonly studied in recovery literature: one's need for recovery. One's need for recovery is "the perception of urgency when depletion of energy reserves happens, which leads people to feel the need to have a pause from their demands" (Sinval et al., 2021, p. 1; Demerouti et al., 2007). When employees consistently

put effort into the demands at work, they may have a higher need to take a break from meeting those demands (e.g., Bakker et al., 2014; Kinnunen et al., 2010; Sonnentag & Fritz, 2007). Xanthopoulou et al. (2017) found that SA and DA had differential effects on one's need for recovery. Similarly, Grandey et al. (2019) suggest that SA is positively related to the need for recovery, while DA is negatively related to the need for recovery.

However, even if the need for recovery is higher, it does not mean that employees are more likely to detach from work; recovery may be less likely to occur when well-being is lower and recovery is most needed (e.g., Schulz et al., 2021; Xanthopoulou et al., 2017). This paradox mirrors the possibility of a resource loss spiral (Gabriel et al., 2023; Sayre et al., 2001). Extending the logic from need to recovery research, motivation to detach may be a similar causal variable to help explain the process between emotional labor and recovery. In line with resource perspectives, a high motivation to detach may signal that an employee no longer wants to engage in losing resources during work and, consequently, is unable to gain resources during work if detached. Therefore, it is logical to assume that after engaging in SA, a more costly experience, individuals may be motivated to shift their behavior and attention away from work (Inzlicht & Schmeichel, 2012; Sayre et al., 2020) and have a higher motivation to detach. The existing need for recovery research and the budding motivation to detach research both highlight the differential effects of SA and DA.

In essence, motivation to detach can be applied to understand how emotional labor at work can influence employees' after-work experiences such as psychological detachment, relaxation, mastery, and control. Since DA typically produces better experiences and social interactions at work (e.g., Zhan et al., 2016), the motivation research argues that demanding and unrewarding effortful tasks (i.e., SA) lead employees to intentionally shift their motivation and

attention. The extent that the day's work involves suppressing and faking emotions via SA (or modifying moods to appear genuinely positive via DA) should result in being more (less) motivated to detach from work.

Hypothesis 2a: Daily engagement in SA at work will be positively related to daily motivation to detach from work

Hypothesis 2b: Daily engagement in DA at work will be negatively related to daily experiences of motivation to detach from work

Recovery Experiences

After employees expend energy at work responding to job demands, they need to recover to replenish their resources, which typically takes place during non-work hours each day (Sonnentag et al., 2017). Recovery from work is the process of reducing the negative consequences of demanding work (e.g., Craig & Cooper, 1992), and it can impact the next day's experiences at work, such that recovery can increase well-being and desirable workplace behaviors (e.g., Sonnentag et al., 2017). Also, it explains how employees maintain their ability to do their jobs despite job demands (Sonnentag & Fritz, 2015). Research is clear that recovery experiences are beneficial for employees by reducing work-family conflict (e.g., Molino et al., 2015) and increasing energy at work (Kinnunen et al., 2010). Given the large proportion of the workforce that is in a high emotional-demand setting, exploring how the process of emotional labor leads to, or inhibits, recovery experiences is critical so that employees can thrive and workplaces can have a sustainable workforce (Hülsheger & Schewe, 2011; Xanthopoulou et al., 2017). The intersection of emotional labor and recovery has gone largely ignored (e.g., Xanthopoulou et al., 2017).

Recovery behaviors versus recovery experiences. Within the recovery literature, there are two primary focuses of after-work recovery: 1) recovery activities/behaviors and 2) recovery experiences. The former are the behaviors, such as riding a bike or socializing with friends. Lower-effort activities are positively related to well-being and recovery, and higher-effort activities (e.g., building your own boat after work) have a detrimental impact (e.g., Sonnentag et al., 2021). However, the psychological experiences (recovery experiences) matter here, too. Recovery experiences, are the psychological experiences or states people experience after work. Recovery experiences help employees replenish drained resources as they take a break from job demands (Hao et al., 2023). Recovery experiences could be expected to improve the relationship between job demands and the possible outcome of the stress-strain process, such as burnout and exhaustion (Sonnentag & Fritz, 2015). Therefore, recovery experiences are critical to the daily emotional labor process because they may reduce the adverse outcomes associated with emotional labor, yet they have been largely ignored (Xanthopoulou et al., 2017). This paper used recovery experiences to understand how emotional labor can impact after-work recovery.

Types of recovery experiences. Recovery experiences outside of work fall into four categories: 1) psychological detachment, 2) relaxation, 3) mastery, and 4) control (Sonnentag & Fritz, 2007). It is important to remember that recovery experiences and recovery activities or behaviors are not the same thing; recovery activity (i.e., reading) can induce an individual to have a recovery experience (i.e., relaxation). The most frequently studied experience is psychological detachment (Sonnentag et al., 2017; Wendsche & Lohmann-Haislah, 2017). Psychological detachment occurs when employees attempt to not think about work during non-work times or are cognitively disengaged with work (Sonnentag & Fritz, 2007). Psychological detachment from work is critical for many reasons; it can promote mood and engagement at

work the following day (Sonnentag et al., 2017). Relaxation recovery experiences have a low activation level, both psychologically and physically (Sonnentag & Fritz, 2007), are characterized by having a positive affect (Stone et al., 1995), and are an emotional recovery experience (Xanthopoulou et al., 2017) - the employee feels relaxed after work. An employee can experience relaxation by doing behaviors that will give one the experience of relaxation, such as reading a book, watching TV, or sitting in a hammock outside. Mastery experiences are considered a positive challenge to learn something new (Sonnentag & Fritz, 2007). Individuals can experience mastery when they feel challenged by activities such as learning a new instrument, mastering a new video game or learning a new language. Lastly, control recovery experiences occur when employees have a sense of control over their non-work time (Sonnentag & Fritz, 2007). An employee can experience control when their non-work time is not dictated by others but more in their control. Although these four types are conceptually distinct, all of these recovery experiences promote well-being and regaining resources that were lost on the job (Sonnentag & Fritz, 2007).

There is some correlation between recovery activities and experiences, but the strongest positive relationship is between low-effort recovery activities and relaxation experiences (Steed et al., 2019). Further, high-effort recovery activities are negatively related to psychological detachment, control, and relaxation but have a mixed or null effect on mastery (Steed et al., 2019). This suggests that mastery experiences may contain the more demanding recovery activity that requires more resources to be invested than the other types of experiences. It is important to consider that while recovery experiences are the focus of this study, recovery experiences are typically accompanied by some behavior/activity.

Measuring recovery experiences. Prior efforts to combine emotional labor and recovery research have primarily centered on two aspects: one, examining recovery activities occurring during work hours, such as breaks (Trougakos et al., 2008), and two, exploring particular recovery behaviors or experiences as factors influencing the connection between emotional labor and well-being (recovery as moderators; Diestel, Rivkin, & Schmidt, 2015), not necessarily the outcome of the emotional labor process. Even in the research on emotional labor and recovery, most of the research has neglected the nuances between SA and DA. However, those who have begun studying recovery experiences on a daily basis find support that they fluctuate daily (e.g., Hao et al., 2023). Even when recovery is explored on a daily basis, much of the work looks only at one type of recovery experience or uses a composite of all four kinds (e.g., van Wijhe, Peeters, Schaufeli, & Ouweneel, 2013). A recent confirmatory factor meta-analysis suggests that recovery experiences are not highly correlated, nor should they be measured as an aggregate mean score (Hao et al., 2023). Scholars argue (e.g., Chawla et al., 2020) that we still do not know enough about the theoretical understanding of what factors impact daily changes in recovery experiences. Instead, researchers should use the variable-centric approach (Wang & Hanges, 2011), where each type is isolated. Therefore, this paper measured each recovery experience as its own type and not aggregate all recovery experiences in a sum.

Recovery perspectives. Most early recovery research is based on the Effort-Recovery Model (E-RM; Meijman & Mulder, 1998). The E-RM suggests that managing work stress and fulfilling job responsibilities consumes energy, resulting in physical and psychological strain. To counter this, it is essential for employees to engage in relaxation and recuperate during their non-work hours (Sonnentag, 2001). Emotional labor could lead to a stronger need for recovery and, therefore, have a positive relationship between job demands and recovery after work

(Xanthopoulou et al., 2014). In this case, employees who engage in the costly experience of responding to job demands are more likely to engage in recovery after work to replenish lost resources because they feel like they need to recover (Sonnentag & Zijlstra, 2006). E-MR suggests that recovery is mandatory; it will naturally happen when demands are gone. However, it does not necessarily explain how specific work factors could promote or reduce unique recovery experiences. However, there is mixed or inconclusive evidence to support E-RM and the notion that demanding days at work will always promote a higher amount of recovery experiences, not just the need (e.g., Mojza et al., 2010). Further, much of the E-RM work over-emphasizes relaxation and forgoes other types of recovery experiences. It is not as simple as more demanding days lead to higher recovery from work. The evidence is uncertain, and scholars should consider another theoretical mechanism that explains the relationship between experiences at work and recovery (Chawla et al., 2020).

In light of the limitations of E-MR, many scholars use a resource perspective to study recovery behaviors (Sonnentag et al., 2021). One resource perspective, JD-R suggests that when resources are lost through experiences like emotional labor, employees "will invest additional resources (e.g., time, exposure to satisfying experiences) that help to replenish the resources" (Sonnentag et al., 2021, p. 35). According to JD-R, after SA and DA, employees may invest more resources to help replenish those lost. However, this is not always the case. Interestingly, evidence suggests in some cases, there may be a "recovery paradox" (Sonnentag et al., 2022, p. 5). Instead, recovery may be less likely to occur when well-being is lower and recovery is most needed (e.g., Schulz et al., 2021; Xanthopoulou et al., 2017). In line with this, some research on after-work and recovery suggests that there is a negative relationship between job demands (i.e., emotional display rules) and recovery behaviors (Wendsche & Lohmann-Haislah, 2017). For

example, suppose an employee spends their day effortfully managing their emotional display (demanding) to meet their display requirements (i.e., job demand). In that case, for example, employees are less likely to go home and participate in intellectual pursuits or get out their crafting supplies (e.g., mastery experience). This suggests that job demands during the day can hinder recovery from work, especially if someone remains "preoccupied with job demands" (Chawla et al., 2020, p. 22; Bennet et al., 2018).

In light of the limitations of JD-R, the W-HR perspective (ten Brummelhuis & Bakker, 2012) may be better suited to explain how the emotional labor process impacts after-work recovery experiences. W-HR suggests that those who lose resources during work will not have the resources to engage in recovery behaviors after work. This perspective helps explain the recovery paradox, how work experiences can impact experiences at home, and how resources in each domain (work and home) can impact each other, employee well-being, and job outcomes. Specifically, resources can transfer from one domain to the other to positively or negatively impact the employee. When exploring how daily emotional labor processes impact daily recovery experiences, I will draw upon the WH-R perspective and expand our understanding to more novel variables (i.e., motivation to detach) above.

Antecedents of specific types of recovery experiences. Research on antecedents of recovery experiences focuses on two key areas: 1) general affective and well-being antecedents and 2) organizational and interpersonal experience antecedents (i.e., job demands and job resources, motivation to detach). The former is studied at the within-person level at a higher frequency than the latter; "Longitudinal research on longer-term associations between job demands and job resources with recovery is still very limited" (Sonnentag et al., 2022, p. 5). Additionally, most literature on recovery experiences ignores the daily recovery experiences and

daily changes in job demands and resources (Chawla et al., 2020). To answer this call, this study focused on the organizational and interpersonal experience antecedents of recovery and measured them daily.

Nuances of types of recovery experiences. The job demands, resources, and recovery literature does not paint a simple picture that more resources will lead to more recovery (e.g., Kinnunen & Feldt, 2013) or the opposing view that lower resources will lead to more recovery. Many times, demands predict one type of recovery experience and not another. Meta-analytic evidence suggests that because recovery experiences are not highly correlated, we may expect different causal processes to explain psychological detachment, relaxation, mastery, and control (Hao et al., 2023). This nuance is evidenced by a handful of studies connecting job resources and demands to recovery experiences. For example, using WH-R lens and recovery as a mediator, Xanthopoulou et al. (2017) found that SA and DA had differential effects on one's need for recovery after work and recovery experiences, especially relaxation. SA was positively related to the need for recovery, while DA was negatively related to the need for recovery. Their research also suggests that certain types of recovery experiences are more likely to occur than others depending on how many resources were used during work and what emotional labor strategy was used. They found that SA negatively related to relaxation (i.e., recovery experience), perhaps due to the possibility that relaxation experiences can bring negative rumination about work (e.g., Cropley & Zijstra, 2011), and DA did not have an effect on relaxation.

Similarly, Grandey et al. (2019) suggest that DA may be negatively related to the need for recovery. However, Xanthopoulou et al. (2017) only looked at relaxation and no other types of recovery experiences, and Grandey et al. (2019) did not directly measure the need for recovery but used need as an explanation for their results between DA and drinking after work,

which was conceptualized as an after work detachment experience. If one were to take these findings and integrate them, you would expect that demands that are less (i.e., DA) do not relate to recovery, and more demands (i.e., SA) decrease recovery. However, this is not found in all studies. This research demonstrates why it is problematic to measure only one type of recovery experience because it hinders our understanding of what factors drive each type of recovery experience.

The research on the recovery experience provides a robust body of research and demonstrates the complex nature of predicting recovery experience. A few studies suggest that high demands predict a decrease in psychological detachment and relaxation but no change in mastery or control (e.g., Kinnunen & Feldt, 2013; Meier & Cho, 2019). Some suggest that increased interpersonal stressors predict a lack of psychological detachment (e.g., Schulz et al., 2021), while others did not find this (e.g., Meier & Cho, 2019). Others found a negative relationship between strain indicators (e.g., need for recovery) and psychological detachment (e.g., Donahue et al., 2012; Sanz-Vergel et al., 2010). Many say when work is worse (more demanding, higher stress), there will be less psychological detachment (Sonnentag, 2012) because of rumination (van Wijhe et al., 2013). In line with this, when work is perceived as successful, recovery experiences of relaxation and detachment are more likely; however, they are less likely to happen on unsuccessful days (Sonnentag et al., 2022). Negative events and social interactions predicted less psychological detachment (Bono et al., 2013; Volmer et al., 2012). Further, an increase in job resources could increase mastery experiences but may not have a relationship with other recovery experiences (i.e., relaxation, psychological detachment, and control; Kinnunen & Feldt, 2013). Others found that job resources may have a positive relationship with control and mastery but a smaller relationship with relaxation and

psychological detachment (Steed et al., 2019). Specific types of recovery experiences may also depend on the types of job demands or job resources. For example, emotional job demands and cognitive job demands may have a negative relationship with psychological detachment, relaxation, and control but no relationship with mastery recovery experiences (Steed et al., 2019). As evidenced by these nuanced findings, it is not enough to say resources or demands always impact recovery; one must specify which type of recovery.

Perceived customer gratitude as a mediator between emotional labor and recovery experiences. Notably, past research has underrepresented how external resources, particularly support from others, contribute to recovery despite empirical evidence supporting the positive impact of social support on recovery experiences (e.g., Chawla et al., 2020). While emotional labor is costly due to the effort needed to enact SA and DA, the gain of positive social feedback can buffer the relationship between emotional labor and negative outcomes (e.g., Grandey & Gabriel, 2015; Maneotis, 2014). For example, perceived customer gratitude is linked to other positive outcomes, such as job satisfaction, and may buffer against work-related exhaustion (Kim, Lee & Lee, 2019). Further, research suggests that if employees perceive they did their job well, they are more likely to have higher psychological detachment and relaxation (e.g., Lanaj et al., 2021). Conversely, social conflicts with customers have been related to employees' inability to recover and negative work reflection during leisure (Volmer et al., 2012). Therefore, perhaps the inverse is true; positive interactions may predict recovery experiences. Additionally, research connecting job resources to recovery experiences suggests there is a stronger tie between resources and mastery experiences and control experiences and a null or smaller relationship with psychological detachment and relaxation (e.g., Steed et al., 2019). Taken together, one

could expect that perceived customer gratitude would be positively related to all four types of recovery experiences as it is a job resource and an indicator of doing one's job well.

DA appears to elicit better customer reactions and is thought to be less costly to the employee compared to SA (Grandey & Sayre, 2019). DA is more likely to promote customer conflict resolution than SA (Huang et al., 2015). Therefore, when DA promotes positive interactions with customers, employees' likelihood of having recovery experiences is stronger. Further, DA is associated with less need for recovery, whereas SA is positively associated with the need for recovery (Xanthopuolou et al., 2017). DA, acting as a resource-generating experience, may promote distinct recovery experiences compared to SA through customer gratitude. For example, SA is expected to have a negative effect on customer gratitude. Therefore, an employee will have fewer resources and a less positive experience that day at work. When daily experiences of SA are higher, and therefore customer gratitude is lower, employees may not be able to have relaxation recovery experiences since rumination on the day may occur (Xanthopoulou et al., 2017). Further, they may not have the resources to participate in psychological detachment, control, or mastery. On the other hand, on days when DA is higher and customer gratitude is high, employees may have the resources needed to participate in recovery experiences like mastery and control and be able to participate in retaliation and psychological detachment without the threat of ruminating on a negative day at work. Following this line of thinking, it is important to explore how the social reward of customer gratitude could play a role in the emotional labor process (Inzlicht & Schmeichel, 2012) and the recovery process.

Hypothesis 3a: Daily engagement in SA will be indirectly and negatively related to all recovery experiences through the daily experience of perceived customer gratitude.

Hypothesis 3b: Daily engagement in DA will be indirectly and positively related to all recovery experiences through the daily experience of perceived customer gratitude.

Motivation to detach as a mediator between emotional labor and recovery experiences. I proposed an indirect effect of emotional labor on recovery experiences via the motive to detach from work (Sonnentag & Bayer, 2005; Sayre et al., 2020). After engaging in emotional labor, employees may be more motivated to detach from their work. There is building evidence that there may be a negative relationship between strain indicators (i.e., need for recovery) and psychological detachment (e.g., Donahue et al., 2012; Sanz-Vergel et al., 2010). Further, there is evidence to suggest that when emotional demands are high and employees have draining days, they are less likely to experience psychological detachment, relaxation, and control (Haun et al., 2018; Ilies et al., 2007; Sonnentag et al., 2022). Motivation to detach can be conceptualized as an indirect measure of having a high-demand, high-stress day. SA is expected to be more demanding than DA. Therefore, when employees participate in SA at a high rate, they will have fewer resources and a less positive experience that day at work, and therefore more motivation to detach. In other words, as individuals engage more in SA, they may feel a stronger motivation to detach from work-related thoughts or activities, leading to lower levels of after-work psychological detachment and relaxation recovery experiences.

Hypothesis 4a: Daily engagement in SA will be indirectly and negatively related to after-work psychological detachment and relaxation recovery experiences through the daily motivation to detach.

Hypothesis 4b: Daily engagement in DA will be indirectly and positively related to after-work psychological detachment and relaxation recovery experiences through reduced daily motivation to detach.

It is critical to understand which work demands and resources impact after-work recovery experience on a daily basis. As noted above, most previous work looked at recovery as moderators or mediators in the relationship between emotional labor and well-being, not as an outcome. Demonstrating the connection between emotional labor and the recovery process is crucial, as it helps us understand how a substantial portion of the workforce can be shielded from a need for post-workday recovery. This protection enables them to unwind and, in turn, replenish their energy as the day concludes. Therefore, this paper heeds the call to better understand daily SA and DA's relationships with variables outside of work (e.g., Grandey & Gabriel, 2015) and to explore the differential effects of emotional labor types on distinct recovery experiences (e.g., Xanthopoulou et al., 2017) through more novel variables.

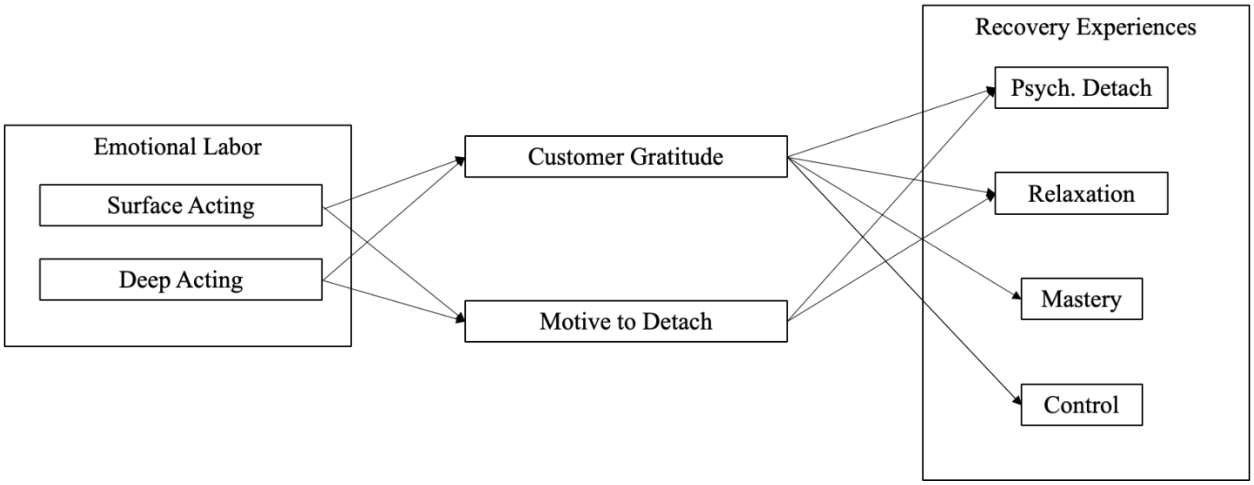
Present Study

In this study, archival data sampled only those in a service industry, a sector of the workforce that is characterized by having higher emotional display requirements (a job demand), to understand how this job demand may impact emotional labor behaviors and ultimately, after-work recovery experiences. By sampling customer service workers, I intended to find those exposed to high levels of emotional display requirements and explore the consequences of these emotional labor in this population. It is assumed that emotional display rules are a prominent aspect of this sample's work experience, but it is not known how much emotional display rules vary between participants. The sampling approach in this study assumes reasonable homogeneity across emotional display requirements because all participants are in the service industry.

This study utilized an experience sampling method (ESM; Gabriel et al., 2018) to understand the process of emotional labor better, specifically, it examined how SA and DA predicts recovery experiences through novel mediators: 1) perceived customer gratitude, and 2)

motivation to detach (see Figure 1). Analyzing these relationships is important as the scientific study has only begun to understand the differential impact of SA and DA and their impact on after-work experiences, especially at the within-person level of analysis.

Figure 1.



Conceptual Model Proposed in this Manuscript.

METHOD

Participants

Participants were recruited from Amazon's Mechanical Turk (Mturk). In this project, I used archival data in which I aimed to have at least 120 participants fully qualified for the study design. This sample source and size were based on the sample sizes typically used in emotional labor work (e.g., Sayre et al., 2020) and assumed 20% participant attrition rather than an a priori power analysis. Further, no published studies could be used to estimate the covariance structure among the constructs studied here. Without such information, sample size suggestions vary widely based on assumed values input into power analyses (e.g., Clarke, 2008; Fang, 2006; Scherbaum & Ferreter, 2009). The screener survey resulted in 1088 participants who were screened for qualification for the daily data analysis.

To participate in this data collection, participants must have been 18 years old, employed at least 35 hours a week on average, have daily contact with people besides their coworkers (to fulfill the definition of emotional labor; Hochschild, 1983), and work in a customer service occupation. Participants were compensated for their time with incentives for each survey and bonuses for higher participation rates. The total possible compensation was $27.50 (See Appendix A for more details on the compensation schedule).

Participants were screened out if they 1) were a duplicated response (i.e., ballot stuffing), 2) did not pass attention check items, and 3) only completed 1 of the daily measurements. After filtering for a duplicated responses, my sample size dropped to 999. After screening out for attention checks, my sample size was 264. After screening out participants for having only 1 measurement day, my final sample size was 116, which totaled 1025 total observations. Thus,

116 participants were retained for further analysis (M_{age} = 37.40, SD_{age} = 10.70, 55% male, 84% cisgender, 82% white, 78% regular 9-5 work schedule, M_{hours} per week = 40.18). The most frequently mentioned job titles included Manager (n = 24), Supervisor (n = 6), Engineer (n = 6), and Accountant (n = 5), and the top three highest reported industries were Finance and Insurance (16%), Education and Health Services (15%), and Professional and Business Services (15%).

Procedure

An initial survey was hosted on Qualtrics via Mturk's platform. This survey asked for demographic information and chronic emotional job demands, and other screener information to make sure participants were eligible. One week later, ESM data collection began. Participants were emailed a link to a Qualtrics survey twice daily for 14 days. Although participants received the questionnaire each day, I asked if they had worked that day. If not, the survey only presented items that could occur on non-work days (e.g., recovery experiences from the night before). Emotional labor, customer gratitude, motive to detach, and negative affect were measured shortly after their shifts. Recovery experiences, which would occur after work in the evening, were measured the next day in a survey before their shift. Methodologically, recovery experiences were measured the next day, but conceptually, they occur on the same day as the predictor (i.e., emotional labor). Morning surveys were sent out at 7:00 am ET and afterwork surveys were sent out around 8:00 pm ET. It should also be noted that this design follows Sayre et al.'s (2020) second study, whereby outcomes are temporally separated from predictors and mediators. Still, predictors and mediators are assessed at the same time. The limitations of simultaneous measurement of predictors and mediators were offset by allowing participants to respond based on the entirety of their work day. Given the variability in working schedules,

participants were asked to complete the surveys as soon as it was convenient for them (for measurement timing of each primary construct, see Table 1).

Table 1.

Measurement Timing of Primary Constructs.

Baseline (pre-ESM)	Daily (Pre-Shift)	Daily (Post-Shift)
Customer Interaction	Relaxation	Surface Acting
Demographics	Psychological Detachment	Deep Acting
	Control	Motivation to Detach
	Mastery	Perceived Customer Gratitude

Measures

The following section outlines the measures collected for this study. Screener items used in the initial, non-daily survey are reported in Appendix B in the order they were presented to the participants. Full information for each measure can be found in Appendices C-F.

Emotional Labor

The daily post-shift surveys measured emotional labor using the 6-item scale developed by Brotheridge and Lee (2003). Participants were prompted to think about how much they engaged in such behavior at work that day. Three items assessed DA (Mα = .92, averaged across 14 days; Sayre et al., 2020), and three items assessed SA (Mα = .93, averaged across 14 days, Sayre et al., 2020) on a 5-point Likert scale from 1 = never to 5 = always. An example item is "I just pretended to have the emotions I had to show" (see Appendix C). In the present study, DA scale was highly reliable across days (Mα= .94, *SD*α= .04). This SA scale was also highly reliable across days (Mα= .91, SDα= .04).

Motivation to Detach from Work

Motivation to detach from work was measured using a 2-item scale adapted from Sonnentag and Fritz (2007) (Mα = .80, averaged across 14 days; Sayre et al., 2020). Participants responded on a 5-point Likert scale where 1 = strongly disagree to 5 = strongly agree. An example item is "I want to forget about work." In the present study, this scale was highly reliable across days (Mα= .91, SDα= .03).

Perceived Customer Gratitude

Perceived customer gratitude was measured using a 2-item scale adapted from Kindt et al. (2017, α = .92). Participants were prompted to think about their customers that day on a 7-point Likert scale from 0 = totally disagree to 6 = totally agree. An example item is "My customers showed appreciation." This scale was highly reliable across days (Mα= .93, SDα= .02).

Recovery Experiences

The 16 recovery experience items used in this study come from a 32-item scale called the Recovery Experiences Questionnaire developed by Sonnentag and Fritz (2007, α = .87), a scale that has supple validation support (Hao et al., 2023). Four items were used to measure psychological detachment (α = .94, Hao et al., 2023). An example item is "I get a break from the demands of work." Four items were used to measure relaxation (α = .93, Hao et al., 2023). An example item is "I use time to relax." Four items were used to measure mastery (α = .91, Hao et al., 2023). An example item is "I do things that challenge me." Four items were used to measure control (α = .93, Hao et al., 2023). An example item is "I determine for myself how I will spend my time." Though Sonnentag and Fritz's (2007) scale contains eight items per dimension, the present study will follow Chawla et al.'s (2020) approach of using four items per dimension,

given they are administered on a daily basis. Participants were prompted to think about their time after work and respond on a 5-point Likert scale from 1 = I do not agree at all to 5 = I fully agree. Psychological detachment (Mα= .76, SDα= .02), relaxation (Mα= .78, SDα= .01), mastery (Mα= .78, SDα= .01), and control (Mα= .74, SDα= .04), were all acceptably reliable across days.

Analytic Strategy

Data Cleaning and Preliminary Analyses

Participants who did not pass 50% of attention check items were eliminated. Items were reverse-coded before scale scores were constructed. To determine if missing data occurs at random, missing at random, or not at random, data were examined at multiple levels and addressed appropriately, namely using Full Information Maximum Likelihood estimation where appropriate (Newman, 2014). Preliminary analysis included descriptive statistics, correlations, and psychometric tests to compute reliability and confirm the internal structure of all measures used.

A multilevel confirmatory factor analysis (mCFA) was conducted to evaluate the factor structure of each latent variable, ensuring that items served as valid indicators of the intended constructs (e.g., Rosen et al., 2016). A mCFA is essential for defining variables at both the within- and between-person or group levels (Gabriel et al., 2019). Model fit was evaluated using standard criteria: SRMR < .05, TLI > .90, CFI > .90, and RMSEA < .08. These thresholds were considered as guidelines rather than strict cutoffs, as certain conditions might cause an individual fit index to suggest misfit without justification (Nye & Drasgow, 2011; Schermelleh-Engel, Moosbrugger, & Müller, 2003). To aid interpretation, chi-square (χ^2) values were used as a goodness-of-fit statistic to assess the degree of discrepancy between the sample and overall covariance matrices (Hu & Bentler, 1999). While the statistical significance of χ^2 is typically

used to determine model fit (with $p < .05$ indicating poor fit), it can be influenced by sample size. For example, McDonald & Ho (2002) found that only 12% of studies using structural equation modeling over a three-year period reported a non-significant χ^2. Therefore, model fit was evaluated comprehensively.

Emotional labor and recovery measures terminated normally (fit estimates are presented in Table 2)—however, my two two-item scales, motivation to detach and perceived customer gratitude did not, likely due to having too few indicators to estimate latent constructs.
Since I was unable to achieve model convergence and obtain fit statistics, I correlated the two items from each scale at the within and between levels. Within individuals across the 14-day period, the two motivation items correlated at the within-level ($r = 0.73$). Additionally, the two items are both highly correlated at the between-level ($r = .93$). It suggests that people who are high on *Motiv1* are also high on *Motiv2* in nearly the same way. These correlations confirmed I could create a scale score between my two motive items to detach the items. Perceived customer gratitude was highly correlated at the within-level ($r = 0.89$) and between ($r = 0.89$), confirming I could create a scale score between my two perceived customer gratitude items.

Table 2.

Model Fit.

	χ^2	CFI	TLI	RMSEA	SRMRw	SRMRb
Emotional Labor	2003.76*	.98	.97	.04	.02	.01
Recovery	408.34*	1.00	.96	.03	.04	.05

*$p < .05$

Within-person variables were evaluated using a null model to examine the amount of within-person variability to ensure that multilevel analyses are appropriate; I calculated intraclass

correlation coefficients (ICC) for each within-person variable (Heck & Thomas, 2015). Interpretation of ICC values indicates that the variance is explained by fluctuations at the within-individual level (i.e., measurement times nested in individual) and the variance is not attributed to between-person differences. Said another way, ICC indicates if multi-level analyses are appropriate. All within-person variables had sufficient variance accounted for within individuals (see Table 3) but do suggest that there is a substantial amount of variability between individuals, too. This means that, even though people may differ on average in terms of their SA, the participants show meaningful fluctuations in SA over time (e.g., daily changes).

Table 3.

Means, standard deviations, and ICC(1) values for all scales.

	M	*SD*	ICC(1*)*
Surface Acting	2.53	1.09	.48
Deep Acting	2.60	1.16	.48
Motivation to Detach	3.50	1.10	.47
Perceived Gratitude	3.13	1.17	.45
Psych. Detachment	3.69	1.39	.47
Relaxation	3.03	1.65	.47
Mastery	2.31	1.14	.45
Control	3.33	1.17	.44

Time effects (e.g., day of the week) were also estimated, following the suggestions of Gabriel et al. (2018) to include a linear term that follows the days of the week to see if there is a

pattern in the amount of recovery experiences related to the day of the week. It could be true that participants participated in recovery experiences more during the weekend.

Model Specification and Hypothesis Testing: Multilevel Structural Equations Modelling

To test my hypotheses, I used Mplus 8.11 (Muthén & Muthén, 2015). As outlined in my proposal, I planned to conduct a dynamic multilevel structural equation model (DSEM). Multilevel DSEM was tried since there is nesting in my data. Nesting is a violation of the assumption of independence (i.e., independent observations, independent error terms, and equal variances of errors for all observations). Additionally, as proposed, I planned to have my within-person effects be specified to have random slopes, so that random slopes were used to predict the relationship between emotional labor and motivation to detach and perceived customer gratitude. However, this planned model specification did not pan out as expected. I first tried to maintain DSEM with random slopes and Bayesian estimation, and eventually ended up with multilevel path analysis using Bayesian estimation and fixed effects on person-mean centered data.

For DSEM, I initially opted for Bayesian estimation in Mplus 8.11 (Muthén & Muthén, 2015) to capitalize on its advantages in handling complex models without strict distributional assumptions, particularly given my two-level longitudinal design, where individuals were measured twice daily over 14 days. Additionally, Bayesian estimation avoids the need to conduct bootstrapping for indirect effects as were included in my analyses (Muthén & Asparouhov, 2012; Zyphur & Oswald, 2013). However, despite several syntax adjustments (e.g., changing convergence criteria, increased iterations), I encountered persistent convergence issues where the model would not run and no output statistics would be produced.

I moved on from Bayesian to using maximum likelihood estimation (MLE). Switching to MLE was the next best choice since I was consistently encountering issues with convergence or

complexity under Bayesian estimation. MLE is a widely used method known for its efficiency and robustness in handling missing data and complex models (e.g., Marsh et al., 2004; Klein & Muthén, 2007). MLE tends to converge more quickly and is less computationally intensive than Bayesian methods, particularly with complex datasets. My handful of attempts using MLE resulted in Fatal Errors suggesting I increase iterations, which I tried.

Additionally, I attempted to use Monte Carlo integration. This method approximates the integration, which is less computationally expensive than the MLE options noted above (Muthén & Muthén, 2011). Unfortunately, I could not obtain model convergence. Then, I pivoted to increasing iterations. Once again, after many attempts, I was not able to reach model convergence.

Ultimately, these convergence difficulties with estimation led me to reconsider my approach, emphasizing the need for a methodological strategy that balances model complexity with computational feasibility and theoretical relevance. At this point I changed from previous approaches where constructs were latent mean-centered to employing observed mean-centered data, which is also referred to as person-mean centered. My variables were person-mean centered so that effects observed at Level 1 would represent within-person effects (Algina & Swaminathan, 2011). For multilevel models, especially with DSEM (random slopes), centering helps in making the model more identifiable and stable (e.g., Hamaker & Muthén, 2009). Once my data was centered, I started back at step one and attempted DSEM and all appropriate syntax modifications to try and get model convergence. Unfortunately, I could not get model convergence with random effects across a variety of strategies (e.g., Bayesian estimation, MLE, Monte Carlo integration). However, I was able to achieve model convergence utilizing multilevel path analysis and fixed effects with person-mean centered data and Bayesian estimation.

Person-mean centering (sometimes referred to as cluster mean centering; González-Romá & Hernández, 2023) does not come without its limitations. While this approach helps to disentangle effects at the within-persons and between-persons level, a primary concern is that using observed cluster means as proxies for true cluster means can introduce bias into estimates, especially in models with complex structures or small sample sizes (González-Romá & Hernández, 2023), like the one in the present study. It should be considered that other methods (i.e., latent mean centering) would have been ideal for the present study's sample size and model complexity.

In summary, my model is based on established theory in emotional labor and recovery and previous work using similar methods (e.g., Sayre et al., 2020). In the end, I was unable to use DSEM and instead used multilevel path analysis, which also takes into account the nested structure of my data (i.e., 2 daily reports within each participant). By modeling within-person variation (i.e., how emotional labor and recovery experiences fluctuate daily) and between-person variation (i.e., differences across participants in general patterns), I can capture both the daily dynamics of emotional labor and recovery and the individual differences in these patterns. More specifically, I used Bayesian estimation with fixed effects on person-centered data to test my two-level model path analysis. I used fixed effects rather than random effects in my model to ensure model convergence. Given the complexity of the model relative to my sample size and the structure of the data, attempts to specify random effects resulted in non-convergence. As discussed above, nesting is a violation of independence and must be addressed to appropriately test my hypotheses. I addressed the violation of independence via person-mean centering and estimating a two-level model (Gonzalez-Roma & Hernandez, 2023). Person-mean centering is a statistical technique used in research to adjust variables by subtracting the mean of a particular

person's scores across all measured variables. Said another way, I used this centering approach to disaggregate within-level and between-level effects.

RESULTS

Intercorrelations are presented in Table 4 for the within-persons level and Table 5 for the between-persons level. As expected, several variables show statistically significant associations at the within level. For instance, SA was positively correlated with motivation to detach from work ($r = .33$, $p < .01$), and so was DA ($r = .22$, $p < .01$), though the magnitude of these associations were moderate. Gratitude showed small-to-moderate positive correlations with DA ($r = .31$, $p < .01$) and SA ($r = .22$, $p < .01$). Alternatively, several correlations were non-significant or close to zero. For example, perceived customer gratitude was not correlated significantly correlated with control ($r = .07$, $p = .05$), and neither was motivation to detach from work ($r = -.01$, $p = .78$). Although some expected correlations emerged, many hypothesized associations were not statistically significant at the within level, which can be used to interpret subsequent results from my path analysis to examine potential mediated effects.

Table 4.

Intercorrelations Within-Person Level

Variable	1	2	3	4	5	6	7
1. SA							
2. DA	.45**						
3. Motiv	.33**	.22**					
4. Grat	.22**	.31**	.24**				
5. Control	-.11**	.00	-.01	.07			
6. Relax	-.04	-.02	-.01	.05	.54**		
7. Mastery	-.11**	-.03	-.07	-.03	.26**	.15**	

8. Psych D	-.12**	-.02	-.07	-.03	.49**	.57**	.19**

Note. SA = surface acting, DA = deep acting, Motiv = motivation to detach, Grat = perceived customer gratitude, Relax = relaxation recovery, Control = control recovery, Mastery = mastery recovery, Psych D = psychological detachment recovery. * indicates $p < .05$. ** indicates $p < .01$.

Table 5.

Intercorrelations Between-Person Level

Variable	1	2	3	4	5	6	7
1. SA							
2. DA	.65**						
3. Motiv	.17**	-.04					
4. Grat	.11**	.46**	-.26**				
5. Control	-.15**	-.08**	.25**	.14**			
6. Relax	-.18**	-.02	.26**	.14**	.74**		
7. Mastery	.38**	.58**	-.19**	.56**	-.11**	-.14**	
8. Psych D	-.14**	-.12**	.45**	-.00	.60**	.78**	-.17**

Note. SA = surface acting, DA = deep acting, Motiv = motivation to detach, Grat = perceived customer gratitude, Relax = relaxation recovery, Control = control recovery, Mastery = mastery recovery, Psych D = psychological detachment recovery. * indicates $p < .05$. ** indicates $p < .01$.

Test of Hypotheses

The current study explored the nuanced pathways through which emotional labor (i.e., SA and DA) impacted service workers' after-work recovery experiences. To examine the proposed hypotheses, a Bayesian multilevel path analysis was conducted using Mplus 8.11 (Muthén & Muthén, 2015). Posterior estimates, standard deviations, and 95% credibility intervals (CIs) are reported for direct and indirect effects (see Table 6).

Hypothesis 1a suggested that daily SA would negatively predict daily experiences of perceived customer gratitude. This was evaluated using the regression estimate where SA predicted perceived customer gratitude at level 1 of my model. For hypothesis 1a, results did not support this hypothesis, as the estimate was positive and statistically significant (b = 0.10, SD = 0.03, 95% CI [0.04, 0.17]). Hypothesis 1b posited that daily engagement in DA at work would be positively related to daily experiences of perceived customer gratitude. This hypothesis was tested by assessing the regression estimate, reflecting how DA was a predictor for perceived customer gratitude, at level 1 of my model. For hypothesis 1b, results supported this hypothesis (b = 0.27, SD = 0.04, 95% CI [0.21, 0.34]).

Hypothesis 2a and 2b examined how SA and DA, respectively, predicted daily motivation to detach from work. I analyzed the regression estimates at level 1 to understand the differential effects of SA and DA on employees' motivation to detach from work. For hypothesis 2a, which suggested that SA would be positively related to motivation to detach from work, the estimate was positive and significant (b = 0.39, SD = 0.03, 95% CI [0.23, 0.36]), supporting my hypothesis. For hypothesis 2b, which proposed that DA would be negatively related to motivation to detach, results were not consistent with expectations, showing a small positive significant effect (b = 0.09, SD = 0.03, 95% CI [0.02, 0.15]).

Moving to indirect effects, I employed mediation analysis for hypotheses 3a and 3b, which involved the mediating role of perceived customer gratitude between emotional labor and recovery experiences. These hypotheses involved assessing the indirect effects of SA and DA on recovery experiences through perceived customer gratitude, offering insights into how emotional labor strategies facilitated or hindered recovery via the mediating influence of perceived customer gratitude. For hypothesis 3a, which suggested an indirect negative relationship between

SA and all recovery experiences via perceived customer gratitude. The indirect effect of SA on psychological detachment via gratitude was non-significant (b = 0.00, SD = 0.00, 95% CI [-0.01, 0.02]). Similarly, the indirect effect of SA on mastery via gratitude was non-significant (b = 0.00, SD = 0.00, 95% CI [-0.01, 0.01]). The indirect effect of SA on relaxation via gratitude was non-significant (b = 0.01, SD = 0.00, 95% CI [0.00, 0.01]). However, the indirect effect of SA on control via gratitude was small and significant but in the opposite direction than was hypothesized (b = 0.01, SD = 0.00, 95% CI [0.01, 0.01]).

Table 6.

All Hypothesized Results.

	Motive			Gratitude			Control			Relaxation			Mastery			Psych detach		
Dependent variable	Estimates	SD	95% CI	Estimates	SD	95% CI	Estimates	SD	95% CI	Estimates	SD	95% CI	Estimates	SD	95% CI	Estimates	SD	95% CI
SA	0.39*	0.03	[0.23, 0.36]	0.10*	0.03	[0.04, 0.17]	-0.09	0.03	[-0.14, -0.03]	-0.04	0.03	[-0.10, 0.03]	-0.10	0.04	[-0.18, -0.02]	-0.09	0.04	[-0.16, -0.03]
DA	0.09*	0.03	[0.02, 0.15]	0.27*	0.04	[0.21, 0.34]	0.05	0.05	[-0.05, 0.16]	0.06	0.05	[-0.04, 0.16]	0.02	0.04	[-0.05, 0.10]	0.02	0.03	[-0.04, 0.09]
Motive	-	-	-	-	-	-	0.01	0.03	[-0.05, 0.06]	0.00	0.03	[-0.06, 0.06]	-0.03	0.04	[-0.10, 0.04]	-0.03	0.03	[-0.09, 0.03]
Gratitude	-	-	-	-	-	-	0.06*	0.03	[0.01, 0.11]	0.05	0.03	[-0.01, 0.11]	-0.01	0.04	[-0.08, 0.06]	-0.01	0.03	[-0.07, 0.05]

Indirect effects	Estimates	SD	95% CI
SA -> Motive -> Relaxation	0.00	0.01	[-0.02, 0.02]
SA -> Motive -> Psych detach	-0.01	0.01	[-0.03, 0.01]
DA -> Motive -> Relaxation	0.00	0.00	[-0.01, 0.01]
DA -> Motive -> Psych detach	0.00	0.00	[-0.01, 0.00]
SA -> Gratitude -> Control	0.01*	0.00	[0.01, 0.01]
SA -> Gratitude -> Relaxation	0.01	0.00	[0.00, 0.01]
SA -> Gratitude -> Mastery	0.00	0.00	[-0.01, 0.01]
SA -> Gratitude -> Psych detach	0.00	0.00	[-0.01, 0.02]
DA -> Gratitude -> Control	0.02	0.01	[0.01, 0.03]
DA -> Gratitude -> Relaxation	0.01	0.01	[0.00, 0.03]
DA -> Gratitude -> Mastery	0.00	0.01	[-0.02, 0.02]
DA -> Gratitude -> Psych detach	0.00	0.01	[-0.01, 0.01]

For hypothesis 3b, which proposed that daily DA would be indirectly and positively related to all recovery experiences via perceived customer gratitude, results only partially supported this hypothesis. The indirect effects were non-significant across three out of four recovery outcomes: relaxation via gratitude (b = 0.01, SD = 0.01, 95% CI [-0.00, 0.03]), mastery via gratitude: (b = 0.00, SD = 0.01, 95% CI [-0.02, 0.02]), psychological detachment via gratitude (b = 0.00, SD = 0.01, 95% CI [-0.02, 0.01]). However, daily DA on control via gratitude was significant (b = 0.02, SD = 0.01, 95% CI [0.01, 0.03]).

Lastly, hypotheses 4a and 4b focused on the mediation effect of motivation to detach on the relationship between SA and DA and two recovery experiences (i.e., relaxation and psychological detachment). These hypotheses were explored through analyzing the indirect paths from SA and DA to psychological detachment and relaxation, mediated by the employee's motivation to detach from work. For hypothesis 4a, which suggested that SA would be indirectly and negatively related to psychological detachment and relaxation through motivation to detach, the results were not significant. The indirect effect of SA on psychological detachment via motivation to detach was non-significant (b = -0.01, SD = 0.01, 95% CI [-0.03, 0.01]). Similarly, the indirect effect of SA on relaxation via motivation to detach was also non-significant (b = 0.00, SD = 0.01, 95% CI [-0.02, 0.02]). For hypothesis 4b, which proposed that DA would be indirectly and positively related to psychological detachment and relaxation through reduced motivation to detach, results did not support this hypothesis. The indirect effect of DA on psychological detachment via motivation to detach was insignificant (b = 0.00, SD = 0.00, 95% CI [-0.01, 0.00]). Similarly, the indirect effect of DA on relaxation via motivation to detach was also non-significant (b = 0.00, SD = 0.00, 95% CI [-0.01, 0.01]).

Beyond these hypothesized relationships, additional direct effects were examined. Daily engagement in SA was significantly and negatively related to control (b = -0.09, SD = 0.03, 95% CI [-0.14, -0.03]), mastery (b = -0.10, SD = 0.04, 95% CI [-0.18, -0.02]), and psychological detachment (b = -0.09, SD = 0.04, 95% CI [-0.16, -0.03]), suggesting that greater daily engagement in SA is associated with lower experiences of control, mastery, and psychological detachment at the end of the workday. The relationship between SA and relaxation was non-significant (b = -0.04, SD = 0.03, 95% CI [-0.10, 0.03]). For DA, the direct effects on control (b = 0.05, SD = 0.05, 95% CI [-0.05, 0.16]), relaxation (b = 0.06, SD = 0.05, 95% CI [-0.04, 0.16]), mastery (b = 0.02, SD = 0.04, 95% CI [-0.05, 0.10]), or psychological detachment (b = 0.02, SD = 0.03, 95% CI [-0.04, 0.09]) were all not statistically significant. The direct effect of motivation to detach on recovery was not significant for all recovery experiences, including control (b = 0.01, SD = 0.03, 95% CI [-0.05, 0.06]), relaxation (b = 0.00, SD = 0.03, 95% CI [-0.06, 0.06]), mastery (b = -0.03, SD = 0.04, 95% CI [-0.10, 0.04]), psychological detachment (b = -0.03, SD = 0.03, 95% CI [-0.09, 0.03]). The direct effect of perceived customer gratitude on recovery was not significant for relaxation (b = 0.05, SD = 0.03, 95% CI [-0.01, 0.11]), mastery (b = -0.01, SD = 0.04, 95% CI [-0.08, 0.06]), psychological detachment (b = -0.01, SD = 0.03, 95% CI [-0.07, 0.05]). The direct effect of perceived customer gratitude on recovery was significant for control (b = 0.06, SD = 0.03, 95% CI [0.01, 0.11]).

Post-Hoc Between-Person Regression Estimates

Additional effects were examined post hoc at the between level. Based on the initial findings, I evaluated if the relationships could be explained better as individual differences, rather than within-level, dynamic relationships like I had expected. Interestingly, expected relationships were found between levels, too. For hypothesis 1a, which proposed that

engagement in SA would be negatively related to experiences of perceived customer gratitude, results did significantly support this relationship at the between-level (*b* = -0.33, *SD* = 0.11, 95% CI [-0.54, -0.12]) but at the within level SA was positively and significantly associated with perceived customer gratitude. For hypothesis 1b, which proposed that daily engagement in DA would be positively related to daily experiences of perceived customer gratitude, results significantly supported this notion at the between level (*b* = 0.64, *SD* = 0.10, 95% CI [0.44, 0.84]) and at the within level.

For hypothesis 2a, which suggested that SA would be positively related to motivation to detach from work, results supported this hypothesis (*b* = 0.33, *SD* = 0.12, 95% CI [0.10, 0.56]) at the between-level and within-level. Hypothesis 2b, which proposed that DA would be negatively related to motivation to detach, was significantly supported at the between level (*b* = -0.24, *SD* = 0.11, 95% CI [-0.45, -0.02]).

The direct effects between SA and recovery experiences at the between level did not mirror the within-level. At the between level, SA was not significantly related to control (*b* = -0.14, *SD* = 0.10, 95% CI [-0.32, 0.05]), relaxation (*b* = -0.26, *SD* = 0.10, 95% CI [-0.45, -0.06]), mastery (*b* = 0.18, *SD* = 0.11, 95% CI [-0.03, 0.40]), and psychological detachment (*b* = 0.18, *SD* = 0.11, 95% CI [-0.03, 0.40]). For DA on the between-level, DA did not have a significant relationship with control (*b* = - 0.06, *SD* = 0.09, 95% CI [-0.26, 0.13]), relaxation (*b* = 0.07, *SD* = 0.10, 95% CI [-0.13, -0.02), and psychological detachment (*b* = -0.02, *SD* = 0.11, 95% CI [-0.25, 0.20]). It was significantly related to mastery (*b* = 0.27, *SD* = 0.11, 95% CI [0.05, 0.50]). At the between level one mediator, motivation to detach from work,was significantly related to three out of four recovery experiences: relaxation (*b* = 0.26, *SD* = 0.08, 95% CI [0.10, 0.41]), psychological detachment (*b* = 0.46, *SD* = 0.09, 95% CI [0.29, 0.63]), and control (*b* = 0.23, *SD*

= 0.06, 95% CI [0.09, 0.38]). However, motivation to detach was not related to mastery at the between level (*b* = -0.06, *SD* = 0.09, 95% CI [-0.24, 0.12]). Perceived customer gratitude was significantly related to three out of the four recovery experiences: relaxation (*b* = 0.17, *SD* = 0.08, 95% CI [0.02, 0.32]), mastery (*b* = 0.58, *SD* = .09, 95% CI [0.40, 0.75]), and control (*b* = 0.16, *SD* = 0.07, 95% CI [0.02, 0.30]). However, perceived customer gratitude was not significantly related to psychological detachment (*b* = 0.11, *SD* = 0.08, 95% CI [-0.06, 0.27]).

DISCUSSION

Understanding recovery experiences is critical because they play a "crucial intervening role in the relationship between stressful work characteristics on the one hand, and health, well-being, and performance capability on the other" (Sonnentag & Geurts, 2009, p. 2). The predominant research views recovery and its various predictors as a between-persons phenomenon. Most research on organizational factors that predict after-work recovery experiences has an overreliance on cross-sectional designs; a recent review of the literature suggests that within-person and longitudinal designs are rarely used to study organizational antecedents of recovery (Sonnentag et al., 2022). Those who have begun studying recovery experiences on a daily basis find support that they fluctuate daily (e.g., Hao et al., 2023). By examining not only the within-person variation in these variables but also novel mediators, the present work corroborates budding evidence that within-person variations in emotional labor are real and that there are likely more variables to consider than negative ones.

SA and DA to Mediators. The present study examined how daily emotional labor in service-providing jobs influences after-work recovery experiences, with perceived customer gratitude and motivation to detach from work as mediators. Further, budding research (e.g., Sayre et al., 2020) suggests that individuals have their own fluctuating amount of DA or SA, further suggesting that within-person measurement is most fitting for emotional labor. This study builds upon this evidence. Specifically, this research explored the differential effects of daily SA and DA on recovery experiences through these novel mediators. A key expectation of this study was that SA and DA would predict perceived customer gratitude. Consistent with prior research (Gabriel et al., 2023), DA was expected to be positively associated with perceived customer

gratitude because it fosters more positive customer interactions than SA. Findings did support this assumption about DA, suggesting that perceived gratitude may be influenced by factors such as an employee's emotional regulation strategy. In contrast, SA was hypothesized to have a negative association with perceived customer gratitude, as inauthentic emotional displays may be detectable by customers (e.g., Sliter et al., 2010) potentially leading to less appreciation. However, unexpectedly, SA had a positive and significant relationship with perceived customer gratitude. While both DA and SA were significantly and positively related to perceived customer gratitude, the magnitude of SA's relationship was smaller. This may indicate that customers are slightly less sensitive to SA in the short term and that both types of emotional labor can lead to positive or desirable outcomes.

This study also examined the extent to which SA and DA predicted motivation to detach from work. SA was hypothesized to be positively associated with motivation to detach, given that it is a resource-depleting emotional labor strategy (Grandey et al., 2019). Results supported this hypothesis, indicating that on days when employees engaged in higher levels of SA, they reported stronger motivation to disengage from work. This finding is consistent with prior research suggesting that employees who frequently suppress or fake emotions experience higher levels of strain, increasing their desire to disconnect from work-related thoughts and responsibilities (Sayre et al., 2020).

In contrast, DA was expected to be negatively related to motivation to detach, as DA is considered a less depleting and more resource-generating emotional labor strategy (Hülsheger & Schewe, 2011). However, results did not support this hypothesis; DA did positively and significantly relate to motivation to detach. This suggests that while DA may foster positive outcomes like perceptions of gratitude, it does not necessarily reduce employees' desire to

disengage from work. It should be noted that the magnitude of the relationship between DA and motivation to detach was smaller than SA. These findings highlight the complexity of emotional labor processes and suggest that the effects of DA on recovery-related mechanisms may depend on additional contextual or individual difference factors.

Mediation. The mediation analyses provided additional insights into the role of perceived customer gratitude and motivation to detach in shaping recovery experiences. Hypothesis 3a, which posited that SA would indirectly effect all recovery experiences through perceived customer gratitude, was unsupported. Similarly, hypothesis 3b, which proposed that DA would be indirectly and positively related to recovery experiences via customer gratitude, was not supported for most recovery outcomes, except for control. These findings suggest that while customer gratitude may play a role in employees' emotional labor experiences, it does not consistently translate into improved recovery outcomes at the within-person level.

Hypothesis 4a, which suggested that SA would indirectly and negatively impact psychological detachment and relaxation through motivation to detach, was also not supported. Similarly, hypothesis 4b, which proposed that DA would positively relate to detachment and relaxation via reduced motivation to detach, was not supported. These results indicate that motivation to detach may not serve as a key mechanism linking daily emotional labor to recovery experiences.

Post-Hoc Direct Effects. Direct effect results revealed that daily engagement in SA was significantly and negatively associated with perceived control, mastery, and psychological detachment at the end of the workday. This suggests that on days when employees engage in more SA they experience diminished autonomy (i.e., control), ability to practice new skills (i.e., mastery), and reduced ability to detach psychologically from work. These findings align with

prior research indicating that SA is emotionally depleting (Hülsheger et al., 2010) and may hinder employees' ability to recover after work (Sonnentag & Fritz, 2015). Further, this highlights the recovery paradox (Sonnentag et al., 2022), which occurs when resources are lowest, one's need for recovery is highest, but recovery may not happen. Prior evidence (e.g., Sayre et al., 2020) and the present study suggest that a costly and high-demand day at work may spill over into after-work time and leave employees with insufficient resources to engage in recovery activities and experience recovery. Interestingly, SA was not significantly related to relaxation, indicating that the depletion effects of SA may not extend to all facets of recovery in the same way.

Conversely, DA did not exhibit significant direct effects on any of the recovery dimensions at the within-person level. The theoretical perspectives suggest that DA is a more adaptive emotional regulation strategy than SA, and that should facilitate recovery (Gabriel et al., 2015). The present study results suggest that DA may minimize the costs associated with the disparity between genuinely felt emotions and expressed ones found in SA, thus safeguarding employee well-being (e.g., Deng et al., 2016) by not reducing the likelihood of recovery. The negative relationship between SA and recovery does suggest that DA may be more adaptive, even if there were no direct effects of DA on recovery. The lack of significant effects at the within-level may indicate that DA's impact on recovery is more stable across individuals rather than fluctuating within persons. Alternatively, the benefits of DA may be delayed or emerge only when considered alongside other organizational and individual factors, such as job autonomy or emotional regulation strategies (Beal et al., 2006). Overall, the present study corroborated previous research that argues DA's impact on well-being variables, like recovery, is less established and more difficult to articulate (e.g., Grandey & Sayre, 2019; Gabriel et al., 2023).

Theoretical Implications

Emotional Labor. In the last ten to twenty years, many emotional labor studies only measured SA (e.g., Thomas et al., 2018) or measured the aggregated total sum of emotional labor behaviors (Haung et al., 2015). Generally, the recent research on emotional labor explores SA and DA as meaningfully different within persons. This study addresses recent methodological calls (e.g., Chawla et al., 2020; Sonnentag et al., 2022) by capturing these dynamic, within-person processes, thus providing robust evidence that emotional labor experiences fluctuate meaningfully from day to day.

The present results highlight the nuanced differences between SA and DA regarding their impact on daily recovery experiences. Traditionally, SA has been viewed as unequivocally detrimental, while DA was often positioned as comparatively beneficial or less harmful. However, these findings offer a more complex perspective. In post hoc analyses, SA had a significant negative direct effect on perceived control, mastery, and psychological detachment at the end of the workday. We did not find the same relationships for DA, which had insignificant direct effects for all recovery experiences. Specifically, the present study's differential effects observed between SA and DA underscore the necessity of investigating these emotional labor strategies independently rather than aggregating them. By clearly differentiating these constructs, this research contributes to clarifying mixed findings in the emotional labor literature and supports recent calls (Gabriel et al., 2023; Grandey & Sayre, 2019) to deepen our understanding of their distinct outcomes.

Further, this project aimed to answer the call for research to examine positive experiences associated with emotional labor (Gabriel et al., 2023; Humphrey et al., 2015). The present study did find evidence to suggest that there are positive outcomes of both SA and DA (i.e., perceived

customer gratitude). This suggests that social experiences or social resources may be one valuable route in better understanding the desirable impacts of emotional labor. This "brighter" view of emotional labor is just emerging and deserves more attention in future research (Gabriel et al., 2020; Humphrey et al., 2015; Shoshan & Venz, 2021).

Additionally, limited findings in the present study could be due to the mechanism used to explain the emotional labor process. There are two commonly used theoretical mechanisms that explain how the emotional labor process can lead to positive or negative outcomes for an employee: 1) authenticity and 2) resource gain and resource loss (i.e., the resource perspectives; Grandey & Gabriel, 2015); the latter was used in this study. From the resource mechanism perspective, research suggests that those with resource loss can end up in a resource loss spiral, where, like a ripple effect, more and more resources are lost in the future; “in this loss cycle, exhaustion is the cause of undesirable behaviors that undermine effective functioning” (Bakker, 2023, p. 8). For example, if one does more emotional labor behaviors at work than usual, they may be less likely to have the resources to engage in reading a book or going on a jog after work. The post-hoc direct effects of SA on recovery generally support this notion. However, the lack of direct effect relationship between DA and recovery suggests it may not be this straight forward. Perhaps, measuring variables related to authenticity would paint a clearer picture on the daily emotional labor process, especially for DA, and how it can predict desirable outcomes, undesirable outcomes, and recovery experiences.

Motivation to Detach From Work. These hypotheses were formed based on Sayre et al. (2020) having shown that daily in emotional labor may lead to the psychological experiences of ego depletion and motivation to detach from work, ultimately helping to explain daily after-work alcohol use. Sayre et al. (2020), using the within-person approach, found that DA reduced one’s

motive to detach from work, therefore reducing the use of alcohol after work. Other research suggests that emotional labor may promote job withdrawal behaviors (Grandey, 2000). In this line of thought, motivation to detach is an indirect measure of resource loss or demanding work; we can infer that resources are low and work is demanding because employees want to detach from work. Interestingly, the present study showed that both SA and DA similarly influenced motivation to detach from work. This finding suggests that, in contrast to Sayre et al. (2020), regardless of the type of emotional labor strategy employed, employees experience increased levels of motivation to detach. Consequently, it highlights the complexity of motivation to detach as a mechanism in the recovery process, emphasizing that the motivational pathways involved may not differ substantially between types of emotional labor but rather hinge on the broader emotional demands faced by employees. Overall, the present study suggests that motivation to detach is a meaningful outcome variable for the emotional labor process as it was significantly related to SA and DA. However, it may not be a helpful mediator to understand recovery on a daily basis.

Perceived Customer Gratitude. While emotional labor has been traditionally viewed as a demanding process that depletes employee resources, recent perspectives emphasize the need to explore the flip side of the coin – identifying resources that may arise from emotional labor experiences. Further, the scant work that has been done on positive outcomes includes formalized customer feedback (e.g., feedback surveys, targeted research surveys) or returning customers, which are delayed forms positive social feedback (Chi & Chen, 2019). The inclusion of perceived customer gratitude as a mediator enriches the current theoretical frameworks, particularly within the JD-R model (Bakker & Demerouti, 2014) and W-HR perspective (ten Brummelhuis & Bakker, 2012). The present study suggests that positive interpersonal

experiences, such as perceived customer gratitude, serve as meaningful social resources that can buffer the negative spillover effects of emotional labor on recovery experiences. Resource perspectives suggest that if a resource is going to buffer the relationship between a job demand and outcome, it needs to match that type of demand (De Jong et al., 2008). Emotional labor is a social process and the present study suggests resource matching through social variables like perceived customer gratitude may be a valuable way to study emotional labor. This introduces a positive social dimension into resource-based theories, expanding beyond the typical focus on internal psychological or organizational resources and offering valuable insights into how interpersonal interactions at work influence non-work recovery processes.

Antecedents of Recovery Experiences. Those who have begun studying recovery experiences on a daily basis find support that they fluctuate daily (e.g., Hao et al., 2023). In the present study, the ICC indicates that within-person differences matter quite a bit. However, we must acknowledge that a large portion of the variability may be due to stable individual differences. This suggests that the jury is still out on whether recovery experiences should be studied at the within-level, between, or if there is value in looking at both.

The job demands, resources, and recovery literature does not paint a simple picture that more resources will lead to more recovery (e.g., Kinnunen & Feldt, 2013) or the opposing view that lower resources will lead to more recovery. The present study corroborates this complex picture. Further, the intersection of emotional labor and recovery has gone largely ignored (e.g., Xanthopoulou et al., 2017). Only a handful of studies have attempted to understand daily emotional labor, and the differential effects of SA and DA on a recovery experience highlight the complexity of the process. The distinction between SA and DA in their influence on employees advances our theoretical understanding by showing how the type of emotional labor strategy

employed has important consequences for employees' post-work psychological experiences. In the direct effects between emotional labor and recovery, we see that SA was significantly and negatively associated with perceived control, mastery, and psychological detachment at the end of the workday. These results suggest that lower resources, presumably lost in the demanding experience of SA, do not lead to more recovery - it might lead to less recovery in many cases. On the other hand, the present study provides limited evidence that more resources may lead to more recovery, but perhaps only for specific types of recovery experiences. For example, DA and SA were indirectly and positively related to recovery experiences of control through perceived customer gratitude. The significant direct effects of SA on psychological detachment, mastery and control, and the indirect effect of DA and SA on control suggest that the theory and study of recovery should consider the impact emotional labor has on recovery.

Meta-analytic evidence suggests that because recovery experiences are not highly correlated, we may expect different causal processes to explain psychological detachment, relaxation, mastery, and control (Hao et al., 2023). Notably, past research has underrepresented how external resources, particularly support from others, contribute to recovery despite empirical evidence supporting the positive impact of social support on recovery experiences (e.g., Chawla et al., 2020). Further, relying on resource perspectives and the differential effect of DA, employees may end up in a resource gain spiral; a resource gain spiral is when “those with more resources are less vulnerable and will be capable of gaining more resources in the future” (Silvan et al., 2021, p. 2). This study aimed to better explore this possibility. Although only one path between DA and recovery (i.e., control) through perceived customer gratitude was significant, this suggests that research should consider the important effects of social resources, such as perceived gratitude, to better understand the resource gain spiral. The present study suggests that

recovery experiences are unique in their relationships and that positive social interactions, perceptions, or support may be one piece of the puzzle that could help explain control experiences.

Practical Implications

Many of the practical implications of this work relate to antecedents of recovery experience. Overall, research on emotional labor and after-work recovery has the potential to impact millions of employees in a high-demand industry. Those who have begun studying daily recovery experiences find support that they fluctuate daily (e.g., Hao et al., 2023), and we find support for that here in our non-hypothesized direct effects at the within-level between SA and recovery experiences (i.e., control, mastery, psychological detachment). For practitioners and organizations, these findings highlight the need to mitigate the negative within-person effects of SA on recovery. Organizations can implement interventions such as training employees in alternative emotion regulation strategies (e.g., cognitive reappraisal) or providing greater autonomy to reduce the reliance on SA. Organizations should focus on fostering environments that acknowledge the emotional labor employees undertake daily. By recognizing emotional labor's taxing effects, organizations can proactively implement resources such as employee recognition programs or initiatives to enhance positive customer interactions, ultimately aiding employee recovery by promoting control experiences. Employees should aim to consciously engage in DA when possible, given its generally less detrimental effects compared to SA. Additionally, supervisors should be mindful of the fluctuating nature of emotional labor demands and offer resources to support recovery on high-demand days.

Limitations

Mturk. Regarding participant recruitment, Mturk has been a more widely accepted source of data (Buhrmester, Talaifar, & Gosling, 2018; Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010). Despite providing convenience and access to diverse populations, they may differ systematically from the broader working population in meaningful ways (e.g., motivation levels and socioeconomic status). Future studies should consider replicating the findings with organizational samples or sampling other platforms.

Common Method. The reliance on self-reported measures may introduce bias. It can result from participants' tendencies to respond in socially desirable ways, consistency motives, or measurement context effects. To mitigate this, researchers often recommend using multiple methods, such as combining self-reports with observational or behavioral measures or temporally separating measurements of predictor and outcome variables (Podsakoff et al., 2003).

Sample Size. Although the present study employed daily experience sampling, the sample size (N=116 and 1025 observations) might limit the generalizability of findings to broader populations. Smaller sample sizes can lead to difficulties with model convergence or parameter estimation in statistical modeling software like Mplus because complex models require a sufficient number of observations to reliably estimate parameters, ensure statistical power, and avoid instability or non-convergence issues. Specifically, insufficient data points can result in biased parameter estimates, increased standard errors, and reduced statistical power, potentially causing the model to fail in accurately representing the data structure or relationships being tested. Therefore, larger sample sizes are typically recommended to ensure robust and reliable model estimation, especially when estimating intricate or multilevel models in structural

equation modeling frameworks (Kline, 2015). Future work should explore these findings using larger samples to ensure robustness and external validity.

Recall. The measurement of recovery experiences relied on participants recalling their recovery experiences from the previous night, introducing potential recall biases. These biases could influence the accuracy of responses and affect the observed relationships. Future research could reduce this limitation by capturing recovery experiences immediately after they occur.

Measurement Choices. Unfortunately, not all recovery experiences were explained by the variables in this study. Alternative explanations may be due to choice in measuring recovery. It is important to remember that recovery experiences and recovery activities or behaviors are not the same thing; recovery activity (i.e., reading) can induce an individual to have a recovery experience (i.e., relaxation). Perhaps a different measurement of recovery could have stronger relationships with emotional labor, gratitude, and motivation to detach from work.
Different positive outcomes of emotional labor may include variables not studied in the present study and, therefore, could be alternative explanations. An employee may be motivated to engage in emotional labor to receive tips (i.e., financial rewards) or ensure a customer returns (i.e., social rewards; Bolton & Boyd, 2003); through these processes, the tip or returning customer may be more of an objective measure than perceived customer gratitude. Perhaps other types, more tangible rewards, are more salient and would be better mediators in the recovery process.

Finally, a key limitation of this study involves the use of two-item measures, which can present psychometric and analytical challenges. Scales composed of only two items often provide limited variance and can lead to instability in parameter estimates, lower internal

consistency reliability, and problems with confirmatory factor analysis (CFA), such as difficulty achieving model convergence or identification (Kline, 2016).

Future Directions

Previous research suggests that emotional labor is helpful for the organization's bottom line (e.g., Luong, 2005) but, sadly, damaging to an employee's well-being. We should delve into how emotional labor directly influences health-related experiences that could buffer the impact of the emotional labor process (i.e., emotional job display requirements and emotional labor behaviors) on outcomes such as after-work recovery. Additionally, the null direct effects of DA on recovery suggest that further investigation is needed to determine whether its benefits manifest in longer-term outcomes rather than daily fluctuations or if other positive social mediators can help explain the daily process.

Future research should also explore contextual factors that may moderate the relationship between emotional labor strategies and perceived customer gratitude. It is possible that organizational culture, customer expectations, or employees' ability to authentically engage in DA may play an important role in determining whether emotional labor strategies elicit gratitude from customers.

Future research to improve model convergence chances. A critical area for future research involves addressing challenges related to model convergence and measurement relevant to the topics within the present study. As highlighted earlier, several factors may have contributed to non-convergence using DSEM, such as sample size limitations, statistical power issues, model misspecification, and measurement inconsistencies. To enhance model convergence, future studies could explore several avenues to improve accurate and robust estimation of emotional labor, motivation to detach, perceived customer gratitude, and recovery.

First, developing better scales for measuring perceived customer gratitude could lead to more valid estimates and provide enough items per factor for models to more easily converge. New item generation to expand the scale from two items should be tailored to capture the gratitude employees perceive on a daily basis, particularly considering the intensity of customer interactions during emotionally demanding service work. A thorough psychometric evaluation of the scale (e.g., conducting confirmatory factor analysis to ensure it measures a single construct) should tell research if scale development progress is heading in the right direction or if perhaps a multi-factor scale would be better suited.

Secondly, increasing sample diversity—both in terms of industries and demographic variables—can help address issues with model non-convergence due to low variability in variables measured. Future research could expand recruitment beyond a single industry (e.g., service) to include other sectors like healthcare, retail, or education where emotional labor is also prevalent. By diversifying the sample across various industries and roles, research can capture a broader range of emotional labor experiences and recovery experiences. This should increase variance, helping the model capture the full spectrum of relationships between emotional labor strategies (SA vs. DA), perceived gratitude, and recovery experiences.

Conclusion

This study aimed to disentangle the emotional labor process by looking at the differential effects of two types of emotional labor while independently measuring recovery experiences, with novel mediators explaining the process. Overall, this study provides important insights into the within-person effects of emotional labor on recovery experiences. The findings suggest that SA hinders recovery on a day-to-day basis, while DA is not directly related to recovery. Furthermore, SA and DA increase motivation to detach from work and perceived customer

gratitude, highlighting the complex process of emotional labor. Additionally, perceived customer gratitude may be a meaningful mediator for the process of DA and SA on recovery, specifically for control experiences. Further exploring these dynamic relationships, future research can contribute to a more comprehensive understanding of how employees recover from emotionally demanding work experiences.

REFERENCES

Algoe, S.B., Gable, S.L., & Maisel, N.C. (2010). It's the little things: Everyday gratitude as a booster shot for romantic relationships. *Personal Relationships, 17*(2), 217–233. doi:10.1111/j.1475-6811.2010.01273.x.

Algoe, S.B., Kurtz, L.E., & Hilaire, N.M. (2016). Putting the "You" in "Thank You". *Social Psychological and Personality Science, 7*(7), 658–666. doi:10.1177/1948550616651681.

Ashforth, B.E., Humphrey, R. H. (1993). Emotional labor in service roles: The influence of identity. *Academy of Management Review, 18*(1), 88-115. https://doi.org/10.2307/258824

Bakker, A.B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Wellbeing: A complete reference guide, Volume III* (pp. 37–64). Chichester: Wiley-Blackwell. Retrieved from https://www.qqamano.com/oh/JDRTheory/JobDemandsResourcesTheory2014original.pdf

Bakker, A.B., Demerouti, E., & Sanz-Vergel, A. (2023). Job demands-resources theory: Ten years later. *Annual Review of Organizational Psychology and Organizational Behavior*, *10*(1), 25–53. https://doi.org/10.1146/annurev-orgpsych-120920-053933

Baumeister, R.F., Bratslavsky, E., Muraven, M., & Tice, D.M. (1998). Ego Depletion: Is the Active Self a Limited Resource? *Journal of Personality and Social Psychology*, *74*(5), 1252–1265. https://doi.org/10.1037/0022-3514.74.5.1252

Baumeister, R.F., Tice, D.M., & Vohs, K.D. (2018). The strength model of self-regulation: Conclusions from the second decade of willpower research. *Perspectives on Psychological Science, 13,* 141–145. http://dx .doi.org/10.1177/1745691617716946

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

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

Bergman, M.E., & Jean, V.A. (2016). Where have all the "workers" gone? A critical analysis of the unrepresentativeness of our samples relative to the labor market in the industrial–organizational psychology literature. *Industrial and Organizational Psychology*, *9*(1), 84-113. https://doi.org/10.1017/iop.2015.70

Bolton, S.C. & Boyd, C. (2003). 'Trolley Dolly or Skilled Emotion Manager? Moving on from Hochschild's Managed Heart'. *Work, Employment and Society, 17*(2), 289-308. https://doi.org/10.1177/0950017003017002004

Brotheridge, C., & Grandey, A.A. (2002). Emotional labor and burnout: Comparing two perspectives of "people work". *Journal of Vocational Behavior, 60*(1), 17-39. https://doi.org/10.1006/jvbe.2001.1815

Brotheridge, C.M., & Lee, R.T. (2003). Development and validation of the emotional labour scale. *Journal of Occupational and Organizational Psychology, 76*(3)*,* 365-379. https://doi.org/10.1348/096317903769647229

Buvik, K., Moan, I.S., & Halkjelsvik, T. (2018). Alcohol-related absence and presenteeism: Beyond productivity loss. *The International Journal of Drug Policy*, *58*, 71–77. https://doi.org/10.1016/j.drugpo.2018.05.005

Chan, P.H., Howard, J., Eva, N., & Herman, H.M. (2022). A systematic review of at-work recovery and a framework for future research. *Journal of Vocational Behavior, 137*, 103-747. https://doi.org/10.1016/j.jvb.2022.103747

Chau, S.L., Dahling, J.J., Levy, P.E., & Diefendorff, J.M. (2009). A predictive study of emotional labor and turnover. *Journal of Organizational Behavior, 30*(8)*,* 1151–1163. https://doi.org/10.1002/job.617

Chi, N.-W., & Chen, P.-C. (2019). Relationship matters: how relational factors moderate the effects of emotional labor on long-term customer outcomes. *Journal of Business Research*, *95*, 277–291. https://doi.org/10.1016/j.jbusres.2018.08.019

Côté, S. (2005). A social interaction model of the effects of emotion regulation on work strain. *The Academy of Management Review*, *30*(3), 509–530. https://doi.org/10.5465/AMR.2005.17293692

Côté, S., & Morgan, L.M. (2002). A longitudinal analysis of the association between emotion regulation, job satisfaction, and intentions to quit. *Journal of Organizational Behavior*, *23*(8), 947–962. https://doi.org/10.1002/job.174

de Jonge, J., & Dormann, C. (2003). DISC model: Demand-induced strain compensation mechanisms in job stress. In M. F. Dollard, A. H. Winefield, & H. R. Winefield (Eds.), *Occupational stress in the service professions* (pp. 43–74). Taylor & Francis. https://doi.org/10.4324/9780203422809-5

Demerouti E., Bakker A., Nachreiner F., & Schaufeli W.B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology, 86*, 499–512. doi: 10.1037/0021-9010.86.3.499

Diamond, A. (2013). Executive Functions. *Annual Review of Psychology*, *64*(1), 135–168. https://doi.org/10.1146/annurev-psych-113011-143750

Diefendorff, J.M., Croyle, M.H., & Gosserand, R.H. (2005). The dimensionality and antecedents of emotional labor strategies. *Journal of Vocational Behavior, 66*(2), 339-357. https://doi.org/10.1016/j.jvb.2004.02.001

Diefendorff, J.M., & Richard, E.M. (2003). Antecedents and consequences of emotional display rule perceptions. *Journal of Applied Psychology, 88*(2), 284–294. https://doi.org/10.1037/0021-9010.88.2.284

Frone, M.R. (2019). Employee psychoactive substance involvement: Historical context, key findings, and future directions. *Annual Review of Organizational Psychology and Organizational Behavior*, *6*(1), 273–297. https://doi.org/10.1146/annurev-orgpsych-012218-015231

Gabriel, A.S., Acosta, J.D., & Grandey, A.A. (2015). The value of a smile: Does emotional performance matter more in familiar or unfamiliar exchanges? *Journal of Business and Psychology*, *30*(1), 37–50. https://doi.org/10.1007/s10869-013-9329-2

Gabriel, A.S., Koopman, J., Rosen, C.C., Arnold, J.D., & Hochwarter, W.A. (2020). Are coworkers getting into the act? An examination of emotion regulation in coworker exchanges. *Journal of Applied Psychology, 105*(8), 907–929. https://doi.org/10.1037/apl0000473

Gabriel, A.S., Diefendorff, J.M., & Grandey, A.A. (2023). The acceleration of emotional labor research: Navigating the past and steering toward the future. *Personnel Psychology*, *76*(2), 511-545. https://doi.org/10.1111/peps.12576

Ganster, D.C., & Rosen, C.C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management, 39*(5), 1085-1122. https://doi.org/10.1177/0149206313475815

Gombert, L., Rivkin, W., & Schmidt, K.H. (2018). Indirect effects of daily self-control demands on subjective vitality via ego depletion: how daily psychological detachment pays off. *Applied Psychology: An International Review, 69*(2), 325–350. https://doi.org/10.1111/apps.12172

Gong, T., Park, J., & Hyun, H. (2020). Customer response towards employees' emotional labor in service industry settings. *Journal of Retailing and Consumer Services*, *52*, 101-899. https://doi.org/10.1016/j.jretconser.2019.101899

González-Romá, V., & Hernández, A. (2023). Conducting and evaluating multilevel studies: Recommendations, resources, and a checklist. *Organizational Research Methods, 26*(4), 629-654.

Goodwin R.E., Groth, M., &, Frenkel S.J. (2011). Relationships between emotional labor, job performance, and turnover. *Journal of Vocational Behavior*, *79*(2), 538–548. https://doi.org/10.1016/j.jvb.2011.03.001

Grandey, A.A. (2000). Emotion regulation in the workplace: a new way to conceptualize emotional labor. *Journal of Occupational Health Psychology, 5*(1), 95–110. https://doi.org/10.1037/1076-8998.5.1.95

Grandey, A.A. (2003). When "The Show Must Go on": Surface acting and deep acting as determinants of emotional exhaustion and reer-rated service delivery. *Academy of Management Journal*, *46*(1), 86–96. https://doi.org/10.5465/30040678

Grandey, A.A., Dickter, D.N., & Sin, H.P. (2004). The customer is not always right: Customer aggression and emotion regulation in service employees. *Journal of Organizational Behavior, 25*(3), 397-418. https://doi.org/10.1002/job.252

Grandey A.A., Chi N-W., & Diamond J.A. (2013). Show me the money! Do financial rewards for performance enhance or undermine the satisfaction from emotional labor? *Personnel Psychology, 66*(3), 569–612. https://doi.org/10.1111/peps.12037

Grandey, A., Foo, S.C., Groth, M., & Goodwin, R.E. (2012). Free to be you and me: A climate of authenticity alleviates burnout from emotional labor. *Journal of Occupational Health Psychology, 17*, 1–14. http://dx .doi.org/10.1037/a0025102

Grandey, A.A., & Gabriel, A.S. (2015). Emotional labor at a crossroads: Where do we go from here? *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 323–349. https://doi.org/10.1146/annurev-orgpsych-032414-111400

Grandey, A.A., & Melloy, R.C. (2017). The state of the heart: Emotional labor as emotion regulation reviewed and revised. *Journal of Occupational Health Psychology*, *22*(3), 407–422. https://doi.org/10.1037/ocp0000067

Grandey, A.A., & Sayre, G.M. (2019). Emotional labor: Regulating emotions for a wage. *Current Directions in Psychological Science : A Journal of the American Psychological Society*, *28*(2), 131–137. https://doi.org/10.1177/0963721418812771

Gross, J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271-299. https://doi.org/10.1037/1089-2680.2.3.271

Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Halbesleben, J.R., Neveu, J.P., Paustian-Underdahl, S.C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management, 40*(5), 1334-1364. https://doi.org/10.1177/0149206314527130

Hamaker, E. L., & Muthén, B. (2020). The fixed versus random effects debate and how it relates to centering in multilevel modeling. *Psychological Methods, 25*(3), 365–379. https://doi.org/10.1037/met0000239

Hao, L., Yu, X., & Meng, H. (2023). A validity reassessment of the recovery experience questionnaire with two extended confirmatory factor analyses. *International Journal of Mental Health and Addiction, 1-20*. https://doi.org/10.1007/s11469-023-01009-x

Haynes, A., Kemps, E., & Moffitt, R. (2016). Too depleted to try? Testing the process model of ego depletion in the context of unhealthy snack consumption. A*pplied Psychology Health and Well-Being, 8,* 386–404. http://dx.doi.org/10.1111/aphw.12080

Hochschild, A.R. (1983) *The Managed Heart*, Berkeley, CA, University of California Press.

Huang, J.L., Chiaburu, D.S., Zhang, X., Li, N., & Grandey, A.A. (2015). Rising to the challenge: Deep acting is more beneficial when tasks are appraised as challenging. *Journal of Applied Psychology*, *100*(5), 1398–1408. https://doi.org/10.1037/a0038976

Hülsheger, U.R., & Schewe, A.F. (2011). On the costs and benefits of emotional labor: A meta-analysis of three decades of research. *Journal of Occupational Health Psychology*, *16*(3), 361–389. https://doi.org/10.1037/a0022876

Humphrey, R.H., Ashforth, B.E., & Diefendorff, J.M. (2015). The bright side of emotional labor. *Journal of Organizational Behavior, 36(*6), 749–769. https://doi-org.ezproxy2.library.colostate.edu/10.100

Inzlicht, M., & Schmeichel, B.J. (2012). What is ego depletion? Toward a mechanistic revision of the resource model of self-control. *Perspectives on Psychological Science, 7,* 450–463. http://dx.doi.org/10.1177/ 1745691612454134

Ilies, R., Schwind, K.M., Wagner, D.T., Johnson, M.D., DeRue, D.S., & Ilgen, D.R. (2007). When can employees have a family life? The effects of daily workload and affect on work–family conflict and social behavior at work. *Journal of Applied Psychology, 92*(5), 1368–1379. https://doi.org/10.1037/0021-9010.92.5.1368

Johnson, H.-A. M., & Spector, P.E. (2007). Service with a smile: Do emotional intelligence, gender, and autonomy moderate the emotional labor process? *Journal of Occupational Health Psychology*, *12*(4), 319–333. https://doi.org/10.1037/1076-8998.12.4.319

Judge, T.A., Woolf, E.F., & Hurst, C. (2009). Is emotional labor more difficult for some than for others? A multilevel, experience-sampling study. *Personnel Psychology*, *62*(1), 57–88. https://doi.org/10.1111/j.1744-6570.2008.01129.x

Kammeyer-Mueller, J.D., Rubenstein, A.L., Long, D.M., Odio, M.A., Buckman, B.R., Zhang, Y., & Halvorsen-Ganepola, M.D.K. (2013). A meta-analytic structural model of dispositional affectivity and emotional labor. *Personnel Psychology*, *66*(1), 47–90. https://doi.org/10.1111/peps.12009

Kindt, S., Vansteenkiste, M., Cano, A., & Goubert, L. (2017). When is your partner willing to help you? The role of daily goal conflict and perceived gratitude. *Motivation and Emotions, 41*(6), 671–682. https://doi.org/10.1007/s11031-017-9635-5

Kline, R.B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

Klein, A.G., & Muth´en, B.O. (2007). Quasi-maximum likelihood estimation of structural equation models with multiple interaction and quadratic effects. *Multivariate Behavioral Research, 42*, 647-673.

Lockett, E. (2023). Your guide to understanding and managing workplace stress. Healthline. https://www.healthline.com/health/stress/workplacestress

Loi, R., Liu, Y., Lam, L.W., & Xu, A.J. (2016). Buffering emotional demands: the interplay between proactive personality and team potency. *Journal of Vocational Behavior, 95*, 128-137. https://doi.org/10.1016/j.jvb.2016.08.007

Luong, A. (2005). Affective service display and customer mood. *Journal of Service Research*, *8*(2), 117-130. https://doi.org/10.1177/1094670505279341

Marsh, H.W., Wen, Z., & Hau, K. (2004). Structural equation models of latent interactions: Evaluation of alternative estimation strategies and indicator construction. *Psychological Methods, 9*, 275-300.

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

Ones D.S., Kaiser R.B., Chamorro-Premuzic T., & Svensson C. (2017). Has industrial-organizational psychology lost its way? *The Industrial-Organizational Psychologist, 54*(4), 67–74.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Rivkin, W., Diestel, S., & Schmidt, K.-H. (2015). Psychological detachment: A moderator in the relationship of self-control demands and job strain. *European Journal of Work and Organizational Psychology, 24*(3), 376–388. https://doi.org/10.1080/1359432X.2014.924926

Ryan, R.M. & Deci, E.L. (2008). From ego depletion to vitality: Theory and findings concerning the facilitation of energy available to the self. *Social and Personality Psychology Compass, 2*(2), 702–717. https://doi.org/10.1111/j.1751-9004.2008.00098.x

Sayre, G.M., Grandey, A.A., & Chi, N.-W. (2020). From cheery to "cheers"? Regulating emotions at work and alcohol consumption after work. *Journal of Applied Psychology, 105*(6), 597–618. https://doi.org/10.1037/apl0000452

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

Shin, J., Taylor, M.S., & Seo, M.G. (2012). Resources for change: The relationships of organizational inducements and psychological resilience to employees' attitudes and behaviors toward organizational change. *Academy of Management journal*, *55*(3), 727-748. https://doi.org/10.5465/amj.2010.0325

Shoshan, H.N. & Venz, L. (2021). Daily DA toward coworkers: An examination of day-specific antecedents and consequences. Journal of Organizational Behavior, 43(1), 112-124. https://doi.org/10.1002/job.2555

Smith, A.K., & Bolton, R.N. (2002). The effect of customers' emotional responses to service failures on their recovery effort evaluations and satisfaction judgments. *Journal of the Academy of Marketing Science*, *30*(1), 5–23. https://doi.org/10.1177/03079450094298

Sonnentag, S. (2018). The recovery paradox: Portraying the complex interplay between job stressors, lack of recovery, and poor well-being. *Research in Organizational Behavior, 38*, 169-185. https://doi.org/10.1016/j.riob.2018.11.002

Sonnentag, S. (2017). Job demands-resources theory: Overview and future research directions. Work and Well-being, Emerald Publishing Limited, 1- 18.

Sonnentag, S., Venz, L., & Casper, A. (2017). Advances in recovery research: What have we learned? What should be done next? *Journal of Occupational Health Psychology, 22*(3), 365–380. https://doi.org/10.1037/ocp0000079

Sonnentag, S., Cheng, B.H., & Parker, S.L. (2022). Recovery from work: Advancing the field toward the future. *Annual Review of Organizational Psychology and Organizational Behavior*, 9(1), 33-60. https://doi.org/10.1146/annurev-orgpsych-012420-091355

Sonnentag, S., & Fritz, C. (2007). The Recovery Experience Questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology, 12*(3), 204–221. https://doi.org/10.1037/1076-8998.12.3.204

Sonnentag, S., & Fritz, C. (2015). Recovery from job stress: The stressor-detachment model as an integrative framework. *Journal of organizational behavior*, *36*(1), 72-103. https://doi.org/10.1002/job.1924

Sonnentag, S. (2012). Psychological detachment from work during leisure time: The benefits of mentally disengaging from work. *Current Directions in Psychological Science*, *21*(2), 114–118. https://doi.org/10.1177/0963721411434979

Sonnentag, S., & Geurts, S.A. (2009). Methodological issues in recovery research. In P. L. Perrewé & D. C. Ganster (Eds.), *Research in occupational stress and well-being: Current*

perspectives on job-stress recovery (Vol. 7, pp. 1–36). Emerald Group Publishing. https://doi.org/10.1108/S1479-3555(2009)0000007004

Steed, L.B., Swider, B.W., Keem, S., & Liu, J.T. (2021). Leaving work at work: A meta-analysis on employee recovery from work. *Journal of Management, 47*(4), 867–897. https://doi.org/10.1177/0149206319864153

ten Brummelhuis, L. L., & Bakker, A. B. (2012). A Resource Perspective on the Work-Home Interface: The Work-Home Resources Model. *The American Psychologist, 67*(7), 545–556. https://doi.org/10.1037/a0027974

Thomas, J.S., Olien, J.L., Allen, J.A., Rogelberg, S.G., & Kello, J.E. (2018). Faking it for the higher-ups: Status and SA in workplace meetings. *Group & Organization Management, 43*(1), 72–100. https://doi.org/10.1177/1059601116687703

Trougakos, J.P., Jackson, C.L., & Beal, D.J. (2011). Service without a smile: comparing the consequences of neutral and positive display rules. *Journal of Applied Psychology, 96*(2), 350–362. https://doi.org/10.1037/a0021880

van Wijhe, C., Peeters, M., Schaufeli, W., & Ouweneel, E. (2013). Rise and shine: Recovery experiences of workaholic and nonworkaholic employees. *European Journal of Work and Organizational Psychology*, *22*(4), 476–489. https://doi.org/10.1080/1359432X.2012.663527

Wagner, D. T., Barnes, C. M., & Scott, B. A. (2014). Driving it home: How workplace emotional labor harms employee home life. *Personnel Psychology, 67*(2), 487–516. https://doi.org/10.1111/peps.12044

World Health Organization. (2019). Burn-out an "occupational phenomenon." International Classification of Diseases. https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases

Xanthopoulou, D., Bakker, A.B., Oerlemans, W.G.M., & Koszucka, M. (2017). Need for recovery after emotional labor: Differential effects of daily deep and surface acting. *Journal of Organizational Behavior, 9*(4), 481–494. https://doi.org/10.1002/job.2245

Zhan, Y., Wang, M., & Shi, J. (2016). Interpersonal process of emotional labor: The role of negative and positive customer treatment. *Personnel Psychology, 69*(3), 525–557. https://doi.org/10.1111/peps.12114

APPENDIX A: COMPENSATION

Element	**Compensation in USD**
Screener Survey	$0.30
Baseline Survey	$1.50
Morning Surveys	$0.75 (total of $10.50 for all 14 days)
Afternoon Surveys	$0.55 (total of $7.70 for all 14 days)
Bonus: 7 daily surveys	$1.00
Bonus: 18 daily surveys	$2.50
Bonus: 24 daily surveys	$4.00
Total Possible	$27.50

APPENDIX B: INITIAL SCREENING SURVEY

Customer Interaction

Do you interact with clients or customers on a daily basis at your job?

1 = Yes, I interact with clients or customers on a daily basis

2 = No, I do not interact with clients or customers on a daily basis Substance Abstinence

Sex

The term, sex, refers to the "genetic, hormonal, anatomical, and psychological characteristics on whose basis one is labeled at birth". What do you consider your sex to be?

1 = Male, 2 = Female, 3 = Intersex, 4 = Prefer to not Answer

Gender

The term, gender, refers to the "socially constructed characteristics of women and men – such as norms, roles, and relationships of and between groups of women and men." cisgender means that your gender corresponds to your sex assigned at birth, while transgender means that your gender does not correspond to your reassigned sex. What do you consider your gender to be?

1 = cisgender Woman, 2 = Transgender Woman, 3 = Gender Queer, 4 = Transgender Man, 5 = cisgender Man, 6 = Prefer not to answer

Age

What is your age in years?

Race

What is your race?

1 = Indigenous, 2 = Black or African American, 3 = Asian American, 4 = White, 5 = Prefer not to answer

Follow up question: 1 = Inuit, 2 = Native American, 3 = Native Hawaiian, 4 = Pacific Islander, 5 = Prefer not to answer

Ethnicity

What is your ethnicity?

1 = Hispanic, 2 = Latinx, 3 = Chicanx, 4 = Non-Hispanic/Latinx/Chianx, 5 = Prefer not to answer

Work Hours Per Week

How many hours do you work in a typical week in your other paid job (i.e. NOT your Mturk position)? [enter number] Work Schedule Which of the following best describes your work schedule in your other paid job (i.e., NOT your Mturk position)?

1 = Regular Daytime Schedule (9am-5pm), 2 = Afternoon Shift (1pm-9pm) 3 = Evening Shift (4pm-midnight), 4 = Overnight Shift (midnight-8am), 5 = Variable Schedule (one that changes from day to day), 6 = Rotating Shift (one that changes from days to evenings or nights), 7 = Other (please specify:)

APPENDIX C: EMOTIONAL LABOR

(Brotheridge & Lee, 2003)

For the next questions, think about your experiences at work today. How often did you engage in the following behaviors?

Surface Acting

1. Resist expressing my true feelings
2. Pretend to have emotions that I don't really have
3. Hide my true feelings about a situation

Deep Acting

4. Make an effort to actually feel the emotions that I need to display to others
5. Try to actually experience the emotions that I must show
6. Really try to feel the emotions I have to show as part of my job

1 = Never, 2 = Rarely, 3 = Some of the Time, 4 = Most of the Time, 5 = Always

APPENDIX D: MOTIVE TO DETACH

(Sonnentag & Fritz, 2007)

For the next questions, think about how much you agree or disagree with the following statements.

1. I want to forget about work
2. I need to detach from work

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

APPENDIX E: PERCEIVED CUSTOMER GRATITUDE

(Kindt, Vansteenkiste, Cano, & Goubert, 2017)

For the next questions, think about your customers at work today. How much do you agree or disagree with the following statements?

1. My customers expressed appreciation
2. My customers showed gratefulness

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

APPENDIX F: RECOVERY EXPERIENCES

(Sonnentag & Fritz, 2007)

For the next questions, think about your time after work yesterday. What extent do you agree or disagree with the following statements?

Psychological Detachment

1. I forgot about work

2. I didn't think about work at all

3. I distanced myself from my work

4. I got a break from the demands of work

Relaxation

5. I kicked back and relaxed

6. I did relaxing things

7. I used the time to relax

8. I took time for leisure

Mastery

9. I learned new things

10. I looked for intellectual challenges

11. I did things to challenge me

12. I did something to broaden my horizons

Control

13. I felt like I could decide for myself what to do

14. I decided my own schedule

15. I determined for myself how I would spend my time

16. I took care of things the way I wanted them done

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree