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Do It Now or Later? How Responsibility, Self-Efficacy and Stress
Appraisal Shape Workplace Procrastination

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Niklas Christian Borck BSc

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Univ.-Prof. Mag. Dr. Roman Prem

Abstract

Workplace procrastination represents a significant organizational challenge with substantial economic and psychological costs. While traditional research has examined procrastination as a stable personality trait, recent evidence suggests it fluctuates based on situational factors. This thesis investigated how daily variations in outcome responsibility influence procrastination through cognitive appraisal processes, and whether self-efficacy moderates these relationships. Drawing on the Challenge-Hindrance Stressor Model and the Appraisals, Attributions, Adaptation model, I proposed that responsibility affects procrastination indirectly through both challenge and hindrance appraisals, with self-efficacy shaping these appraisal processes. Using a diary study methodology, 205 employees completed surveys twice daily over 10 workdays, yielding 1,404 observations. Multilevel analyses revealed no direct relationship between daily responsibility and procrastination. However, responsibility showed a positive indirect relationship with procrastination through hindrance appraisal, while the indirect effect through challenge appraisal was non-significant. Self-efficacy moderated the responsibility-challenge appraisal relationship, with stronger positive associations for employees with higher self-efficacy, but did not moderate the responsibility-hindrance appraisal relationship. These findings challenge traditional assumptions that responsibility uniformly benefits employees, demonstrating instead that it can trigger competing cognitive appraisals with differential behavioral consequences. The results suggest that increasing outcome responsibility without considering individual and contextual factors may inadvertently promote procrastination through hindrance appraisals. Organizations should therefore adopt nuanced approaches to job design that foster challenge appraisals while preventing hindrance perceptions, supported by systematic development of employee self-efficacy to optimize the balance between accountability and self-regulatory success.

Keywords: workplace procrastination, responsibility, challenge-hindrance appraisal, self-efficacy, diary study

Zusammenfassung

Prokrastination am Arbeitsplatz stellt eine bedeutende organisationale Herausforderung mit erheblichen wirtschaftlichen und psychologischen Kosten dar. Während traditionelle Forschung Prokrastination als stabile Persönlichkeitseigenschaft untersuchte, deuten neuere Erkenntnisse auf situationsbedingte Fluktuationen hin. Diese Masterarbeit untersuchte, wie tägliche Variationen der Arbeitsplatzverantwortung Prokrastination durch kognitive Bewertungsprozesse beeinflussen und ob Selbstwirksamkeit diese Beziehungen moderiert. Basierend auf dem Challenge-Hindrance Stressor Model und dem Appraisals, Attributions, Adaptation Model wurde postuliert, dass Verantwortung Prokrastination indirekt sowohl durch Herausforderungs- als auch Hindernis-Bewertungen beeinflusst, wobei Selbstwirksamkeit diese Bewertungsprozesse prägt. In einer Tagebuchstudie füllten 205 Arbeitnehmer über 10 Arbeitstage zweimal täglich Fragebögen aus, was 1.404 Beobachtungen ergab. Mehrebenenanalysen zeigten keine direkte Beziehung zwischen täglicher Verantwortung und Prokrastination. Verantwortung wies jedoch einen positiven indirekten Zusammenhang mit Prokrastination durch Hindernis-Bewertung auf, während der indirekte Effekt durch Herausforderungs-Bewertung nicht signifikant war. Selbstwirksamkeit moderierte die Beziehung zwischen Verantwortung und Herausforderungs-Bewertung, mit stärkeren positiven Assoziationen bei Mitarbeitern mit höherer Selbstwirksamkeit. Für die Beziehung zwischen Verantwortung und Hindernis-Bewertung ließ sich jedoch keine Moderation finden. Diese Ergebnisse stellen traditionelle Annahmen in Frage, dass Verantwortung Mitarbeitern einheitlich zugutekommt, und zeigen stattdessen, dass sie konkurrierende kognitive Bewertungen mit unterschiedlichen Verhaltenskonsequenzen auslösen kann. Die Ergebnisse legen nahe, dass eine Erhöhung der Arbeitsplatzverantwortung ohne Berücksichtigung individueller und kontextueller Faktoren unbeabsichtigt Prokrastination durch Hindernis-Bewertungen fördern kann. Organisationen sollten daher differenzierte Ansätze zur Arbeitsgestaltung verfolgen, die Herausforderungs-Bewertungen fördern und gleichzeitig Hindernis-Wahrnehmungen verhindern, unterstützt durch systematische Entwicklung der Selbstwirksamkeit.

Keywords: Prokrastination am Arbeitsplatz, Verantwortung, Herausforderungsbewertung/Hindernisbewertung, Selbstwirksamkeit, Tagebuchstudie

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Introduction

Every day, employees worldwide spend between 1.5 to 3 hours on non-work activities during work hours, costing organizations an estimated \$8,875 per employee annually through workplace procrastination (D'Abate & Eddy, 2007; Paulsen, 2015). This staggering economic impact represents only the tip of the iceberg. Beneath lies a complex web of compromised project success, missed deadlines, decreased workplace safety, and profound personal consequences including poor mental health and financial difficulties (Gersick, 1989; O'Donoghue & Rabin, 1999; Sirois, 2007; Stead et al., 2010; Van Eerde, 2000). As the English poet Edward Young aptly termed it, procrastination truly is "the thief of time" (1742/1989, p.12), yet despite its pervasive impact, our understanding of what drives workplace procrastination remains surprisingly limited.

Traditional organizational psychology has predominantly conceptualized procrastination as a stable personality trait, focusing on individual differences in conscientiousness, self-control, and time management skills (Steel, 2007; Van Eerde, 2003). However, recent diary studies have revealed substantial within-person fluctuations in procrastination behaviors across workdays, suggesting that situational workplace factors may play a more critical role than previously recognized (Kühnel et al., 2016, 2018; Prem et al., 2018). The discovery of this dynamic nature of procrastination opens new avenues for understanding how specific job characteristics might trigger or prevent procrastination on a day-to-day basis. Among these characteristics, outcome responsibility—the degree to which employees feel personally accountable for work outcomes—emerges as a particularly intriguing factor due to its dual nature as both a motivating force and potential stressor (Cavanaugh et al., 2000; Hackman & Oldham, 1976).

The relationship between responsibility and procrastination presents a theoretical puzzle. On one hand, the Job Characteristics Model suggests that responsibility enhances intrinsic motivation and should therefore reduce procrastination (Hackman & Oldham, 1976). On the other hand, contemporary stress research recognizes that workplace demands, including responsibility, can be appraised as either challenges that energize or hindrances that impede progress, with vastly different behavioral consequences (Cavanaugh et al., 2000; Searle & Auton, 2015). This ambiguity is compounded by evidence that identical stressors can be appraised differently by the same individual across situations, suggesting that the relationship of responsibility and procrastination may depend critically on how it is cognitively evaluated (Webster et al., 2011). Furthermore, individual differences such as self-efficacy—one's belief in their capability to execute required actions—may shape whether

responsibility is perceived as an opportunity for growth or a threat to be avoided (Bandura, 1997; Ventura et al., 2015). To illustrate this, employees with higher professional self-efficacy tend to perceive more challenge- and less hindrance-stressors, while those with lower self-efficacy tend to display task-avoidant behaviors (Ventura et al., 2015).

Despite the theoretical and practical importance of understanding how workplace demands influence procrastination, to my knowledge no studies have examined the day-to-day relationship between responsibility and procrastination through the lens of cognitive appraisal processes. This gap is particularly relevant given that modern organizations increasingly rely on distributed responsibility and autonomous work arrangements, potentially creating conditions that either foster or prevent procrastination. By examining responsibility's effects through appraisal pathways and considering the moderating role of self-efficacy, this thesis addresses fundamental questions about when workplace demands facilitate versus impede effective self-regulation.

Therefore, this diary study investigates how daily variations in outcome responsibility influence procrastination through challenge and hindrance appraisal mechanisms, and whether self-efficacy moderates these relationships. Specifically, I examine: (1) whether responsibility has a direct relationship with workplace procrastination; (2) whether responsibility indirectly relates to procrastination through its influence on challenge and hindrance appraisals; and (3) whether self-efficacy moderates how responsibility is appraised. By addressing these questions using a within-person approach that captures daily fluctuations in workplace experiences, this research advances understanding of procrastination as a dynamic phenomenon shaped by the interplay between situational demands and individual resources.

This thesis aims to make several important contributions to the work and organizational psychology literature on workplace procrastination and stress appraisal. First, by examining procrastination through a diary study methodology, this research advances understanding of procrastination as a dynamic workplace phenomenon that fluctuates based on daily work characteristics and cognitive appraisals, moving beyond traditional trait-based conceptualizations. Second, the thesis tries to clarify the complex relationship between responsibility and procrastination by identifying dual cognitive pathways through which this workplace demand operates, addressing the theoretical ambiguity surrounding whether responsibility functions as a purely beneficial job characteristic or a potential stressor. Third, by indicating that responsibility can simultaneously trigger both challenge and hindrance appraisals, this research extends the Challenge-Hindrance Stressor Model to show that

workplace demands cannot be neatly categorized into discrete types, but rather exist on a continuum of subjective interpretation. Fourth, the examination of self-efficacy as a boundary condition provides insights into when and for whom responsibility is likely to be appraised positively versus negatively. Finally, from a practical perspective, this research may offer evidence-based guidance for organizations seeking to design jobs that harness the motivational benefits of responsibility while minimizing the risk of procrastination. Together, these contributions advance theoretical understanding while providing insights with the potential to reduce the substantial economic and psychological costs associated with workplace procrastination.

Theoretical Background and Hypotheses

Workplace Procrastination: Definition, Prevalence, and Impact

Procrastination represents a complex self-regulatory failure that has garnered substantial attention in organizational psychology research. At its core, procrastination can be defined as "the delay that is due to the avoidance of the implementation of an intention" (Van Eerde, 2000, p. 375). This definition encapsulates a central paradox of procrastination: individuals form intentions to act but fail to translate these intentions into behavior (Lay, 1986; Steel, 2007). Central to understanding procrastination is that it is not primarily a motivational deficit but rather represents a breakdown in self-regulatory processes (Kuhl & Beckmann, 1994), and more specifically the lack of ability to initiate intended actions despite having the motivation to do so.

In addition to the economic impact of workplace procrastination (D'Abate & Eddy, 2007; Paulsen, 2015), individual consequences extend far beyond simple task delays. Procrastinators experience heightened stress levels, increased likelihood of missing deadlines, suboptimal deadline setting, reduced task preparation time, and inferior work quality (Ariely & Wertenbroch, 2002; Tice & Baumeister, 1997; Van Eerde, 2003). High levels of procrastination are also associated with shorter employment duration, underemployment and lower salaries (Nguyen et al., 2013). Additionally, the discrepancy between intentions and actions can create frustration that impedes the positive experience of making progress on work tasks (Amabile & Kramer, 2011).

The prevalence of procrastination in organizational settings has seen a marked increase over recent decades. In a survey of over 16,000 individuals worldwide, 20-25% identified themselves as chronic procrastinators (Ferrari et al., 2007). This figure has risen from approximately 5% in the 1970s, thus representing a four to five-fold increase (Steel, 2010). This substantial increase may be associated with the more flexible, dynamic nature of

the modern workplace and increased workloads, which provide individuals with greater opportunities to avoid undesirable tasks (Carr, 2010; Orhan et al., 2021). Demographic patterns reveal that younger men are particularly prone to chronic procrastination, with men in general appearing more likely to procrastinate than women (Steel & Ferrari, 2013). Employment status also correlates with procrastination tendencies, as procrastinators are more likely to be unemployed or working part-time relative to non-procrastinators (Nguyen et al., 2013).

Occupational differences in procrastination rates reveal interesting patterns that align with job characteristics and autonomy levels. White-collar workers report higher procrastination rates than blue-collar workers (Hammer & Ferrari, 2002), while self-employed professionals show even higher rates than traditional employees (Ferrari et al., 2005). These differences may reflect varying levels of job autonomy and self-regulation demands across occupations. There are also indications that jobs with higher requirements regarding motivational skills are less likely to be filled by procrastinators (Nguyen et al., 2013).

Theoretical developments in this millennium have begun to distinguish between two types of procrastination: passive and active (Choi & Moran, 2009; Chu & Choi, 2005). Passive procrastination defines the more traditional and negatively oriented conceptualization wherein individuals fail to act, or delay action, and subsequently yield poor outcomes. It is commonly associated with sub-par time management (Chauhan et al., 2020) and self-handicapping strategies to protect the ego in event of failure (Martin et al., 2003). In contrast, active procrastination represents a deliberate and strategic choice correlated with positive organizational outcomes, characterized by (1) desire for pressure, (2) intentional decision to procrastinate, (3) the ability to meet deadlines, and (4) outcome satisfaction (Choi & Moran, 2009; Chu & Choi, 2005). Key to this type of procrastination is the intention of procrastinating combined with an outcome that the individual is satisfied with. Active procrastinators are also more closely related to non-procrastinators than to passive procrastinators in their outcomes and behaviors (Chu & Choi, 2005; Wessel et al., 2019). Thus, to keep the differentiation between procrastination and no procrastination clearer, the current thesis focuses specifically on passive procrastination, the traditional form that represents a self-regulatory failure rather than a strategic choice.

The phenomenon of procrastination has been examined through multiple theoretical lenses, each offering unique insights into its nature and mechanisms. From the perspective of differential psychology, procrastination can be conceptualized as a relatively stable

personality trait that correlates with other individual differences. Meta-analytic evidence consistently demonstrates negative relationships between procrastination and conscientiousness and trait self-efficacy, while showing positive associations with impulsiveness and distractibility (Steel, 2007; Van Eerde, 2003). Clinical psychology approaches procrastination as a maladaptive behavior pattern associated with negative psychological outcomes. Research within this framework has established strong links between procrastination and anxiety, depression, stress, and overall diminished well-being (Sirois, 2007; Stead et al., 2010), suggesting that procrastination could be both a symptom of psychological distress and a contributing factor to mental health difficulties. These varying manifestations of procrastination have been examined through multiple theoretical lenses.

From a motivational and volitional psychology perspective, procrastination is characterized as a self-regulatory failure involving deficits in both motivation maintenance and volitional control (Steel, 2007). Self-regulation encompasses the ability to autonomously regulate goal-directed behavior through both deliberate and implicit processes (Kuhl, 2000; Vohs & Baumeister, 2011). These processes include counteracting anticipated obstacles during goal pursuit (Zhang & Fishbach, 2010), resisting temptations that might derail goals (Muraven & Baumeister, 2000), maintaining attentional focus (Beal et al., 2005), and effectively allocating effort among competing goals (DeShon et al., 2004). When these self-regulatory functions are impaired, the gap between intention and action widens, resulting in procrastination. Thus, this perspective suggests that procrastinators may possess adequate motivation but lack the volitional skills necessary to transform intentions into behavior (Howell et al., 2006).

Temporal Motivation Theory by Steel and König (2006) provides a framework that further expands on these perspectives. It conceptualizes procrastination through the lens of time discounting, proposing that motivation is comprised of an interplay of expectancy, value, impulsiveness, and delay. This model postulates that procrastination occurs through preference reversal, where immediately available temptations override distal but important goals, particularly when tasks are perceived as aversive or outcomes are temporally distant.

In organizational psychology, procrastination has most often been categorized as a stable personality trait. Steel (2007) found test-retest reliabilities for procrastination to be as high as .73, and stated that up to 22% of the trait variation is associated with genetic factors. However, recent research has indicated that this traditional trait-based view may not be completely accurate, with diary studies revealing substantial within-person fluctuations in procrastination behaviors across days and situations (Kühnel et al., 2016, 2018; Prem et al.,

2018). One explanation for this phenomenon could be day-to-day variation in self-regulation (Kühnel et al., 2016), in alignment with motivational and volitional psychology perspectives outlined earlier. These findings indicate that employees not only differ from one another in their average procrastination levels but also vary in their own procrastination tendencies from day to day. This aligns with research on daily task completion (Claessens et al., 2010), showing that employees' ability to initiate and complete tasks varies between individuals as well as within individuals, thereby indicating that contextual factors interact with individual characteristics to produce procrastination behaviors. The recognition of procrastination's more dynamic nature may offer new ways of understanding and addressing workplace procrastination. Rather than viewing procrastination as an immutable characteristic, this perspective implies that situational modifications and targeted interventions may be used to reduce procrastination behaviors.

Expanding on this, procrastination can also be examined from a situational perspective, which is particularly relevant for workplace contexts. The main emphasis of this perspective is how environmental factors can influence procrastination behaviors. Task characteristics such as difficulty, ambiguity, and aversiveness significantly impact procrastination likelihood (Klingsieck, 2013). This perspective is central for a more detailed understanding of procrastination in the workplace and in the context of organizational psychology, as it suggests that organizational and job design factors can play substantial roles in either facilitating or inhibiting timely task completion.

The workplace environment as one such design factor significantly shapes procrastination tendencies through various job characteristics and organizational factors. The Job Demands-Resources Model by Bakker and Demerouti (2007) provides a useful framework in which to view these influencing factors. It proposes that all job characteristics can be classified as either job demands or job resources. Job demands are aspects of work requiring sustained effort and associated with physiological or psychological costs (e.g., work pressure, emotional demands, role ambiguity). Job resources are aspects that help achieve work goals, reduce demands, or stimulate personal growth (e.g., autonomy, social support, feedback). The model outlines two processes: a health impairment process centred on strain where continued high demands can lead to exhaustion and burnout, and a motivational process where resources can foster engagement and positive outcomes. Importantly, job resources can buffer the negative impact of job demands, and optimal well-being occurs when demands and resources are balanced. Jobs characterized by low demands and limited

resources may often lead to boredom, low motivation, and increased procrastination (Reijseger et al., 2013).

Further job characteristics associated with increased procrastination include task ambiguity, limited decision-making autonomy, repetitive activities requiring minimal creativity, and tasks lacking in challenge or meaning (Wan et al., 2014). These job characteristics fail to provide the intrinsic value necessary for sustained engagement (Ryan & Deci, 2000). In contrast, job enrichment and opportunities for meaningful work are associated with reduced procrastination (Loneragan & Maher, 2000).

Additionally, the relationship between job autonomy and procrastination reveals further intriguing complexities. While highly regulated and supervised work environments (e.g., in a manufacturing process) may in theory limit opportunities for individual differences in procrastination to manifest (Withey et al., 2005), research paradoxically shows that employees in constrained work environments often report higher procrastination rates (Meyer et al., 2009). This seemingly counterintuitive finding may occur due to the increase of self-regulation demands that come with higher job autonomy (Behling, 1998).

This more dynamic understanding of procrastination outlined above aligns with the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984) and its extensions, such as the Appraisals, Attributions, Adaptation (AAA) Model of Job Stress (Mackey & Perrewé, 2014). Central to these models is the role of individual cognitive appraisal of stressors in shaping behavioral responses to workplace demands. The fluctuating nature of procrastination suggests that factors such as daily variations in self-efficacy, work characteristics, and stress appraisals may significantly influence whether employees engage in timely task completion or procrastination behaviors. This connection will be expanded upon later in the thesis.

The multifaceted nature of procrastination explained above, encompassing stable individual differences, situational influences, and dynamic within-person processes, provides the foundation for examining how outcome responsibility affects procrastination through cognitive appraisal mechanisms. By focusing specifically on passive procrastination—the traditional form representing self-regulatory failure rather than strategic delay—this thesis examines how workplace demands interact with individual resources to influence dysfunctional delay behaviors. Understanding procrastination as a self-regulatory failure that fluctuates based on situational factors and individual appraisals creates a theoretical bridge to examining how responsibility as a workplace demand might either exacerbate or mitigate

procrastination depending on how it is appraised and the individual resources available to manage it.

Outcome Responsibility as a Dynamic Workplace Demand—Challenge or Hindrance?

Responsibility represents a fundamental yet complex construct in organizational psychology that can carry significant implications for employee performance and behavior. Despite its relevance in workplace contexts, responsibility remains an elusive concept characterized by diverse definitions and operationalizations across research domains (Schlenker et al., 1994). This conceptual ambiguity presents significant challenges for understanding how responsibility influences workplace behaviors, in the case of this thesis particularly procrastination. It is therefore essential to identify a fitting operationalization.

A review of relevant literature reveals multiple conceptualizations of responsibility in a work-related context, each emphasizing different aspects of this multifaceted construct. Researchers have examined responsibility for things/items, such as projects, finances, and equipment (Caplan et al., 1975; Webster et al., 2011); responsibility for other people, including supervision and safety obligations (Caplan et al., 1975; Schaubroeck & Fink, 1998); proactive responsibility, involving voluntary assumption of duties (Morrison & Phelps, 1999); accountability for actions (Ferris et al., 1997); production responsibility for output quantity and quality (Jackson et al., 1993); and outcome responsibility for work results (Bajorski, 2022; Hackman & Oldham, 1975, 1976; Schmitt et al., 2015). This multitude of types of responsibility, often studied without explicit definition or theoretical grounding, creates significant obstacles for comparing findings and developing coherent theoretical frameworks (Bajorski, 2022).

Aligned with the multitude of conceptualizations of responsibility, there are countless theoretical frameworks containing responsibility as a factor in an organizational context. This thesis focuses on two prominent models that can provide complementary perspectives on how responsibility functions in organizational contexts and influences employee behavior, namely the Job Characteristics Model (Hackman & Oldham, 1976) and the Challenge-Hindrance Stressor Model (Cavanaugh et al., 2000).

For the context of this thesis, I based my operationalization on Bajorski (2022) and adopted the conceptualization of outcome responsibility as defined within the Job Characteristics Model: the degree to which employees feel personally accountable for the outcomes of their work (Hackman & Oldham, 1975, 1976). Focusing specifically on outcome responsibility offers several advantages. First, it provides conceptual clarity by distinguishing responsibility for results from other forms of responsibility in the workplace mentioned

previously. Second, as opposed to some other forms of responsibility, such as responsibility for other people or production responsibility, outcome responsibility can apply across diverse occupational contexts, as it can be assumed that nearly every job involves some degree of accountability for work results. Finally, outcome responsibility captures the experience of feeling accountable for work consequences, which may have direct implications for self-regulatory behaviors such as procrastination.

The Job Characteristics Model (Hackman & Oldham, 1976) positions responsibility for outcomes as one of three critical psychological states that mediate the relationship between job design features and work outcomes. According to this model, experienced responsibility for work outcomes emerges primarily from job autonomy—the degree to which work provides freedom, independence, and discretion in scheduling and determining procedures. When employees possess autonomy, work outcomes depend more directly on their own efforts and decisions rather than external factors such as managerial oversight or rigid procedures. This personal agency fosters a sense of ownership and accountability for results.

The Job Characteristics Model proposes that experienced responsibility for outcomes, along with experienced meaningfulness and knowledge of results, generates positive personal and work outcomes such as high intrinsic motivation, high work performance, high work satisfaction and low absenteeism and turnover through a self-reinforcing cycle. When employees perceive that they are personally responsible for meaningful work outcomes and receive feedback about their performance, successful results produce positive internal feelings that motivate continued high performance. Conversely, poor outcomes under conditions of personal responsibility create dissatisfaction that prompts improvement efforts (Hackman & Lawler, 1971). Empirical research has shown ambivalent results regarding the validity of the model (Boonzaier et al., 2001; Fried & Ferris, 1987). For example, positive relationships between the core dimensions and the outcomes intrinsic motivation and work satisfaction were found, but relationships between the core dimensions and the critical psychological states were not as clear (Boonzaier et al., 2001; Fried & Ferris, 1987).

In summary, the Job Characteristics Model provides a well-founded starting point to determine the effects of core dimensions of work on motivation, with responsibility being a central component. Consequent studies (Boonzaier et al., 2001; Fried & Ferris, 1987) indicate that while the model may be a satisfactory basis for further research, there are fairly significant weaknesses that must be considered (Bajorski, 2022). It is therefore important to

consider additional models for the context of this thesis, such as the Challenge-Hindrance Stressor Model (Cavanaugh et al., 2000).

The Challenge-Hindrance Stressor Model (Cavanaugh et al., 2000) offers a more nuanced perspective by recognizing that workplace demands, including responsibility, function as stressors with complex effects on employee outcomes. This framework emerged from observations that traditional stress models failed to explain why certain workplace demands showed paradoxical relationships with employee outcomes—some demands being simultaneously associated with positive indicators such as job satisfaction and negative indicators such as strain (Crawford et al., 2010; Lepine et al., 2005). While earlier stress theories mostly characterized job demands as detrimental factors that increase work-related strain (Demerouti et al., 2001; Karasek, 1979), empirical findings revealed considerable ambiguity, with some demands showing positive, negative, or no relationships with well-being indicators (Hakanen et al., 2008; Llorens et al., 2007; Mauno et al., 2007).

To resolve this theoretical ambiguity, Cavanaugh et al. (2000) proposed distinguishing between two fundamentally different types of stressors based on how they are appraised by employees – challenge stressors and hindrance stressors. Challenge stressors are work demands that, while creating stress, are perceived as opportunities to learn, achieve, and demonstrate competence. These stressors are viewed as surmountable obstacles that, when overcome, lead to personal growth and a sense of accomplishment. Common challenge stressors include time pressure, workload, job complexity, and high levels of responsibility (Podsakoff et al., 2007). In contrast, hindrance stressors are work demands perceived as unnecessary barriers that impede progress toward goals and offer no opportunity for growth or gain. These stressors are seen as obstacles that impede performance and personal development. Typical hindrance stressors include role ambiguity, organizational politics, bureaucratic red tape, job insecurity, and inadequate resources (Podsakoff et al., 2007).

Extensive empirical research has validated this distinction and revealed differential relationships with employee outcomes. Meta-analytic evidence indicates that challenge stressors maintain positive relationships with motivational outcomes including job satisfaction, organizational commitment, and work engagement, while hindrance stressors consistently show negative relationships with these same outcomes (Crawford et al., 2010; LePine et al., 2005; Podsakoff et al., 2007). However, the relationships with strain-related outcomes reveal greater complexity. Both challenge and hindrance stressors demonstrate positive associations with indicators of strain such as anxiety, emotional exhaustion, and burnout (Boswell et al., 2004; Lepine et al., 2005; Mazzola & Disselhorst, 2019). This pattern

suggests that while challenge stressors may enhance motivation through their association with achievement opportunities, they nevertheless consume psychological and physiological resources, resulting in increased strain (Mazzola & Disselhorst, 2019).

Within this framework, responsibility consistently emerges as a prototypical challenge stressor across empirical investigations (Boswell et al., 2004; Cavanaugh et al., 2000; Lepine et al., 2005), and should thus show positive associations with both motivation and strain. However, recent research has shown that the classification of stressors may not be as black-and-white as the Challenge-Hindrance Stressor Model suggests. The relationship between stressors and outcomes is seemingly more complex than initially theorized, with studies showing that identical stressors can be appraised as challenge as well as hindrance stressors, depending on context and within-person fluctuations (Horan et al., 2020; Searle & Auton, 2015). This indicates that the connection between stressors and outcomes could be moderated and mediated by further factors, and that characterisation of a stressor such as responsibility as either challenge or hindrance could show considerable variation.

Linking Responsibility and Workplace Procrastination through Direct and Indirect Pathways

The theoretical frameworks outlined above can provide relevant insight into how responsibility might influence procrastination in workplace contexts by focusing on both direct effects and indirect pathways through cognitive appraisal processes. The Job Characteristics Model by Hackman and Oldham (1976) suggests that responsibility enhances intrinsic motivation, work quality and work satisfaction, which could thus reduce procrastination tendencies. Employees who feel personally accountable for outcomes should experience greater internal pressure to initiate and complete tasks in a timely manner, as delays directly reflect on their personal competence and reliability. The self-reinforcing motivational cycle described by Hackman and Lawler (1971) implies that employees with more responsibility would actively avoid procrastination to maintain positive self-evaluations and prevent the dissatisfaction associated with poor outcomes.

However, the Challenge-Hindrance Stressor Model (Cavanaugh et al., 2000) introduces important complexity to this relationship. The recognition that responsibility often functions as a challenge stressor—simultaneously enhancing motivation while increasing strain—suggests multiple pathways through which it might influence procrastination. From a self-regulatory perspective, increased responsibility may amplify the perceived importance and consequences of task performance, potentially triggering competing mechanisms. Enhanced outcome salience could reduce the temporal discounting effects described by

Temporal Motivation Theory (Steel & König, 2006), making future consequences feel more proximate and thus decreasing procrastination. Alternatively, heightened performance pressure might activate self-protective mechanisms such as self-handicapping, where procrastination serves to protect self-esteem by providing external attributions for potential failure (Martin et al., 2003). Additionally, the more recently discovered ambivalence of the categorization of stressors such as responsibility into challenge or hindrance stressors further muddles the relationship with procrastination. If responsibility contributes to more hindrance-appraisal for an individual, it may lead to more procrastination, while increased challenge-appraisal could lead to less procrastination.

Given the theoretical arguments for both positive and negative pathways linking responsibility to procrastination, combined with the limited empirical research directly examining this relationship, an exploratory approach is warranted. The complex interplay between motivational enhancement and stress-induced strain (Boswell et al., 2004; Lepine et al., 2005; Mazzola & Disselhorst, 2019) and the measurement challenges surrounding responsibility (Bajorski, 2022; Schlenker et al., 1994) suggest that responsibility will significantly influence procrastination behaviors, though the direction and magnitude of this relationship remains unclear. This reasoning leads to my first hypothesis:

H1: Responsibility has a relationship with procrastination.

Cognitive Appraisal as a Mediating Mechanism

While the direct relationship between responsibility and procrastination remains theoretically ambiguous, advances in stress research suggest that cognitive appraisal processes may play a crucial mediating role in determining how workplace demands influence behavioral outcomes. The transactional theory of stress by Lazarus and Folkman (1984) established that individuals' responses to environmental demands depend not on the objective characteristics of those demands but rather on their subjective evaluation of what the demands represent and whether they possess adequate resources to cope. As mentioned earlier, recent research has demonstrated that workplace stressors, including responsibility, can be appraised as challenge or hindrance stressor both within individuals and across different situations (Horan et al., 2020; Searle & Auton, 2015; Webster et al., 2011). This within-person variability in appraisal suggests that the overall perception of work demands can shift from day to day depending on contextual factors and individual states.

When increased responsibility contributes to an overall challenge appraisal of work, it should activate psychological processes that reduce procrastination tendencies. The Appraisals, Attributions, Adaptation (AAA) model of job stress (Mackey & Perrewé, 2014)

provides a theoretical framework for a more nuanced understanding of how challenge appraisals can influence behavioral outcomes, based on the transactional theory of stress (Lazarus & Folkman, 1984) as well as self-regulation theories (Muraven & Baumeister, 2000). The model postulate that when employees encounter organizational stressors (categorized as challenge or hindrance stressors), they engage in a primary and secondary cognitive appraisal processes, similar to the transactional theory of stress (Lazarus & Folkman, 1984). Primary appraisal contains evaluations on whether the demand represents a threat, challenge, or is irrelevant to their well-being. Following primary appraisal, employees make attributions about the source and nature of the stressor, which subsequently lead to emotional responses (e.g., pride, guilt, shame, anger). These emotions, combined with an evaluation of personal and job resources form the basis of secondary appraisal, and lead to action tendencies and coping behaviors. Critically, self-regulation serves as a key mechanism that moderates the relationship between action tendencies and actual coping behaviors, helping individuals manage their behavioral responses even when experiencing strong emotions (Mackey & Perrewé, 2014). Similar to the Transactional Stress Model (Lazarus & Folkman, 1984), the AAA model incorporates a feedback loop, where employees learn and adapt from their stress experiences, potentially altering future appraisals and resource evaluations (Mackey & Perrewé, 2014). This loop implies that stress responses can have both negative (straining) and positive (training) effects, depending on factors such as self-regulation capacity and the effectiveness of coping strategies employed.

Responsibility occupies a unique position among workplace demands that may make it particularly influential in shaping overall work appraisal. As a prototypical challenge stressor (Boswell et al., 2004; Cavanaugh et al., 2000; Lepine et al., 2005) responsibility inherently contains elements that can be perceived as either opportunities or threats. The Job Characteristics Model identifies responsibility as a critical psychological state that fundamentally shapes how employees experience their work (Hackman & Oldham, 1975), suggesting a central role in the perception of workplace outcomes. The salience of responsibility in shaping work experience is further supported by findings that challenge stressors like responsibility can be appraised differently even by the same individual across different situations (Searle & Auton, 2015; Webster et al., 2011). Furthermore, research has demonstrated that responsibility shows significant dual effects, simultaneously enhancing motivation while increasing strain (Boswell et al., 2004; Lepine et al., 2005; Mazzola & Disselhorst, 2019). This dual nature implies that fluctuations in daily responsibility levels may significantly influence the overall balance of how work is experienced. On days with

higher responsibility, employees face increased accountability for outcomes, which could either energize through the prospect of achievement or overwhelm through performance pressure, suggesting that daily variations in responsibility levels may serve as a key driver of whether the overall work environment is perceived as challenging or hindering.

Regarding these perceptions of the work environment, when it is appraised as challenging, it activates psychological processes that may reduce procrastination tendencies. According to the AAA model, challenge appraisals trigger positive emotions such as pride, excitement and surprise, which in turn activate approach-oriented action tendencies. These action tendencies manifest as problem-focused coping strategies characterized by active engagement with work demands, seeking social support and increased emotional regulation (Mackey & Perrewé, 2014). Such active coping seems to stand in direct opposition to procrastination, which theoretically represents a form of avoidance-oriented coping.

Research on challenge stressors consistently demonstrates their association with enhanced motivation and engagement (Crawford et al., 2010; Lepine et al., 2005). On days when employees experience their work as challenging—potentially influenced by increased responsibility—they experience positive emotions and engage in active, problem-solving styles of coping (Lepine et al., 2005). Research also demonstrates that challenge stressors are positively associated with performance, motivation, and work engagement (Crawford et al., 2010; Lepine et al., 2005), suggesting an “energizing” effect that should counteract the self-regulatory failures underlying procrastination. Furthermore, challenge appraisal may enhance the perceived value of task completion while reducing the psychological distance to rewards, two key factors in Temporal Motivation Theory's explanation of procrastination (Steel & König, 2006). According to the AAA model, challenge appraisals activate approach-oriented action tendencies, promoting amongst others proactive engagement with work tasks (Mackey & Perrewé, 2014). Based on these theory-based arguments, it can be postulated that increased responsibility, by contributing to an overall challenge appraisal of daily work, should indirectly reduce procrastination. This leads to my second hypothesis:

H2a: Responsibility has a negative indirect relationship with procrastination via increased challenge appraisal.

Conversely, when increased responsibility contributes to an overall hindrance appraisal of work, it initiates a different set of psychological processes that may increase procrastination tendencies. According to the AAA model (Mackey & Perrewé, 2014), hindrance appraisals trigger negative emotions such as guilt, shame, anger and anxiety. These emotions may lead to maladaptive coping behaviors. Unlike the approach-oriented strategies

associated with challenge appraisal, hindrance appraisal leads to maladaptive emotion-focused coping following secondary appraisal, such as aggression, withdrawal and increased stress reactivity—with especially withdrawal aligning closely with procrastination behaviors.

The strain effects of hindrance appraisal create conditions particularly conducive to procrastination. On days when employees perceive their work as hindering—potentially due to increased responsibility levels—they may experience what Bandura (1997) defined as outcome futility, a belief that their efforts will not lead to meaningful results. This perception undermines the motivational foundation necessary for task initiation and persistence.

Research on hindrance stressors consistently shows their association with reduced motivation, decreased performance, and increased withdrawal behaviors (Boswell et al., 2004; Crawford et al., 2010; Podsakoff et al., 2007). The negative emotions generated by hindrance appraisal may consume cognitive resources that might otherwise support self-regulation, leaving individuals more vulnerable to the immediate temptations and distractions that characterize procrastination. Moreover, in accordance with Temporal Motivation Theory (Steel & König, 2006), hindrance appraisal may exacerbate the temporal discounting processes central to procrastination by making the costs of engagement feel immediate and salient while potential benefits seem distant or unlikely. These theoretical mechanisms suggest that increased responsibility, by contributing to an overall hindrance appraisal of daily work, should indirectly increase procrastination through negative emotions, resource depletion, and avoidance-oriented coping. This reasoning leads to my third hypothesis:

H2b: Responsibility has a positive indirect relationship with procrastination via increased hindrance appraisal.

Together, these hypotheses propose a dual-pathway model wherein responsibility influences procrastination through its impact on how work is appraised on a daily basis. This model recognizes that responsibility, as a significant workplace demand, contributes to the overall cognitive appraisal of work, which in turn influences procrastination behavior. The challenge appraisal pathway represents the motivational route through which responsibility, by contributing to a perception of work as challenging, indirectly reduces procrastination. The hindrance appraisal pathway represents the strain route through which responsibility, by contributing to a perception of work as hindering, indirectly increases procrastination. This dual-pathway conceptualization aligns with contemporary understanding of workplace stress as a dynamic, subjective phenomenon and helps reconcile the apparent contradiction between theories suggesting responsibility should enhance performance and those recognizing its potential for negative effects. The simultaneous operation of these pathways suggests that the

relationship of responsibility with procrastination will depend on whether increased responsibility leads employees to appraise their daily work as more challenging or more hindering, setting the stage for examining the moderating role of individual differences such as self-efficacy in shaping these critical appraisal processes.

Self-Efficacy and its Moderating Role in Stress Appraisal

While the dual-pathway model outlined above demonstrates how responsibility can influence procrastination through competing appraisal mechanisms, a critical question remains: What determines whether an individual appraises responsibility as a challenge or hindrance? The subjective nature of stress appraisal suggests that individual differences in psychological resources may play a crucial role in shaping these cognitive evaluations. Among these individual resources, self-efficacy emerges as a particularly relevant factor that may influence how workplace demands are perceived and managed.

Self-efficacy, defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3), is one of four core constructs in Albert Bandura's (1986) Social Cognitive Theory. Unlike general confidence or self-esteem, self-efficacy is domain-specific and task-oriented, reflecting individuals' judgments about their ability to successfully perform particular behaviors in specific contexts (Bandura, 2001). According to Social Cognitive Theory, these efficacy beliefs develop through four primary sources: successful past experiences, where mastery experiences enhance confidence; vicarious learning, through observing others and the outcomes of their behaviour; verbal persuasion, including encouragement and feedback; and physiological and psychological states, where emotional and physical reactions inform capability judgments (Bandura, 1997). Through these developmental pathways, self-efficacy has the potential to shape motivation, emotional responses, thought patterns, and behavioral choices (Bandura, 2001). This potential manifests in selective task engagement, meaning individuals gravitate toward activities they believe fall within their capabilities while avoiding tasks perceived to exceed their competence. In an organizational setting, professional self-efficacy refers to employees' beliefs about their capability to meet job demands and accomplish work-related tasks effectively (Rigotti et al., 2008).

According to Stajkovic and Luthans (2003), self-efficacy in organizational contexts has three central dimensions, which were introduced by Bandura (1977). First, the magnitude of self-efficacy refers to the level of task difficulty and complexity that an employee believes he or she can accomplish. Levels of task difficulty represent different degrees of challenge for successful task performance, with employees varying in whether they believe they can

execute low, moderate, or highly complex tasks. Second, the strength of self-efficacy indicates how certain an employee is about performing at the indicated level of task difficulty and complexity. The higher the strength of self-efficacy, the greater the likelihood of successful performance, as strong efficacy beliefs lead to perseverance in coping efforts despite disconfirming experiences, while weak beliefs are easily questioned in the face of difficulty. Third, self-efficacy may vary in generality, with some experiences creating efficacy beliefs specific to a particular task while other experiences influence more generalizable self-efficacy beliefs potentially encompassing various tasks and situations. With these dimensions, Bandura suggests that self-efficacy is a state-like variable (Bandura, 1986). It is to be differentiated from general self-efficacy, which has been categorized as a trait-based variant of self-efficacy (Sherer et al., 1982).

The influence of self-efficacy extends beyond mere belief to shape motivation, affect, cognition, and behavior (Bandura, 2001; Ventura et al., 2015). Individuals with high self-efficacy often set more challenging goals, invest greater effort, persist longer in the face of difficulties, and recover more quickly from setbacks (Bandura, 1977). Conversely, those with low self-efficacy tend to avoid challenging tasks, invest minimal effort, and are more likely to give up when confronted with obstacles. This self-regulatory function of self-efficacy makes it particularly relevant for understanding how employees deal with workplace demands.

Furthermore, research has established self-efficacy as a fundamental moderator in stress models, demonstrating its protective role against numerous adverse workplace outcomes. High self-efficacy helps mitigate stress-related consequences including job dissatisfaction, physical symptoms, turnover intentions, low organizational commitment (Jex & Bliese, 1999), anxiety and depression (Beas & Salanova, 2006), and burnout (Salanova et al., 2000, 2002). Additionally, self-efficacy can act as a mediator in the relationship between workplace stressors and outcomes, such as between general stress and work engagement (Cabrera-Aguilar et al., 2023). This broad protective influence underscores self-efficacy's central role in employee well-being and organizational effectiveness, making it a crucial factor to consider when examining how workplace demands such as responsibility are perceived and managed.

The role of self-efficacy in shaping stress appraisal processes has been extensively documented in organizational research. According to Social Cognitive Theory, self-efficacy functions as a critical personal resource that influences both how workplace demands are perceived and how individuals cope with these demands. Research has consistently shown that self-efficacy affects both the primary and secondary appraisal of stressors (Salanova et

al., 2006). Individuals with high self-efficacy demonstrate a distinctive pattern of stress appraisal characterized by what Bandura defined as a "challenge orientation." (Bandura, 1999, 2001). These individuals tend to interpret demands and problems as challenges to be mastered rather than threats to be avoided or hindrances that are subjectively uncontrollable. This cognitive framing occurs because high self-efficacy enhances perceived control over the workplace, leading to a tendency to view demanding situations as opportunities for growth and skill development (Llorens et al., 2007). The belief in one's capabilities creates a positive expectancy that effort will lead to successful outcomes, making the investment of resources seem worthwhile and salient.

Empirical research has provided robust support for these theoretical propositions. Ventura et al. (2015) found that workers with high professional self-efficacy were significantly more likely to perceive job demands as challenges and less likely to perceive them as hindrances. Their research demonstrated that high self-efficacy creates a motivational pathway leading to challenge appraisal and greater engagement, while low self-efficacy triggers an erosion process resulting in increased hindrance perceptions and subsequent burnout. This evidence implies that self-efficacy acts as a cognitive "lens" through which identical workplace demands are interpreted in different ways depending on individuals' belief in their capabilities (Ventura et al., 2015). This relationship between self-efficacy and challenge-hindrance appraisal aligns with research by Jerusalem and Schwarzer (1992), who demonstrated that individuals with different levels of self-efficacy show distinct appraisal patterns over time. Their research found that individuals with high self-efficacy maintained higher levels of challenge appraisal throughout task performance, while those with low self-efficacy showed increasing threat and hindrance appraisals as tasks progressed. This adds a temporal dimension which highlights that while self-efficacy represents a relatively stable individual characteristic, its influence on appraisal can vary across situations and within situations over time.

The mechanisms through which self-efficacy shapes appraisal are multifaceted. First, self-efficacy influences attentional processes, with highly efficacious individuals focusing more on opportunities for success rather than potential obstacles (Bandura, 1997). Second, self-efficacy affects the cognitive construction of situations, leading individuals to perceive the same objective demands differently based on their capability beliefs (Ventura et al., 2015). Third, self-efficacy influences emotional responses to demands, with higher efficacy associated with positive anticipatory emotions that can facilitate challenge appraisal (Salanova et al., 2011).

Research has also revealed that the protective effects of self-efficacy extend beyond appraisal to influence coping strategies and outcomes. High self-efficacy is associated with problem-focused coping, active engagement with stressors, and seeking social support when needed (Salanova et al., 2006). Self-efficacy can also lead to more optimistic thoughts, which consecutively are associated with satisfaction, dedication, persistence and engagement (Llorens et al., 2007; Salanova et al., 2011; Vera et al., 2012). These adaptive coping strategies and positive effects have the potential to reinforce challenge appraisals and create positive spirals of motivation and performance. Conversely, low self-efficacy is linked to emotion-focused coping, avoidance behaviors, and pessimistic thoughts about performance, reinforcing hindrance appraisals and potentially leading to negative spirals of stress and withdrawal, even associated with depression and anxiety (Schwarzer, 1999).

The theoretical and empirical evidence presented above suggests that self-efficacy should play a crucial moderating role in how responsibility is appraised when viewed as a stressor. This moderation should occur due to a evaluative process wherein individuals' beliefs about their capabilities shape how changes in workplace demands affect their general perception of work (Bandura, 1997). When employees experience varying levels of responsibility across workdays, these fluctuations may influence their overall appraisal of work as either challenging or hindering—a relationship that should depend critically on their self-efficacy beliefs.

Specifically, for employees with high self-efficacy, increased daily responsibility should enhance their tendency to appraise their overall work as challenging. When these employees experience days with greater responsibility, their belief in their capabilities allows them to integrate this demand into a positive overall assessment of their work situation. The enhanced control perception that accompanies high self-efficacy (Lazarus & Folkman, 1984; Smith & Kirby, 2011) enables them to view responsibility-laden days as opportunities for professional growth and skill demonstration. The AAA model's prediction that challenge appraisals trigger approach-oriented action tendencies (Mackey & Perrewé, 2014) implies that for these individuals, days with higher responsibility activate positive motivational processes that affect their entire work experience. Their ability to "organize and execute courses of action" (Bandura, 1977, p. 3) means that responsibility-heavy days are experienced as engaging rather than overwhelming. This suggests that when daily responsibility increases, highly efficacious employees may incorporate this into a broader challenge-oriented appraisal of their workday.

Building on this theoretical foundation, I predict that self-efficacy will strengthen the relationship between daily responsibility levels and challenge appraisal of work. On days when responsibility is higher, employees with strong self-efficacy beliefs should be particularly likely to appraise their overall work as challenging and growth-promoting. The confidence derived from high self-efficacy transforms increased responsibility into a catalyst for perceiving the entire workday as an opportunity for achievement. This leads to the following hypothesis:

H3a: Self-efficacy moderates the positive relationship between responsibility and challenge appraisal. When self-efficacy is higher, the positive relationship between responsibility and challenge appraisal will be stronger.

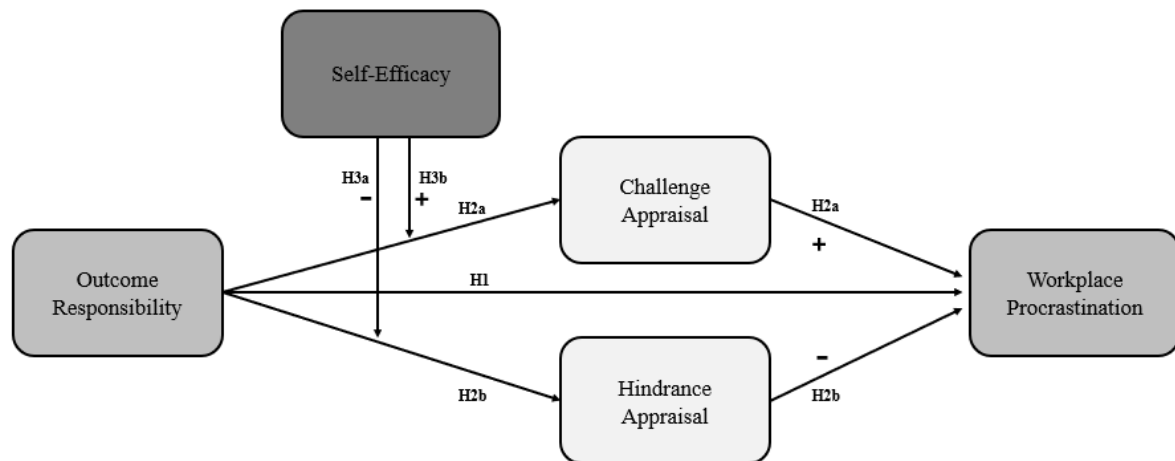
The relationship between daily responsibility and work appraisal unfolds differently for employees with low self-efficacy. These individuals' doubt about their capabilities (Bandura, 1997) creates a vulnerability through which increased responsibility could negatively affect their perception of the entire work environment. On days when responsibility is elevated, employees with low self-efficacy may lack the confidence to integrate these demands constructively, as the accountability inherent in responsibility amplifies their existing concerns about their ability to perform successfully (Schwarzer, 1999). Jerusalem and Schwarzer (1992) found that individuals with low self-efficacy show increasing threat and hindrance appraisals over time when faced with demands, while Ventura et al. (2015) identified an erosion process where low self-efficacy leads to perceiving more demands as hindrances. This suggests that on high-responsibility days, these employees experience a spillover effect where the burden of accountability creates a negative lens through which the entire workday is viewed. While defensive strategies (Martin et al., 2003) and organizational support systems (Salanova et al., 2006) may provide some buffering, the fundamental pattern should persist: employees with lower self-efficacy should be more likely to appraise their work as hindering on days when they experience greater responsibility.

Given this theoretical reasoning, I expect that lower self-efficacy will amplify the relationship between daily responsibility and hindrance appraisal of work. On days characterized by higher responsibility, employees with weaker efficacy beliefs should be particularly prone to viewing their overall work as obstructive and stressful. This leads to the hypothesis:

H3b: Self-efficacy moderates the positive relationship between responsibility and hindrance appraisal. When self-efficacy is lower, the positive relationship between responsibility and hindrance appraisal will be stronger.

These hypotheses complete my theoretical model by identifying self-efficacy as a critical boundary condition that determines how daily variations in responsibility influence overall work appraisal. This moderated mediation framework recognizes that workplace demands do not exist in isolation but rather contribute to employees' holistic evaluation of their work experience. The complete theoretical model for this thesis can be seen in Figure 2.

Figure 1. Theoretical Model for this Thesis



Note. Relationships are day-level and within-person.

Method

Research Design

The study was pre-registered on the Open Science Framework (OSF) prior to data collection and conducted as planned (doi.org/10.17605/OSF.IO/pcj7g). There were no deviations from the pre-registration.

Based on the emphasis on within-person processes linking outcome responsibility, self-efficacy and cognitive appraisal to workplace procrastination, a diary methodology was implemented with working employees as the target population. Diary studies are particularly well-suited for research in the context of the workplace as they enable the examination of short-term, fluctuating experiences and behaviors within employees' natural work environments (Fisher & To, 2012; Ohly et al., 2010). This approach captures the dynamic nature of workplace phenomena such as stress appraisal, motivation, and behavioral responses as they occur on a daily or momentary basis, thus providing real-time insights that may offer a more nuanced understanding than traditional cross-sectional surveys (Fisher & To, 2012; Ohly et al., 2010). By monitoring experiences in the moment, diary studies can

help to mitigate biases associated with retrospective self-reports, such as memory errors and reconstruction biases, leading to more reliable insights into individual behaviors and attitudes (Fisher & To, 2012). Furthermore, diary studies facilitate the examination of within-person processes over time, potentially revealing nuanced relationships and factors impacting employee performance and engagement while helping to differentiate between individual differences and situational effects (Fisher & To, 2012; Ohly et al., 2010).

The diary methodology is particularly relevant for the current thesis' focus on procrastination, responsibility, and stress appraisal, as there are indications that these constructs show day-to-day variability within individuals (Kühnel et al., 2016; Prem et al., 2018). Furthermore, the insights gained from diary studies could inform more precise, context-relevant interventions by identifying how and when responsibility either promotes or hinders effective work behaviors.

The diary study was conducted as an online questionnaire via SoSciSurvey over the duration of two work weeks, i.e. 10 working days. To increase the chances of attaining a large enough sample size, the study was conceptualized as a joint effort with 9 other students working on their master's theses, each testing overlapping concepts with different relationships and designed in a way so the same scales could be used (Ballweber, 2025; Jandrasits, 2025; Kraft, in prep.; Rengshausen, in prep.; Schmid, 2025; Schmied, 2025; Sebzda, in prep.; Stefanovic, in prep.; Werner, 2025). All data relevant for the theses was collected via the same questionnaires. Participants were required to fill out a baseline questionnaire containing demographic information as well as trait constructs, and then received two questionnaires daily for the course of the study.

Procedure

When registering for the study, participants were presented information on a rough outline of the topic, participation (including contact information and withdrawal options), handling of data, and anonymization, before providing their informed consent. This was followed by a baseline questionnaire containing items regarding sociodemographic information (age, gender, location, education), occupation-related information (occupation, occupation sector, self-employment, occupational experience in years, leadership responsibility, working hours per week, work location), and four trait-related constructs which were not relevant for this thesis as they concerned the subjects of the other master theses. The diary part of the study commenced on the Monday following the completion of the baseline questionnaire, with participants receiving two questionnaires daily Mondays through Fridays, which were to be filled out around lunch break and at the end of the

workday. The questionnaires were sent out at 10:00 and 14:00 respectively, to account for personal variation in daily schedule. For the purpose of this thesis, responsibility, self-efficacy and cognitive appraisal were measured with the first questionnaire of the day around noon, while procrastination was measured with the second questionnaire at the end of the workday. The diary part of the study concluded after two work weeks (10 working days). The baseline questionnaire was estimated to take 10-15 minutes to complete, while the two daily questionnaires ranged from 10-15 minutes each. Registration for participants began on January 24th, 2025, and ended on February 28th, 2025. Data collection concluded two full working weeks after the last possible registration date, March 14th, 2025. The following paragraph describes the procedure in more detail. All questionnaires can be found in the appendix section “Original Study Materials (German)”.

Participants

A target sample size of 200-250 participants was determined for this study based on power analyses for multilevel models conducted by Arend and Schäfer (2019). According to Arend and Schäfer (2019, Table 5) and assuming a relatively high intraclass correlation coefficient ($ICC = .50$), a sample of 200 participants providing data over 10 workdays is expected to yield a minimal detectable effect size (MDES) of .09. Consequently, this design should provide sufficient statistical power (80%) to detect small effects at the daily level. To ensure adequate statistical power while accounting for realistic response patterns, participants were required to complete a minimum of three full days of diary entries. With 200 participants completing at least three days, the study would still maintain the ability to detect a minimal effect size of .13 (Arend & Schäfer, 2019, Table 5).

The sample consisted of German-speaking employees with regular employment. Participants who completed fewer than three complete days of the survey were excluded from analyses. Additional inclusion criteria required participants to be at least 18 years of age at registration, available throughout the two-week data collection period without planned extended absences, and employed for a minimum of 20 hours per week in positions with regular daytime schedules (excluding shift work). Recruitment occurred through private, professional, and academic environments of students at the University of Vienna. Participants were incentivized with the possibility of winning one of three 100 Euro Amazon gift cards, provided they had filled out at least three full sets of questionnaires.

The survey was completed (i.e., at least 3 full-day datasets provided) by 205 individuals, who provided a total of 1,404 out of 2,050 possible datasets (205 participants $\times$ 10 days). This indicates that participants filled out diary entries on average on 6.85 out of the

10 days and thus that 68.5% of possible datasets were achieved. In the final sample (67.8% female), the mean age was 35.30 years ($SD = 12.69$) with an age range spanning from 18 to 68 years. The majority of participants worked in Austria ($n = 164$, 80.0%), followed by Germany ($n = 38$, 18.5%), and other countries ($n = 3$, 1.5%). Educational background showed that slightly more than half of the participants held an academic degree ($n = 106$, 51.7%).

Regarding professional characteristics, the majority of participants were employed rather than self-employed ($n = 178$, 86.8%), 13 participants (6.3%) were partially self-employed and 14 participants (6.8%) were fully self-employed. Mean professional experience was 8.79 years ($SD = 11.10$). Most participants did not hold leadership positions ($n = 156$, 76.1%). The mean working time was 37.3 hours per week including overtime ($SD = 9.73$), with a low of 20 hours and a high of 70 working hours per week. Work arrangement patterns showed that more than half of the participants had access to home office options ($n = 115$, 56.1%), working on average 13.96 hours per week ($SD = 8.61$) from home, while 90 participants (43.9%) worked exclusively from traditional office locations.

Measures

Due to the established nature of diary studies in the field of organizational psychology, there are many well-validated scales to measure most of the constructs. To decrease participant's strain and potential drop-out rates by having to fill out long questionnaires multiple times, this study predominantly used abbreviated scales, as is common in most diary studies (Fisher & To, 2012; Ohly et al., 2010). All items were provided in German, adapted for diary use, and were rated on 5-point Likert-type scales (1 = *strongly disagree*; 5 = *strongly agree*). All items can be found in the appendix section "Original Study Materials (German)".

Responsibility was assessed during the workday. As responsibility is often operationalized in different ways, there aren't any well-validated scales to test the desired construct of outcome responsibility. To this extent, the planned study will use a hybrid of two adapted items from the Job Diagnostic Survey (JDS, Hackman & Oldham, 1975) as well as three items created by Bajorski (2022) in her master's thesis. This specific scale was selected as its focus is on outcome responsibility, aligning with the conceptualization used in my thesis. Bajorski's scale originally comprised seven items, using 4 items from the JDS (Hackman & Oldham, 1975) and 3 self-created items. A principal component analysis conducted by Bajorski showed satisfactory loadings, varying from .65 to .83 (Bajorski, 2022). A sample item is "Today, I feel responsible for the results of my work".

Self-efficacy was assessed during the workday using 3 items adapted from the short version of the Occupational Self-Efficacy Scale (Rigotti et al., 2008). A sample item is “Whatever comes my way in my job today, I can handle it”.

Challenge appraisal was measured during the workday using three items adapted from LePine et al. (2016). These items are based on descriptions of the stress appraisal process by Lazarus and Folkman (1984) as well as meta-analytic research by LePine and colleagues (2005). An example item is “Today, my job requirements will help me to learn a lot”.

Hindrance appraisal was measured during the workday using three items adapted from the same study by LePine et al. (2016). “Today, my job requirements will restrict my capabilities” is an example item for this scale.

Procrastination was assessed at the end of the workday using 6 items which were adapted from the procrastination scale (Tuckman, 1991) by Kühnel et al. (2016) to reduce the original 16 items of the procrastination scale to a more manageable 6 items and make the wording compatible for diary use. A sample item is “Today, I needlessly delayed finishing jobs, even when they were important”.

Data Analysis

Statistical analysis was done using RStudio and the corresponding programming language R (R Core Team, 2024). Data was first prepared by filtering out cases with missing values in the relevant variables. Mean values of the scales were formed from the individual items, and descriptive statistics were created. Given the diary study design with nested data structure (daily observations within persons), variables were centered to separate within-person and between-person variance. Specifically, person-mean centered variables were computed by subtracting each person's mean from their daily scores to capture day-to-day fluctuations, while grand-mean centered person means were created by subtracting the sample grand mean from individual person means to capture stable between-person differences.

This was followed by preliminary analyses to establish the psychometric properties of the measures. Since some scales were shortened and adapted for the diary study, multilevel confirmatory factor analyses were conducted to verify that the adapted scales measure distinct constructs at both the within-person and between-person levels. The hypothesized five-factor model (responsibility, self-efficacy, challenge appraisal, hindrance appraisal, and procrastination) was tested against an alternative single-factor model to establish discriminant validity. Additionally, reliability analyses using Cronbach's alpha were performed for all

scales at both the within-person and between-person levels to ensure adequate internal consistency. While both levels of analysis were examined to provide comprehensive psychometric evaluation, the within-person level properties were of primary importance for the subsequent hypothesis testing.

To test the first hypothesis (H1) regarding the basic relationship between responsibility and procrastination, correlation analyses were conducted at both the within-person and between-person levels. Although correlations at both levels were calculated to appropriately account for the nested data structure, the within-person correlations were of primary interest as they directly address the study's hypotheses about day-to-day fluctuations in these variables.

Due to the aforementioned nested data structure with day-level datasets, the mediation hypotheses (H2a and H2b) were tested using multilevel linear mixed models via the *lme4* package in R, followed by mediation analyses using the *mediation* package. The analyses followed the approach recommended for multilevel mediation, testing both within-person (Level 1) and between-person (Level 2) indirect effects (Ohly et al., 2010). However, the within-person effects were the focus of interpretation as they correspond to the theoretical predictions about how daily variations in responsibility influence procrastination through appraisal processes. First, the a-paths were examined by regressing the mediators (challenge appraisal and hindrance appraisal) on the predictor (responsibility) at both levels. Second, the b-paths were tested by regressing the outcome (procrastination) on both the predictor and mediators simultaneously. The indirect effects were then calculated and tested using quasi-Bayesian confidence intervals. All models included random intercepts to account for the clustering of observations within persons.

To test the moderation hypotheses (H3a and H3b), multilevel regression analyses with interaction terms were conducted at both the within-person and between-person levels. While both levels were examined to provide a comprehensive analysis, the within-person interactions were of primary theoretical interest as they test how day-to-day variations in self-efficacy moderate the relationship between daily responsibility and stress appraisal. When significant interactions were found, simple slopes analyses were performed to further analyze the nature of the moderation effects, examining the relationship between responsibility and appraisal at different levels of self-efficacy (one standard deviation above and below the mean).

All analyses were conducted using a significance level of $\alpha = .05$, and effect sizes were interpreted according to established conventions for multilevel modeling.

Results

Preliminary Analyses

Since some scales were shortened and adapted for the diary study, I conducted a confirmatory factor analysis (CFA) to examine the distinctness of the five diary-level constructs responsibility, self-efficacy, procrastination, challenge appraisal, and hindrance appraisal. Given the nested structure of the data (daily observations within persons), I employed a multilevel CFA using the lavaan package in R, specifying separate factor structures for both the within-person (Level 1) and between-person (Level 2) levels. I first specified the assumed model in which the items of all diary scales load on their respective constructs at both levels of analysis. This model achieved a good model fit, $\chi^2 = 1162.94$; $p < .001$; $df = 320$; Akaike Information Criterion (AIC) = 56,005.68; Comparative Fit Index (CFI) = .945; Tucker-Lewis Index (TLI) = .935; Root Mean Square Error of Approximation (RMSEA) = .043; Standardized Root Mean Square Residual (SRMR) within = .040; SRMR between = .061. The model fit indices indicated that all five constructs (responsibility, self-efficacy, challenge appraisal, hindrance appraisal, and procrastination) could be adequately distinguished from one another, with factor loadings ranging from .44 to .92 at the within-person level and .72 to 1 at the between-person level. While the significant chi-square test indicates some degree of misfit, this is common in multilevel models with large samples and does not present an issue (Peugh & Feldon, 2020). In a further step, the model was also compared with an alternative model in which all items load on a common factor at both levels of analysis. As expected, this model showed a significantly worse model fit, $\chi^2 = 10,639.30$; $p < .001$; $df = 340$; AIC = 65,442.035; CFI = .333; TLI = .255; RMSEA = .147, SRMR within = .190; SRMR between = .299; $\Delta\chi^2 = 9,476.4$; $\Delta df = 20$, $p < .001$. Overall, the results of the multilevel confirmatory factor analyses suggest that the adapted scales measure different constructs.

The assumptions for multilevel modeling were checked for all analyses, including linearity, normality of residuals, and homoscedasticity. Model fit was evaluated using likelihood ratio tests comparing nested models, and the significance of fixed effects was assessed using *t*-tests with degrees of freedom correction.

Reliability analyses revealed acceptable to good internal consistency for all scales at a within-person level. At the between-person level, reliability was excellent across all scales. See Table 1 for Cronbach's alphas.

Descriptive statistics are presented in Table 1. Participants reported moderate levels of responsibility, high self-efficacy, moderate challenge appraisal, low hindrance appraisal, and

low procrastination on average. The intraclass correlations (ICCs) indicated that approximately half of the variance in each variable was attributable to between-person differences and half to within-person fluctuations.

Hypotheses Testing

To test Hypothesis 1, which predicted that responsibility has a relationship with procrastination, correlation analyses were conducted at both within-person and between-person levels. Correlations can be seen in Table 1. At the within-person level, the correlation between responsibility and procrastination was not significant ($r = -.04, p = .232$). Therefore, Hypothesis 1 was rejected at the within-person level.

For Hypothesis 2a, which proposed a negative indirect relationship between responsibility and procrastination through increased challenge appraisal, multilevel mediation analysis was performed. The results are presented in Table 2. The a-path from responsibility to challenge appraisal was significant ($B = 0.34, p < .001$), indicating that higher daily responsibility was associated with higher challenge appraisal. However, the b-path from challenge appraisal to procrastination was not significant ($B = 0.02, p = .338$). The indirect effect was calculated as 0.007 with a 95% confidence interval of $[-0.007, 0.022]$ and was not significant ($p = .330$). Therefore, Hypothesis 2a was rejected.

To test Hypothesis 2b, which predicted that responsibility has a positive indirect relationship with procrastination via increased hindrance appraisal, multilevel mediation analysis was conducted. For results see Table 2. The a-path from responsibility to hindrance appraisal was significant ($B = 0.08, p = .010$). The b-path from hindrance appraisal to procrastination was also significant ($B = 0.05, p = .035$). The indirect effect was significant ($B = 0.004, 95\% \text{ CI } [0.00008, 0.009], p = .048$). Therefore, Hypothesis 2b is supported. However, the direct effect was slightly negative and not significant ($B = -0.04, 95\% \text{ CI } [-0.09, 0.02], p = .126$). The opposite directions of indirect and direct effect lead to the total effect not being significant ($-0.036, 95\% \text{ CI } [-0.09, 0.02], p = .156$). This is not uncommon for mediations, and as this study used quasi-bayesian confidence intervals with 1,000 simulations, the indirect effect can be interpreted nevertheless (Shrout & Bolger, 2002).

Table 1. Means, Standard Deviations, Cronbach's Alphas, Intraclass Correlations and Bivariate Correlations

	M^a	SD^a	SD^b	α^a	α^b	ICC ^c	1	2	3	4	5
1 Responsibility	3.85	0.69	0.64	.91	.84	.54	-	.05	.29***	.08**	-.04
2 Self-Efficacy	4.06	0.58	0.51	.88	.77	.57	.31***	-	.02	-.09**	-.10***
3 Challenge Appraisal	2.59	0.85	0.75	.93	.86	.56	.25**	.11	-	-.01	.01
4 Hindrance Appraisal	1.77	0.78	0.64	.94	.86	.60	-.07	-.27**	-.27**	-	.05
5 Procrastination	1.56	0.56	0.54	.85	.85	.52	-.19*	.48***	-.02	.45***	-

Notes. Correlations at the between-person level are reported below the diagonal ($N = 197$); correlations at the within-person level are reported above the diagonal ($n = 1302$);

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

^a Means, standard deviations, and Cronbach's alphas at the between-level.

^b Standard deviations and Cronbach's alphas at the within-level.

^c ICC = Intraclass correlation = Variance at between-level / (Variance at within-level + Variance at between-level)

Table 2. Results of Multilevel Analyses Regarding Responsibility, Challenge/Hindrance-Appraisal and Procrastination

	Challenge Appraisal			Hindrance Appraisal			Procrastination		
	Model 1			Model 2			Model 3		
	Est.	SE	95% CI	Est	SE	95% CI	Est.	SE	95% CI
Level 2 (between-person)									
Constant	2.598	0.061	[2.474, 2.705]	1.767	0.058	[1.651, 1.882]	1.554	0.041	[1.474, 1.643]
Person mean Responsibility	0.310	0.083	[0.142, 0.481]	-0.052	0.078	[-0.206, 0.090]	-0.138	0.056	[-0.255, -0.025]
Person mean Challenge Appraisal									
Person mean Hindrance Appraisal									
Level 1 (within-person)									
Responsibility	0.345	0.033	[0.282, 0.407]	0.075	0.029	[0.022, 0.125]	-0.029	0.024	[-0.079, 0.022]
Challenge Appraisal									
Hindrance Appraisal									
Variance components									
Level 2 variance of constant	0.684	0.827		0.612	0.782		0.306	0.551	
Level 1 residual variance	0.514	0.717		0.403	0.635		0.287	0.536	
Deviance (<i>df</i>)	3508.4	(1398)		3192.8	(1398)		2650.4	(1398)	
Δ Deviance (<i>df</i>)	120.6***	(2)		7.13*	(2)		7.3*	(2)	
AIC	3518.4			3202.8			2660.4		
BIC	3544.6			3229.0			2686.6		

Note. Table contains unstandardized coefficients; CI = Bootstrap confidence interval; * $p < .05$, ** $p < .01$, *** $p < .001$.

To examine Hypothesis 3a, which predicted that self-efficacy moderates the positive relationship between responsibility and challenge appraisal (with stronger relationships at higher self-efficacy), multilevel regression analysis with interaction terms was conducted. The results are presented in Table 3. First, a baseline model was estimated including person-mean centered daily responsibility and self-efficacy, along with their respective person-level means. Daily responsibility significantly predicted daily challenge appraisal ($t(1396) = 10.58$, $p < .001$), while daily self-efficacy did not ($t(1396) = -0.10$, $p = .920$). When the interaction term between daily responsibility and daily self-efficacy was added, it was statistically significant ($t(1395) = 2.24$, $p = .025$). The interaction significantly improved model fit ($\Delta\chi^2(1) = 5.02$, $p = .025$). Simple slopes analysis revealed that when self-efficacy was low (one standard deviation below the mean), the relationship between responsibility and challenge appraisal was positive and significant ($B = 0.28$, $t = 6.13$, 95% CI [0.19, 0.36]). When self-efficacy was high (one standard deviation above the mean), the relationship was stronger and significant ($B = 0.41$, $t = 9.40$, 95% CI [0.32, 0.50]). Figure 2 shows a visualization of the interaction in an interaction graph. Therefore, Hypothesis 3a is supported.

Figure 2. Interaction plot for Responsibility and Self-Efficacy on Challenge Appraisal

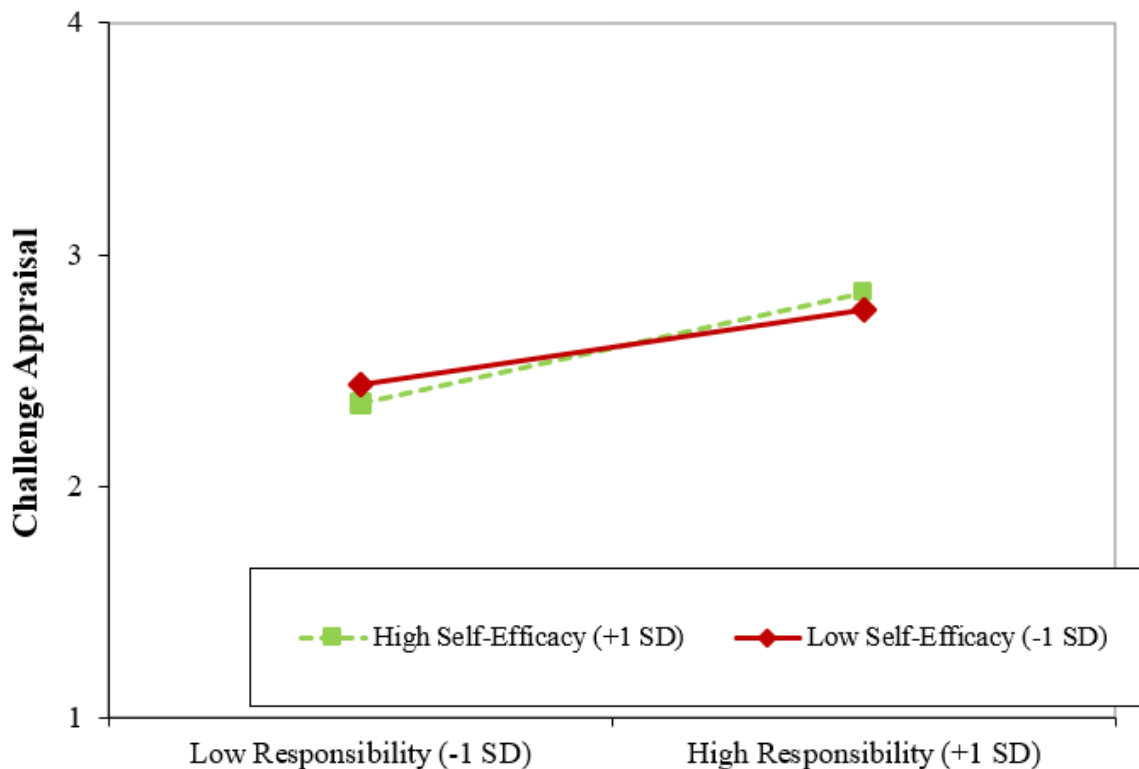


Table 3. Results from Multilevel Analyses Regarding Challenge Appraisal

	Challenge Appraisal					
	Model 1			Model 2		
	Est.	SE	95% CI	Est.	SE	95% CI
Level 2 (between-person)						
Constant	2.599	0.061	[2.473, 2.721]	2.598	0.061	[2.478, 2.721]
Person mean Responsibility	0.301	0.086	[0.135, 0.473]	0.302	0.086	[0.129, 0.492]
Person mean Self-Efficacy	0.044	0.103	[-0.147, 0.255]	0.047	0.103	[-0.152, 0.243]
Level 1 (within-person)						
Responsibility	0.345	0.033	[0.283, 0.406]	0.343	0.033	[0.275, 0.406]
Self-Efficacy	-0.004	0.041	[-0.082, 0.077]	-0.002	0.041	[-0.086, 0.080]
Responsibility x Self-Efficacy				0.144	0.064	[0.015, 0.264]
Variance components						
Level 2 Variance of constant	0.684	0.827		0.685	0.827	
Level 1 Residual variance	0.514	0.717		0.512	0.715	
Deviance (<i>df</i>)		3508.2 (1396)			3503.2 (1395)	
Δ Deviance (<i>df</i>)		120.8*** (4)			5.0* (1)	
AIC		3522.2			3519.2	
BIC		3558.9			3561.2	

Note. Table contains unstandardized coefficients; CI = Bootstrap confidence interval;

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

Table 4. Results from Multilevel Analyses Regarding Hindrance Appraisal

	Hindrance Appraisal					
	Model 1			Model 2		
	Est.	SE	95% CI	Est.	SE	95% CI
Level 2 (between-person)						
Constant	1.760	0.056	[1.646, 1.868]	1.760	0.059	[1.664, 1.870]
Person mean Responsibility	0.024	0.078	[-0.126, 0.195]	0.023	0.078	[-0.132, 0.174]
Person mean Self-Efficacy	-0.348	0.093	[-0.528, -0.191]	-0.349	0.093	[-0.542, -0.164]
Level 1 (within-person)						
Responsibility	0.079	0.029	[0.023, 0.141]	0.079	0.029	[0.026, 0.135]
Self-Efficacy	-0.115	0.036	[-0.186, -0.047]	-0.116	0.036	[-0.189, -0.043]
Responsibility x Self-Efficacy				-0.032	0.057	[-0.135, 0.084]
Variance components						
Level 2 Variance of constant	0.570	0.755		0.570	0.755	
Level 1 Residual variance	0.399	0.632		0.399	0.632	
Deviance (<i>df</i>)		3169.2 (1396)			3168.9 (1395)	
Δ Deviance (<i>df</i>)		30.7*** (4)			0.33 (1)	
AIC		3183.2			3184.9	
BIC		3219.9			3226.9	

Note. Table contains unstandardized coefficients; CI = Bootstrap confidence interval;

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

Finally, to test Hypothesis 3b, which predicted that self-efficacy moderates the positive relationship between responsibility and hindrance appraisal (with stronger relationships at lower self-efficacy), multilevel regression analysis with interaction terms was conducted. The results can be seen in Table 3. The baseline model showed that daily responsibility significantly predicted daily hindrance appraisal ($t(1396) = 2.76, p = .006$), and daily self-efficacy was a significant negative predictor ($t(1396) = -3.19, p = .001$). Grand-mean centered self-efficacy also significantly negatively predicted hindrance appraisal ($t(1396) = -3.73, p < .001$). The interaction term between daily responsibility and daily self-efficacy was not statistically significant ($t(1395) = -0.57, p = .569$). Model comparison confirmed no significant improvement with the interaction term ($\Delta\chi^2(1) = 0.32, p = .569$). Therefore, Hypothesis 3b is rejected.

Exploratory Analyses

In addition to the primary hypothesis tests, I conducted exploratory analyses at the between-person level and examined additional correlations at the within-person level. At the between-person level, Hypothesis 1 was supported: participants who generally experienced higher responsibility reported less procrastination ($r = -.19, p < .05$), with the direct relationship in the mediation analysis confirming this ($B = -0.138, SE = 0.056, 95\% CI [-0.255, -0.025]$). However, Hypotheses 2a,b and 3a,b were not supported at the between-person level, with only individual paths of the mediation models reaching significance rather than the full indirect effects.

Additional correlational analyses at the within-person level revealed that responsibility showed significant positive correlations with both challenge appraisal ($r = .29, p < .001$) and hindrance appraisal ($r = .08, p = .009$), further supporting the ambivalent nature of responsibility as a workplace stressor. Moreover, self-efficacy demonstrated a significant negative correlation with procrastination at the within-person level ($r = -.10, p < .001$), indicating that on days when employees felt more capable, they engaged in less procrastination behavior. At the between-person level, different patterns emerged, with responsibility showing significant positive correlations with self-efficacy ($r = .31, p < .001$) and challenge appraisal ($r = .25, p < .001$), and a negative correlation with procrastination ($r = -.19, p = .021$).

Discussion

The present study examined how outcome responsibility influences procrastination through cognitive appraisal processes, and the moderating role of self-efficacy in this relationship. Employing a two-week diary study, I investigated whether daily fluctuations in

responsibility relate to procrastination through challenge and hindrance appraisals, and whether these appraisals depend on employees' self-efficacy beliefs. The findings reveal a complex pattern of relationships that both support and challenge existing theoretical frameworks in organizational psychology.

The study yielded several key findings regarding the relationship between responsibility and workplace procrastination. No significant direct relationship between daily responsibility and procrastination at the within-person level was found. However, exploratory analyses revealed a significant negative correlation at the between-person level, suggesting that employees who generally experience higher responsibility tend to procrastinate less overall, although day-to-day variations in responsibility do not directly impact procrastination behaviors.

The mediation analyses revealed divergent pathways. While responsibility increased challenge appraisal, challenge appraisal did not significantly reduce procrastination. However, responsibility also showed a positive relationship with hindrance appraisal, which in turn increased procrastination, resulting in a significant indirect effect.

Regarding the moderating role of self-efficacy, I found partial support for the hypotheses. Self-efficacy significantly moderated the relationship between responsibility and challenge appraisal, with higher self-efficacy strengthening this positive relationship. However, self-efficacy did not moderate the responsibility-hindrance appraisal relationship, though it did show a direct negative relationship with hindrance appraisal.

Interpretation of Results

The most important finding of this thesis is that responsibility does not function as a simple, unidirectional influence on workplace procrastination. Instead, its effects operate through complex cognitive appraisal mechanisms that may simultaneously promote and hinder effective work behaviors. This finding is in line with the Challenge-Hindrance Stressor Model, which classifies responsibility as a prototypical challenge stressor which can simultaneously lead to challenge and hindrance appraisal (Cavanaugh et al., 2000; Lepine et al., 2005). The positive relationships between responsibility and both challenge appraisal and hindrance appraisal at the within-person level provide a level of empirical support for recent theoretical developments suggesting that workplace stressors exist on a continuum rather than in discrete categories (Horan et al., 2020; Searle & Auton, 2015; Webster et al., 2011). This ambivalent nature of responsibility is particularly significant as it can help to explain the inconsistent findings in previous research regarding the relationships between job characteristics, such as responsibility, and employee outcomes where earlier studies found

mixed results regarding the Job Characteristics Model's predictions (Boonzaier et al., 2001; Fried & Ferris, 1987), the current findings suggest that these inconsistencies may stem from the dual appraisal pathways through which responsibility seems to operate.

Interpretation of the Main Effect

The absence of a direct within-person relationship between responsibility and procrastination (H1) is perhaps more informative than a significant direct relationship would have been. This null finding aligns with the Appraisals, Attributions, Adaptation model's emphasis on cognitive mediation (Mackey & Perrewé, 2014) and suggests that researchers and practitioners should not automatically assume simple cause-effect relationships between job characteristics and behavioral outcomes. The significant between-person correlation, however, indicates that more consistent amounts of responsibility may have cumulative effects that differ from acute, day-to-day variations. This distinction resonates with Kühnel et al.'s (2016) findings on the dynamic nature of procrastination and suggests that responsibility's effects may operate on multiple temporal scales.

Alternative explanations for this pattern include the possibility that individuals self-select into roles based on their procrastination tendencies, with those who procrastinate less gravitating toward positions with greater responsibility. Additionally, organizational promotion practices may systematically assign greater responsibility to employees who demonstrate lower procrastination tendencies, creating the observed between-person relationship through selection rather than causation. This would align with findings by Nguyen et al. (2013) that positions that demand higher levels of motivational skills are less likely to be occupied by individuals who exhibit high levels of procrastination tendencies.

Interpretation of Indirect Effects

The failure of challenge appraisal to reduce procrastination (H2a) represents one of the more theoretically conflicting findings of this thesis. This result directly contradicts core assumptions of both the Job Characteristics Model (Hackman & Oldham, 1975) and the Challenge-Hindrance Stressor Model (Cavanaugh et al., 2000), which posit that challenge stressors should enhance positive outcomes through increased motivation and engagement. This finding is particularly noteworthy given the robust positive relationship between responsibility and challenge appraisal in this dataset, confirming that employees do indeed perceive increased responsibility as challenging and growth-promoting. The translation of challenge appraisal to procrastination just seems to be lacking.

This paradox may become more comprehensible when viewed in the theoretical context of procrastination. As Steel (2007) and Kuhl and Beckmann (1994) emphasize,

procrastination represents a volitional rather than motivational failure, i.e. a breakdown in the translation of intentions into actions, rather than a lack of desire to perform. The findings in this thesis suggest that challenge appraisal may primarily influence the motivational components of work behavior (desire, intention formation) without necessarily strengthening the volitional components (action initiation, persistence). This distinction aligns with Howell et al.'s (2006) argument that procrastinators often possess adequate motivation but lack the volitional skills to transform intentions into behavior.

The temporal dynamics described in Temporal Motivation Theory (Steel & König, 2006) offer another possible explanatory framework. Challenge appraisal may increase the perceived value of task completion, but if this increased value is coupled with heightened performance standards or complexity, the net effect on the motivation equation of the model may be neutral or even negative. Employees facing challenging responsibilities may simultaneously experience increased task value and decreased expectancy of success, resulting in no net reduction in procrastination.

Furthermore, the measurement timing in the thesis' study may have captured a critical window on an individual level where challenge transforms into pressure. Previous research suggests curvilinear relationships between challenge stressors and outcomes (Mazzola & Disselhorst, 2019; O'Brien & Beehr, 2019). According to this perspective, challenge stressors enhance motivation only within a manageable range. When challenge stressors exceed an individual's capacity to cope effectively, their motivational benefits may diminish or reverse, with adverse effects predominating (O'Brien & Beehr, 2019). Daily diary measurements may be particularly sensitive to moments when challenge exceeds optimal levels, capturing the "tipping point" where an energizing challenge becomes an inhibiting pressure. This interpretation aligns with research indicating that both challenge and hindrance stressors have the potential to increase strain indicators (Boswell et al., 2004; Lepine et al., 2005).

An alternative explanation rooted in a theoretical environment involves the co-activation hypothesis: when responsibility simultaneously triggers both challenge and hindrance appraisals, the positive motivational effects of challenge may be neutralized by the negative emotional states associated with hindrance. This psychological ambivalence aligns with the AAA model's recognition that stressors can trigger competing emotional responses and action tendencies (Mackey & Perrewé, 2014). The simultaneous activation of approach-oriented tendencies from challenge appraisal and withdrawal-oriented tendencies from hindrance appraisal may create a state of behavioral paralysis. This internal conflict could manifest as procrastination, as employees become caught between the desire to engage with

growth opportunities and the impulse to avoid potential threats. Such ambivalence may be particularly problematic for self-regulation, as the competing action tendencies consume cognitive resources that might otherwise support task initiation and persistence (Muraven & Baumeister, 2000).

Another alternative explanation could be centered around the generally low levels of procrastination in this sample ($M = 1.56$). With procrastination already being relatively low for most participants, floor effects could have prevented challenge appraisal from reducing the level even further.

The supported mediation through hindrance appraisal (H2b) provides validation for stress appraisal theories while extending the understanding of potential negative effects of responsibility. This finding aligns with the AAA model's predictions that hindrance appraisals trigger negative emotions and maladaptive coping behaviors (Mackey & Perrewé, 2014). The pathway from responsibility through hindrance appraisal to increased procrastination confirms that when employees perceive accountability demands as obstacles rather than opportunities, they engage in the withdrawal behaviors characteristic of procrastination. This finding gains additional significance when considered alongside research on passive procrastination as a self-handicapping strategy (Martin et al., 2003). When responsibility is appraised as a hindrance, procrastination may serve a protective function, providing a ready excuse for potential failure ("I didn't have enough time" rather than "I wasn't capable"). This self-protective mechanism aligns with findings that procrastinators often experience lower self-esteem and higher fear of failure (Steel, 2007).

The relatively small effect size of this pathway requires consideration. While statistically significant, the limited magnitude suggests that hindrance appraisal represents just one of multiple mechanisms linking workplace demands to procrastination. This finding resonates with Van Eerde's (2003) meta-analysis indicating that procrastination has multiple antecedents with generally small to moderate effect sizes. The complexity of procrastination as a behavioral phenomenon likely requires multiple converging factors rather than single dominant causes.

Importantly, this pathway demonstrates that responsibility's traditionally positive reputation in organizational psychology may obscure its potential for negative consequences. The finding extends Bajorski's (2022) work on outcome responsibility by showing that even this specific, theoretically beneficial form of responsibility can trigger maladaptive responses under certain appraisal conditions. This more nuanced view aligns with contemporary stress research (Searle & Auton, 2015; Webster et al., 2011), which demonstrate that identical

workplace stressors can be appraised as either challenges or hindrances depending on individual perception and situational context. The recognition that workplace demands may not be inherently positive or negative, but rather derive their impact through subjective cognitive appraisal processes, represents a fundamental shift from earlier stress models that assumed fixed effects of job characteristic

Interpretation of the Moderation

The differential moderating effects of self-efficacy reveal potential insights about individual differences in stress processing. The confirmed moderation of the responsibility-challenge appraisal relationship (H3a) extends Bandura's (1997, 2001) theoretical framework by demonstrating that self-efficacy can not only influence behavior directly, but can also shape how workplace demands are cognitively processed. This finding provides empirical support for Ventura et al.'s (2015) conceptualization of self-efficacy as creating different psychological pathways for stress response.

The strengthening effect of high self-efficacy on the responsibility-challenge appraisal relationship is particularly noteworthy. This pattern suggests that confidence in one's capabilities doesn't merely add to challenge perceptions but fundamentally alters how responsibility is interpreted. For highly efficacious employees, increased responsibility appears to activate what Bandura (1999) termed a "challenge orientation," where demands are automatically processed through a growth-oriented lens. This finding has important implications for understanding why job enrichment interventions show variable success rates—their effectiveness may depend on recipients' self-efficacy levels.

The absence of moderation for hindrance appraisal (H3b), despite self-efficacy's direct negative effect, reveals a potential boundary for self-efficacy's protective effects. This finding suggests that self-efficacy operates through two distinct mechanisms: a general protective effect against negative appraisals (main effect) and a specific enhancement of positive appraisals when facing increased demands (moderation effect). These two mechanisms extend Jerusalem and Schwarzer's (1992) findings on self-efficacy and appraisal patterns (individuals with different levels of self-efficacy show distinct appraisal patterns over time) by indicating that protection against threats differs qualitatively from enhancement of challenges.

Alternative interpretations of these self-efficacy findings warrant consideration. The moderation effect for challenge appraisal might reflect a ceiling effect, where employees with low self-efficacy have limited capacity to perceive any work demands as challenging, making the addition of responsibility less impactful. Conversely, the absence of moderation for

hindrance appraisal might indicate that certain aspects of responsibility (e.g., potential for blame, visibility of failure) are universally threatening regardless of confidence levels, with self-efficacy only able to provide general buffering rather than specific protection.

Taken together, these findings suggest an adaptation in conceptualization of how workplace demands influence employee behavior. Rather than operating through simple direct effects or single mediational pathways, responsibility appears to trigger a complex cascade of cognitive evaluations that can lead to contradictory behavioral tendencies. This multiplicity of pathways helps explain why previous research has found inconsistent relationships between job characteristics and outcomes (Boonzaier et al., 2001; Fried & Ferris, 1987).

The simultaneous operation of challenge and hindrance pathways, with only the latter relating to procrastination, suggests that current theoretical models may oversimplify the relationship between appraisal and behavior. While the Challenge-Hindrance Stressor Model successfully predicts differential relationships of appraisals with affective outcomes (Crawford et al., 2010; Lepine et al., 2005), its predictions for behavioral outcomes appear more complex. The current findings suggest that challenge appraisals may primarily influence motivational states and attitudes rather than a translation of those states into tangible self-regulatory behaviors. This distinction between motivation and effects on self-regulation is to date not clearly distinguished in common theoretical models.

The within-person approach reveals that daily fluctuations in responsibility can create dynamic appraisal patterns which would be difficult to capture with between-person designs. The finding that responsibility correlates with procrastination between-persons but not within-persons highlights the importance of temporal scale in organizational research. Short-term and long-term effects of workplace characteristics may operate through entirely different mechanisms, a possibility which cannot be tested with more common cross-sectional research.

The moderating role of self-efficacy adds another layer of complexity, suggesting that individual differences don't simply strengthen or weaken main effects, but can qualitatively alter how workplace demands are processed. This person-situation interaction aligns with contemporary views of workplace stress as emerging from the dynamic interplay between workplace demands and personal resources (Bakker & Demerouti, 2007) but extends these models by showing that resources have the potential to shape appraisal processes rather than merely buffering outcomes.

Finally, these findings highlight the flaws of viewing procrastination solely as an individual failing. By demonstrating that workplace characteristics and their cognitive appraisal influence procrastination, this thesis positions procrastination as a product of person-environment interaction. A more systemic view suggests that interventions targeting only individual self-regulation skills or only job design may be insufficient—effective procrastination reduction likely requires addressing both environmental demands and the cognitive processes through which they are interpreted.

Strengths and Limitations

This thesis makes several methodological and theoretical contributions. The diary study design allowed for capturing within-person processes as they unfold in employees' natural work environments, providing ecological validity while reducing retrospective bias (Fisher & To, 2012; Ohly et al., 2010). Importantly, this thesis is among the first to investigate responsibility as a situational antecedent of workplace procrastination using a within-person approach, addressing research on dynamic, situational factors influencing procrastination rather than treating it solely as a stable personality trait (Kühnel et al., 2016; Prem et al., 2018).

The two-week duration with 10 measurement points provided sufficient within-person observations to detect day-to-day fluctuations in responsibility, appraisal processes, and procrastination behaviors. By separating measurements across two daily time points—with responsibility, self-efficacy, and appraisals assessed at midday and procrastination measured at day's end—the study design reduces concerns about common method bias (Podsakoff et al., 2003). This temporal separation helps establish within-day temporal precedence for the outcome variable, strengthening confidence in the directional relationships proposed in the theoretical model.

The multilevel analytical approach appropriately separated within-person and between-person variance, revealing different patterns at each level that would have been obscured in traditional cross-sectional designs. This analytical strategy is particularly important given that self-efficacy and procrastination showed substantial within-person variance, confirming that these constructs fluctuate meaningfully from day to day and warranting the diary study approach.

The sample size and resulting daily observations fit the threshold recommended by Arend and Schaefer (2019, Table 5) providing adequate statistical power for the multilevel analyses. The response rate represents good compliance for diary studies of similar duration, particularly considering the measurement schedule with two questionnaires per day.

Methodologically, I employed rigorous analytical procedures including multilevel confirmatory factor analysis to verify the distinctiveness of the five constructs relevant to this thesis. The use of both person-mean centering and grand-mean centering allowed for proper disaggregation of within-person and between-person effects. The adaptation of established scales for diary use, while maintaining good reliability (α ranging from .77 to .86 at the within-person level), demonstrates attention to measurement quality while keeping participant strain in check.

The sample composition offers additional strengths. The age range spanning from 18 to 68 years, inclusion of both leadership (23.4%) and non-leadership positions, and mix of work arrangements (56.1% with home office options) enhance the generalizability of findings across different career stages and contemporary work contexts. The collaborative nature of the data collection, while presenting some limitations, enabled a larger and more diverse recruitment reach than would have been possible for a single researcher.

Theoretically, my integration of multiple frameworks—the Challenge-Hindrance Stressor Model, Job Characteristics Model, and AAA model—provides a more comprehensive understanding of how workplace demands influence behavior. The simultaneous examination of dual appraisal pathways advances stress research by empirically demonstrating the ambivalent nature of responsibility as a workplace stressor.

However, several limitations warrant consideration when interpreting the findings. First, a critical limitation stems from the measurement approach necessitated by the collaborative study design. Challenge and hindrance appraisals were assessed globally for the entire workday rather than specifically for responsibility, as was originally intended for the context of this thesis. This was done to reduce the number of daily items and thus participant strain. Participants likely encountered multiple stressors throughout their workday, and the global appraisal measures captured their overall stress evaluation rather than their specific appraisal of responsibility. This measurement strategy potentially diluted the strength of observed relationships and may explain unexpected findings such as the non-significant path from challenge appraisal to procrastination.

Second, the exclusive reliance on self-report measures introduces potential common method bias. While obtaining supervisor or colleague ratings would strengthen the study, such multi-source approaches present practical challenges in diary studies. Supervisors may not observe employees' daily procrastination behaviors, particularly in contexts with high autonomy or remote work arrangements. Additionally, requesting daily ratings from multiple sources over two weeks would likely result in substantial missing data due to forgotten

submissions, lack of daily contact, or dropout (Ohly et al., 2010). Nevertheless, the absence of objective measures of procrastination or external validation limits the ability to rule out response biases completely.

Third, the repetitive nature of daily assessments may have induced response tendencies or reduced day-to-day variation due to habituation effects, a common issue with experience-sampling diary methods (Fritz et al., 2024). Participants completing identical scales twice daily for ten workdays may have developed response patterns or experienced survey fatigue, potentially attenuating true relationships. The trade-off between obtaining sufficient within-person data points and minimizing participant burden remains a fundamental challenge in diary research.

Fourth, despite the temporal separation of some measurements, not all variables could be measured at different time points. This means that while there was some reduction of concern for common method bias, measuring each construct separately could have improved on this (Podsakoff et al., 2003). Responsibility, self-efficacy, and cognitive appraisals were all assessed during the midday measurement, preventing causal interpretation of relationships between these variables. While theoretical models suggest that responsibility influences appraisals, the concurrent measurement means reverse causality or reciprocal relationships cannot be ruled out. Future research might implement within-day cross-lagged designs with additional measurement points to allow stronger causal inferences, though this must be balanced against the risk of decreased participant compliance and increased dropout rates.

Fifth, scale adaptation presented both benefits and drawbacks. While shortened scales reduced participant burden and likely contributed to the good response rate, they may have sacrificed content validity. The responsibility scale, combining items from the Job Diagnostic Survey with newly created items from Bajorski (2022), lacks extensive validation in its current form, only being validated once before being used in this thesis. Similarly, while being validated in several studies (Kühnel et al., 2016; Prem et al., 2018), the procrastination scale's reduction from 16 to 6 items may have limited the ability to capture the full complexity of procrastination behaviors.

Sixth, the sample composition presents generalizability constraints for specific aspects. The predominance of participants from Austria (80.0%) and Germany (18.5%), the female majority (67.8%), and the high proportion of academically educated participants (51.7%) may limit applicability to other cultural contexts, gender distributions, or educational backgrounds. The exclusion of shift workers and those with non-traditional schedules further restricts generalizability to a subset of the working population.

Finally, the non-experimental design impedes strong causal inferences about the effects of responsibility on procrastination. While the diary methodology establishes temporal precedence for procrastination within days, unmeasured (or in the case of this large cooperative data collection, not included in the analysis) third variables such as daily workload variations, organizational deadlines, team dynamics, or external life events may confound observed relationships. The voluntary participation with incentive-based recruitment may have attracted individuals with particular characteristics, introducing self-selection bias (Heckman, 2018). Future experimental or quasi-experimental designs manipulating responsibility levels while measuring appraisals and procrastination would provide stronger evidence for causal relationships.

Implications for Future Research

This thesis' results highlight several promising avenues for future investigation that could further advance understanding of workplace procrastination and stress appraisal processes. Most critically, research could employ stressor-specific appraisal measures to more precisely examine how particular workplace demands are evaluated. This methodological refinement would provide clearer insights into the cognitive processes linking specific stressors to behavioral outcomes. The global appraisal measures used in this thesis, while necessary given the collaborative design, likely obscured important nuances in how responsibility specifically influences cognitive evaluations.

Unexpected findings regarding challenge appraisal and its failure to reduce procrastination warrant deeper investigation into the underlying mechanisms. Future studies could explore whether challenge perceptions primarily affect motivational rather than self-regulatory processes by employing dual-process measures that separately assess motivation and volition. Research might also investigate potential boundary conditions through experimental designs that manipulate challenge intensity, examining whether the relationship between challenge appraisal and procrastination follows the curvilinear patterns suggested by recent stress research (Mazzola & Disselhorst, 2019; O'Brien & Beehr, 2019).

Longitudinal studies extending beyond daily diary designs could examine how prolonged exposure to responsibility shapes appraisal patterns and procrastination tendencies over months or years. Such designs would clarify whether the between-person effects observed in this thesis reflect developmental processes whereby individuals learn to manage responsibility more effectively over time, selection effects where organizations promote less procrastination-prone individuals, or stable individual differences in responsibility management. Career transition studies following employees as they assume new roles with

varying responsibility levels could clarify these competing explanations while identifying critical periods for intervention.

Experimental manipulations of responsibility would provide stronger causal evidence and allow researchers to isolate the effects of responsibility from confounding workplace factors. Laboratory studies could systematically vary responsibility levels while measuring real-time cognitive appraisals and behavioral outcomes using behavioral observation methods rather than self-reports. Virtual reality simulations could create controlled workplace scenarios where responsibility consequences are manipulated while maintaining ecological validity. Field experiments implementing responsibility rotation schemes could examine within-person changes in procrastination patterns as employees cycle through high and low responsibility periods. With most of these designs, however, ecological validity would likely be lesser than with experience-sampling methods.

Future research should also explore additional moderators beyond self-efficacy that may shape the responsibility-procrastination relationship. Organizational factors such as autonomy support, error tolerance culture, and resource availability likely influence how responsibility is appraised and its subsequent effects on procrastination. Drawing from the Job Demands-Resources Model (Bakker & Demerouti, 2007), researchers could examine how various job resources interact with responsibility to influence appraisal processes. Team-level research could examine how shared responsibility affects individual procrastination patterns and whether social support buffers against hindrance appraisals. Individual factors such as perfectionism, fear of failure, regulatory focus, and temporal orientation may create vulnerability or resilience to responsibility-induced procrastination. Cross-cultural studies could examine whether cultural values regarding responsibility and time management moderate the relationships observed in this primarily Germanic sample.

The measurement of procrastination itself may warrant methodological innovation. Future studies could employ objective behavioral indicators such as task completion timestamps, project milestone achievement, or digital trace data from project management systems. Eye-tracking studies could reveal attention patterns associated with procrastination during responsibility-laden tasks. Ecological momentary assessment using smartphone apps could capture procrastination behaviors in real-time rather than relying on end-of-day retrospection. Multi-source data collection incorporating supervisor ratings, peer observations, and objective performance metrics would strengthen confidence in procrastination assessments while reducing common method bias concerns (Podsakoff et al., 2003). Realistically, these suggested approaches towards measuring procrastination represent

an optimistic outlook, as they would likely introduce significant challenges regarding economy and could contribute to increased participant strain.

Implications for Practice

The findings offer valuable insights for organizational practice that extend beyond traditional job design approaches. The recognition that responsibility does not universally reduce procrastination but rather operates through complex cognitive pathways suggests that organizations should adopt more nuanced strategies for work design and talent management. Simply increasing employee responsibility without considering individual and contextual factors may inadvertently increase procrastination through hindrance appraisals.

Organizations should implement comprehensive responsibility management systems that go beyond mere task allocation. This involves clearly communicating not just what employees are responsible for, but why their accountability matters for organizational success and how it connects to broader organizational goals. Managers should establish explicit boundaries around responsibility domains, preventing the ambiguity that can transform potentially energizing accountability into overwhelming burden. Regular responsibility audits could identify when cumulative responsibilities exceed employees' capacity to maintain positive appraisals, allowing for proactive redistribution before procrastination patterns emerge.

The central role of self-efficacy in shaping responsibility appraisals suggests that organizations should prioritize systematic capability development. This extends beyond traditional skills training to include structured programs that build employees' confidence in managing accountability. On a talent- and succession-management level, organizations could implement gradual responsibility systems where employees progressively assume greater accountability as they demonstrate mastery at each level, creating successful experiences with the potential to enhance self-efficacy (Bandura, 1997). Mentoring programs pairing high-responsibility “veterans” with emerging leaders could facilitate vicarious learning experiences that build efficacy beliefs, aligning with Social Cognitive Theory (Bandura, 1986). Regular feedback systems should emphasize capability development rather than merely performance evaluation, reinforcing employees' beliefs in their ability to handle challenging responsibilities.

Given the simultaneous presence of challenge and hindrance appraisals found in this thesis, managers need sophisticated approaches to monitoring employee perceptions of their work demands. This could involve implementing regular "responsibility check-ins" separate from performance reviews, where employees can openly discuss their cognitive and

emotional responses to their accountability levels without fear of negative evaluation. Organizations might develop early warning systems using surveys or regular verbal check-ins to identify when responsibility shifts from energizing to overwhelming for specific employees or teams. These systems should trigger supportive interventions rather than punitive responses, maintaining psychological safety while addressing emerging problems.

The finding that challenge appraisal alone does not reduce procrastination suggests that motivational interventions may be insufficient without corresponding support for self-regulatory capabilities. Organizations should complement traditional motivation-focused initiatives with programs specifically targeting action initiation and task persistence. This might include training in implementation intentions, time-blocking techniques, and environmental design strategies that reduce friction for task initiation. Workplace design could incorporate specific workspaces that minimize distractions for responsibility-heavy tasks, recognizing that motivated employees may still struggle with the self-regulatory demands of their roles.

Selection and placement decisions should incorporate sophisticated assessments of both self-efficacy and procrastination tendencies, moving beyond traditional competency evaluations. While the results show that employees with generally higher responsibility procrastinate less, this relationship likely depends critically on person-job fit. Organizations could develop role-specific responsibility profiles that match individual self-regulatory capabilities with position demands. Career development pathways should consider not just technical skills but also self-regulatory readiness for increased accountability. Transition support programs could help employees develop the cognitive and behavioral skills needed for roles with greater responsibility, preventing the negative spirals that can emerge when demands exceed capabilities.

Finally, the findings of this thesis suggest that addressing workplace procrastination requires systemic rather than individual-focused interventions. Organizations should examine their cultural messages about failure, mistakes, and learning to ensure they support challenge rather than hindrance appraisals of responsibility. Performance management systems should balance accountability with psychological safety, recognizing that fear-based motivation may increase hindrance appraisals and subsequent procrastination. Team structures could be designed to provide mutual support for high-responsibility tasks while maintaining individual accountability, creating environments where responsible action is both expected and supported.

These practical implications, while grounded in the empirical findings, require adaptation to specific organizational contexts. The modest effect sizes observed in this thesis suggest that responsibility-related interventions should be part of comprehensive approaches to enhancing workplace productivity rather than standalone solutions. Organizations implementing these recommendations should monitor their effectiveness through systematic evaluation, contributing to the evidence base for managing the complex relationship between workplace demands and employee self-regulation.

Conclusion

This thesis advances understanding of workplace procrastination by revealing the complex pathways through which responsibility influences self-regulatory behavior. Rather than exerting simple direct effects, responsibility operates through competing cognitive appraisal mechanisms that can increase procrastination behavior. The moderating role of self-efficacy highlights the importance of individual differences in shaping these appraisal processes, while the divergent findings for challenge and hindrance pathways question existing theoretical assumptions.

These results underscore that workplace stressors like responsibility cannot be neatly categorized as purely beneficial or detrimental. Their effects depend on subjective cognitive appraisals that vary both between individuals and within individuals across time. This complexity demands more nuanced approaches to job design and stress management that consider not just the objective presence of workplace demands but how employees perceive and interpret these demands.

As organizations continue to flatten hierarchies and distribute responsibility more broadly, understanding these psychological processes becomes increasingly critical. By recognizing that responsibility can simultaneously energize and impede, and that individual resources like self-efficacy shape these effects, organizations can design work environments that harness the motivational potential of responsibility while protecting against its potential to trigger procrastination. Future research building on these insights will be essential for developing evidence-based interventions that help employees navigate the complex demands of modern work life.

References

- Amabile, T., & Kramer, S. (2011). *The progress principle: Using small wins to ignite joy, engagement, and creativity at work* (1st ed.). Harvard Business Review Press.
<https://www.hbs.edu/faculty/Pages/item.aspx?num=40692>
- Arend, M. G., & Schäfer, T. (2019). Statistical power in two-level models: A tutorial based on Monte Carlo simulation. *Psychological Methods*, 24(1), 1–19.
<https://doi.org/10.1037/met0000195>
- Ariely, D., & Wertenbroch, K. (2002). Procrastination, deadlines, and performance: Self-control by precommitment. *Psychological Science*, 13(3), 219–224.
<https://doi.org/10.1111/1467-9280.00441>
- Bajorski, M. S. (2022). *Die Antezedenzen und Zusammenhänge von Ergebnisverantwortung mit Motivation und Beanspruchung unter Berücksichtigung von potenziellen wirtschaftlichen Schäden. [The antecedents and correlations of responsibility for results with motivation and stress, taking into account potential economic damage]* [Master's Thesis]. Karl-Franzens-Universität Graz.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328.
<https://doi.org/10.1108/02683940710733115>
- Ballweber, V. (2025). *Zeitdruck und Arbeitsengagement: Die Rolle von Selbstwirksamkeit und kognitiver Bewertung im Arbeitsalltag. [Time pressure and work engagement: The role of self-efficacy and cognitive appraisal in everyday working life]* [Unpublished master's thesis]. University of Vienna.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory* (pp. xiii, 617). Prentice-Hall, Inc.
- Bandura, A. (1997). *Self-efficacy: The exercise of control* (pp. ix, 604). W H Freeman/Times Books/ Henry Holt & Co.
- Bandura, A. (1999). Social cognitive theory of personality. In *Handbook of personality: Theory and research*, 2nd ed (pp. 154–196). Guilford Press.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. <https://doi.org/10.1146/annurev.psych.52.1.1>

- Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. (2005). An episodic process model of affective influences on performance. *Journal of Applied Psychology, 90*(6), 1054–1068. <https://doi.org/10.1037/0021-9010.90.6.1054>
- Beas, M. I., & Salanova, M. (2006). Self-efficacy beliefs, computer training and psychological well-being among information and communication technology workers. *Computers in Human Behavior, 22*(6), 1043–1058. <https://doi.org/10.1016/j.chb.2004.03.027>
- Behling, O. (1998). Employee selection: Will intelligence and conscientiousness do the job? *The Academy of Management Executive (1993-2005), 12*(1), 77–86.
- Boonzaier, B., Ficker, B., & Rust, B. (2001). A review of research on the Job Characteristics Model and the attendant Job Diagnostic Survey. *South African Journal of Business Management, 32*(1), Article 1. <https://doi.org/10.4102/sajbm.v32i1.712>
- Boswell, W., Olson-Buchanan, J., & Lepine, M. (2004). Relations between stress and work outcomes: The role of felt challenge, job control, and psychological strain. *Journal of Vocational Behavior, 64*, 165–181. [https://doi.org/10.1016/S0001-8791\(03\)00049-6](https://doi.org/10.1016/S0001-8791(03)00049-6)
- Cabrera-Aguilar, E., Zevallos-Francia, M., Morales-García, M., Ramírez-Coronel, A. A., Morales-García, S. B., Sairitupa-Sanchez, L. Z., & Morales-García, W. C. (2023). Resilience and stress as predictors of work engagement: The mediating role of self-efficacy in nurses. *Frontiers in Psychiatry, 14*. <https://doi.org/10.3389/fpsy.2023.1202048>
- Caplan, R. D., Cobb, S., & French, J. R. (1975). Relationships of cessation of smoking with job stress, personality, and social support. *Journal of Applied Psychology, 60*(2), 211–219. <https://doi.org/10.1037/h0076471>
- Carr, N. (2010). *The Shallows: What the Internet Is Doing to Our Brains*. W.W. Norton.
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology, 85*(1), 65–74. <https://doi.org/10.1037/0021-9010.85.1.65>
- Chauhan, R. S., MacDougall, A. E., Buckley, M. R., Howe, D. C., Crisostomo, M. E., & Zeni, T. (2020). Better late than early? Reviewing procrastination in organizations. *Management Research Review, 43*(10), 1289–1308. <https://doi.org/10.1108/MRR-09-2019-0413>
- Choi, J. N., & Moran, S. V. (2009). Why not procrastinate? Development and validation of a new active procrastination scale. *Journal of Social Psychology, 149*(2), 195–211. <https://doi.org/10.3200/SOCP.149.2.195-212>

- Chu, A. H. C., & Choi, J. N. (2005). Rethinking procrastination: Positive effects of “active” procrastination behavior on attitudes and performance. *Journal of Social Psychology, 145*(3), 245–264. <https://doi.org/10.3200/SOCP.145.3.245-264>
- Claessens, B., Eerde, W., Rutte, C., & Roe, R. (2010). Things to do today: A daily diary study on task completion at work. *Applied Psychology, 59*, 273–295. <https://doi.org/10.1111/j.1464-0597.2009.00390.x>
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*(5), 834–848. <https://doi.org/10.1037/a0019364>
- D’Abate, C. P., & Eddy, E. R. (2007). Engaging in personal business on the job: Extending the presenteeism construct. *Human Resource Development Quarterly, 18*(3), 361–383. <https://doi.org/10.1002/hrdq.1209>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- DeShon, R. P., Kozlowski, S. W. J., Schmidt, A. M., Milner, K. R., & Wiechmann, D. (2004). A multiple-goal, multilevel model of feedback effects on the regulation of individual and team performance. *Journal of Applied Psychology, 89*(6), 1035–1056. <https://doi.org/10.1037/0021-9010.89.6.1035>
- Ferrari, J. R., Díaz-Morales, J. F., O’Callaghan, J., Díaz, K., & Argumedo, D. (2007). Frequent behavioral delay tendencies by adults: International prevalence rates of chronic procrastination. *Journal of Cross-Cultural Psychology, 38*(4), 458–464. <https://doi.org/10.1177/0022022107302314>
- Ferrari, J. R., Doroszko, E., & Joseph, N. (2005). Exploring procrastination in corporate settings: Sex, status, and settings for arousal and avoidance Types. *Individual Differences Research, 3*(2), 140–149.
- Ferris, G. R., Dulebohn, J. H., Frink, D. D., George-Falvy, J., Mitchell, T. R., & Matthews, L. M. (1997). Job and organizational characteristics, accountability, and employee influence. *Journal of Managerial Issues, 9*(2), 162–175.
- Fisher, C. D., & To, M. L. (2012). Using experience sampling methodology in organizational behavior. *Journal of Organizational Behavior, 33*(7), 865–877. <https://doi.org/10.1002/job.1803>

- Fried, Y., & Ferris, G. R. (1987). The validity of the Job Characteristics Model: A review and meta-analysis. *Personnel Psychology*, 40(2), 287–322. <https://doi.org/10.1111/j.1744-6570.1987.tb00605.x>
- Fritz, J., Piccirillo, M. L., Cohen, Z. D., Frumkin, M., Kirtley, O., Moeller, J., Neubauer, A. B., Norris, L. A., Schuurman, N. K., Snippe, E., & Bringmann, L. F. (2024). So you want to do ESM? 10 essential topics for implementing the Experience-Sampling Method. *Advances in Methods and Practices in Psychological Science*, 7(3), 25152459241267912. <https://doi.org/10.1177/25152459241267912>
- Gersick, C. J. G. (1989). Marking time: Predictable transitions in task groups. *The Academy of Management Journal*, 32(2), 274–309. <https://doi.org/10.2307/256363>
- Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology*, 55(3), 259–286. <https://doi.org/10.1037/h0031152>
- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60(2), 159–170. <https://doi.org/10.1037/h0076546>
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance*, 16(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress*, 22(3), 224–241. <https://doi.org/10.1080/02678370802379432>
- Hammer, C. A., & Ferrari, J. R. (2002). Differential incidence of procrastination between blue and white-collar workers. *Current Psychology*, 21(4), 333–338. <https://doi.org/10.1007/s12144-002-1022-y>
- Heckman, J. J. (2018). Selection bias and self-selection. In *The New Palgrave Dictionary of Economics* (pp. 12130–12147). Palgrave Macmillan, London. https://doi.org/10.1057/978-1-349-95189-5_1762
- Horan, K. A., Nakahara, W. H., DiStaso, M. J., & Jex, S. M. (2020). A review of the Challenge-Hindrance Stress Model: Recent advances, expanded paradigms, and recommendations for future research. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.560346>
- Howell, A. J., Watson, D. C., Powell, R. A., & Buro, K. (2006). Academic procrastination: The pattern and correlates of behavioural postponement. *Personality and Individual Differences*, 40(8), 1519–1530. <https://doi.org/10.1016/j.paid.2005.11.023>

- Jackson, P. R., Wall, T. D., Martin, R., & Davids, K. (1993). New measures of job control, cognitive demand, and production responsibility. *Journal of Applied Psychology*, 78(5), 753–762. <https://doi.org/10.1037/0021-9010.78.5.753>
- Jandrasits, P. (2025). *Verantwortungsübernahme am Arbeitsplatz: Wie Resilienz und Stressbewertung die Auswirkungen von beruflicher Verantwortung auf tägliches Arbeitsengagement beeinflussen [Taking responsibility at work: How stress appraisal and resilience influence the impact of job responsibility on daily work engagement]* [Unpublished master's thesis]. University of Vienna.
- Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In *Self-Efficacy*. Taylor & Francis.
- Jex, S. M., & Bliese, P. D. (1999). Efficacy beliefs as a moderator of the impact of work-related stressors: A multilevel study. *Journal of Applied Psychology*, 84(3), 349–361. <https://doi.org/10.1037/0021-9010.84.3.349>
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285–308. <https://doi.org/10.2307/2392498>
- Klingsieck, K. B. (2013). Procrastination: When good things don't come to those who wait. *European Psychologist*, 18(1), 24–34. <https://doi.org/10.1027/1016-9040/a000138>
- Kraft, T. (in prep.). *Zwischen Routine und Herausforderung—Der Zusammenhang von Aufgabenstruktur und Job Crafting [Between routine and challenge: The relationship between task structure and job crafting]* [Unpublished master's thesis]. University of Vienna.
- Kuhl, J. (2000). A functional-design approach to motivation and self-regulation: The dynamics of personality systems and interactions. In *Handbook of self-regulation* (pp. 111–169). Academic Press. <https://doi.org/10.1016/B978-012109890-2/50034-2>
- Kuhl, J., & Beckmann, J. (1994). *Volition and personality: Action versus state orientation*. Hogrefe & Huber.
- Kühnel, J., Bledow, R., & Feuerhahn, N. (2016). When do you procrastinate? Sleep quality and social sleep lag jointly predict self-regulatory failure at work. *Journal of Organizational Behavior*, 37(7), 983–1002. <https://doi.org/10.1002/job.2084>
- Kühnel, J., Syrek, C. J., & Dreher, A. (2018). Why don't you go to bed on time? A daily diary study on the relationships between chronotype, self-control resources and the phenomenon of bedtime procrastination. *Frontiers in Psychology*, 9, 77. <https://doi.org/10.3389/fpsyg.2018.00077>

- Lay, C. H. (1986). At last, my research article on procrastination. *Journal of Research in Personality*, 20(4), 474–495. [https://doi.org/10.1016/0092-6566\(86\)90127-3](https://doi.org/10.1016/0092-6566(86)90127-3)
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. Springer.
- Lepine, J. A., Podsakoff, N. P., & Lepine, M. A. (2005). A Meta-Analytic Test of the Challenge Stressor–Hindrance Stressor Framework: An Explanation for Inconsistent Relationships Among Stressors and Performance. *Academy of Management Journal*, 48(5), 764–775. <https://doi.org/10.5465/amj.2005.18803921>
- LePine, M. A., Zhang, Y., Crawford, E. R., & Rich, B. L. (2016). Turning their pain to gain: Charismatic leader influence on follower stress appraisal and job performance. *Academy of Management Journal*, 59(3), 1036–1059. <https://doi.org/10.5465/amj.2013.0778>
- Llorens, S., Schaufeli, W., & Salanova, M. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior*, 23, 825–841. <https://doi.org/10.1016/j.chb.2004.11.012>
- Lonergan, J. M., & Maher, K. J. (2000). The relationship between job characteristics and workplace procrastination as moderated by locus of control. *Journal of Social Behavior and Personality*, 15, 213–224.
- Mackey, J. D., & Perrewé, P. L. (2014). The AAA (appraisals, attributions, adaptation) model of job stress: The critical role of self-regulation. *Organizational Psychology Review*, 4(3), 258–278. <https://doi.org/10.1177/2041386614525072>
- Martin, A. J., Marsh, H. W., Williamson, A., & Debus, R. L. (2003). Self-handicapping, defensive pessimism, and goal orientation: A qualitative study of university students. *Journal of Educational Psychology*, 95(3), 617–628. <https://doi.org/10.1037/0022-0663.95.3.617>
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70(1), 149–171. <https://doi.org/10.1016/j.jvb.2006.09.002>
- Mazzola, J. J., & Disselhorst, R. (2019). Should we be “challenging” employees?: A critical review and meta-analysis of the challenge-hindrance model of stress. *Journal of Organizational Behavior*, 40(8), 949–961. <https://doi.org/10.1002/job.2412>
- Meyer, R. D., Dalal, R. S., & Bonaccio, S. (2009). A meta-analytic investigation into the moderating effects of situational strength on the conscientiousness-performance relationship. *Journal of Organizational Behavior*, 30(8), 1077–1102. <https://doi.org/10.1002/job.602>

- Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extrarole efforts to initiate workplace change. *Academy of Management Journal*, 42(4), 403–419.
<https://doi.org/10.2307/257011>
- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126(2), 247–259.
<https://doi.org/10.1037/0033-2909.126.2.247>
- Nguyen, B., Steel, P., & Ferrari, J. R. (2013). Procrastination's impact in the workplace and the workplace's impact on procrastination. *International Journal of Selection and Assessment*, 21(4), 388–399. <https://doi.org/10.1111/ijsa.12048>
- O'Brien, K. E., & Beehr, T. A. (2019). So far, so good: Up to now, the challenge–hindrance framework describes a practical and accurate distinction. *Journal of Organizational Behavior*, 40(8), 962–972. <https://doi.org/10.1002/job.2405>
- O'Donoghue, T., & Rabin, M. (1999). Doing It now or later. *The American Economic Review*, 89(1), 103–124.
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research. *Journal of Personnel Psychology*, 9(2), 79–93. <https://doi.org/10.1027/1866-5888/a000009>
- Orhan, M. A., Castellano, S., Khelladi, I., Marinelli, L., & Monge, F. (2021). Technology distraction at work. Impacts on self-regulation and work engagement. *Journal of Business Research*, 126, 341–349. <https://doi.org/10.1016/j.jbusres.2020.12.048>
- Paulsen, R. (2015). Non-work at work: Resistance or what? *Organization*, 22(3), 351–367.
<https://doi.org/10.1177/1350508413515541>
- Peugh, J., & Feldon, D. F. (2020). “How well does your structural equation model fit your data?”: Is Marcoulides and Yuan's Equivalence Test the answer? *CBE—Life Sciences Education*, 19(3), es5. <https://doi.org/10.1187/cbe.20-01-0016>
- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor–hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology*, 92(2), 438–454. <https://doi.org/10.1037/0021-9010.92.2.438>
- 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>

- Prem, R., Scheel, T. E., Weigelt, O., Hoffmann, K., & Korunka, C. (2018). Procrastination in daily working Life: A diary study on within-person processes that link work characteristics to workplace procrastination. *Frontiers in Psychology, 9*.
<https://doi.org/10.3389/fpsyg.2018.01087>
- R Core Team. (2024). *R: A language and environment for statistical computing* (Version 4.3.2) [Computer software]. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Reijseger, G., Schaufeli, W. B., Peeters, M. C. W., Taris, T. W., van Beek, I., & Ouweneel, E. (2013). Watching the paint dry at work: Psychometric examination of the Dutch Boredom Scale. *Anxiety, Stress, & Coping, 26*(5), 508–525.
<https://doi.org/10.1080/10615806.2012.720676>
- Rengshausen, T. (in prep.). *Die Balance von Arbeitsmenge und Aufblühen, unter Berücksichtigung von Selbstwirksamkeit und Job Autonomie [The balance between workload and flourishing, regarding self-efficacy and job autonomy] [Unpublished master's thesis]*. University of Vienna.
- Rigotti, T., Schyns, B., & Mohr, G. (2008). A short version of the Occupational Self-Efficacy Scale: Structural and construct validity across five countries. *Journal of Career Assessment, 16*(2), 238–255. <https://doi.org/10.1177/1069072707305763>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Salanova, M., Bakker, A. B., & Llorens, S. (2006). Flow at work: Evidence for an upward spiral of personal and organizational resources. *Journal of Happiness Studies, 7*(1), 1–22. <https://doi.org/10.1007/s10902-005-8854-8>
- Salanova, M., Grau, R. M., Cifre, E., & Llorens, S. (2000). Computer training, frequency of usage and burnout: The moderating role of computer self-efficacy. *Computers in Human Behavior, 16*(6), 575–590. [https://doi.org/10.1016/S0747-5632\(00\)00028-5](https://doi.org/10.1016/S0747-5632(00)00028-5)
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). “Yes, I can, I feel good, and I just do it!” On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology, 60*(2), 255–285. <https://doi.org/10.1111/j.1464-0597.2010.00435.x>
- Salanova, M., Peiró, J. M., & Schaufeli, W. B. (2002). Self-efficacy specificity and burnout among information technology workers: An extension of the job demand-control model. *European Journal of Work and Organizational Psychology, 11*(1), 1–25.
<https://doi.org/10.1080/13594320143000735>

- Schaubroeck, J., & Fink, L. S. (1998). Facilitating and inhibiting effects of job control and social support on stress outcomes and role behavior: A contingency model. *Journal of Organizational Behavior*, 19(2), 167–195. [https://doi.org/10.1002/\(SICI\)1099-1379\(199803\)19:2<167::AID-JOB831>3.0.CO;2-T](https://doi.org/10.1002/(SICI)1099-1379(199803)19:2<167::AID-JOB831>3.0.CO;2-T)
- Schlenker, B. R., Britt, T. W., Pennington, J., Murphy, R., & Doherty, K. (1994). The triangle model of responsibility. *Psychological Review*, 101(4), 632–652. <https://doi.org/10.1037/0033-295x.101.4.632>
- Schmid, J. (2025). *Zwischen Routine und Herausforderung—Der Zusammenhang von Aufgabenstruktur und Job Crafting [Between routine and challenge: The relationship between task structure and job crafting] [Unpublished master's thesis]*. University of Vienna.
- Schmied, K. (2025). *Zeitdruck und subjektive Vitalität im Arbeitsalltag: Die Rolle von körperlicher Aktivität und Resilienz [Time pressure and subjective vitality at work: The role of physical activity and resilience] [Unpublished master's thesis]*. University of Vienna.
- Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2015). Is outcome responsibility at work emotionally exhausting? Investigating employee proactivity as a moderator. *Journal of Occupational Health Psychology*, 20(4), 491–500. <https://doi.org/10.1037/a0039011>
- Schwarzer, R. (1999). *General perceived self-efficacy in 14 cultures*. <https://userpage.fu-berlin.de/~health/world14.htm>
- Searle, B. J., & Auton, J. C. (2015). The merits of measuring challenge and hindrance appraisals. *Anxiety, Stress, & Coping*, 28(2), 121–143. <https://doi.org/10.1080/10615806.2014.931378>
- Sebzda, K. (in prep.). *Die Rolle des Zusammenspiels von Zeitdruck und Selbstwirksamkeit für das Flow-Erleben und die Vitalität im Arbeitsalltag [The Role of the Interaction Between Time Pressure and Self-Efficacy in Flow Experience and Vitality in Everyday Work Life] [Unpublished master's thesis]*. University of Vienna.
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports*, 51(2), 663–671. <https://doi.org/10.2466/pr0.1982.51.2.663>
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422–445. <https://doi.org/10.1037/1082-989X.7.4.422>

- Sirois, F. M. (2007). "I'll look after my health, later": A replication and extension of the procrastination-health model with community-dwelling adults. *Personality and Individual Differences*, 43(1), 15–26. <https://doi.org/10.1016/j.paid.2006.11.003>
- Smith, C. A., & Kirby, L. D. (2011). The role of appraisal and emotion in coping and adaptation. In R. J. Contrada & A. Baum (Eds.), *The handbook of stress science: Biology, psychology, and health* (pp. 195–208). Springer.
- Stajkovic, A. D., & Luthans, F. (2003). Social cognitive theory and self-efficacy: Implications for motivation theory and practice. In L. W. Porter, G. A. Bigley, & R. M. Steers (Eds.), *Motivation and work behavior* (8th ed., pp. 126–140). McGraw-Hill.
- Stead, R., Shanahan, M. J., & Neufeld, R. W. J. (2010). "I'll go to therapy, eventually": Procrastination, stress and mental health. *Personality and Individual Differences*, 49(3), 175–180. <https://doi.org/10.1016/j.paid.2010.03.028>
- Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133(1), 65–94. <https://doi.org/10.1037/0033-2909.133.1.65>
- Steel, P. (2010). *The procrastination equation: How to stop putting things off and start getting stuff done*. Random House Canada.
- Steel, P., & Ferrari, J. (2013). Sex, education and procrastination: An epidemiological study of procrastinators' characteristics from a global sample. *European Journal of Personality*, 27(1), 51–58. <https://doi.org/10.1002/per.1851>
- Steel, P., & König, C. J. (2006). Integrating theories of motivation. *The Academy of Management Review*, 31(4), 889–913. <https://doi.org/10.2307/20159257>
- Stefanovic, N. (in prep.). *Emotionale Erschöpfung am Arbeitsplatz: Die Rollen von Zeitdruck, sozialer Unterstützung und Kontrolle [Emotional exhaustion in the workplace: The roles of time pressure, social support and job control] [Unpublished master's thesis]*. University of Vienna.
- Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. *Psychological Science*, 8(6), 454–458. <https://doi.org/10.1111/j.1467-9280.1997.tb00460.x>
- Tuckman, B. W. (1991). The development and concurrent validity of the Procrastination Scale. *Educational and Psychological Measurement*, 51(2), 473–480. <https://doi.org/10.1177/0013164491512022>
- Van Eerde, W. (2000). Procrastination: Self-regulation in initiating aversive goals. *Applied Psychology*, 49(3), 372–389. <https://doi.org/10.1111/1464-0597.00021>

- Van Eerde, W. (2003). A meta-analytically derived nomological network of procrastination. *Personality and Individual Differences*, 35(6), 1410–1418.
[https://doi.org/10.1016/S0191-8869\(02\)00358-6](https://doi.org/10.1016/S0191-8869(02)00358-6)
- Ventura, M., Salanova, M., & Llorens, S. (2015). Professional self-efficacy as a predictor of burnout and engagement: The role of challenge and hindrance demands. *Journal of Psychology*, 149(3), 277–302. <https://doi.org/10.1080/00223980.2013.876380>
- Vera, M., Salanova, M., & Lorente, L. (2012). The predicting role of self-efficacy in the Job Demands-Resources Model: A longitudinal study. *Estudios de Psicología*, 33(2), 167–178. <https://doi.org/10.1174/021093912800676439>
- Vohs, K. D., & Baumeister, R. F. (2011). *Handbook of self-regulation: Research, theory, and applications*, 2nd ed (2nd ed., pp. xv, 592). Guilford Press.
- Wan, H. C., Downey, L. A., & Stough, C. (2014). Understanding non-work presenteeism: Relationships between emotional intelligence, boredom, procrastination and job stress. *Personality and Individual Differences*, 65, 86–90.
<https://doi.org/10.1016/j.paid.2014.01.018>
- Webster, J. R., Beehr, T. A., & Love, K. (2011). Extending the challenge-hindrance model of occupational stress: The role of appraisal. *Journal of Vocational Behavior*, 79(2), 505–516. <https://doi.org/10.1016/j.jvb.2011.02.001>
- Werner, M. L. (in prep.). *Flexibilität am Arbeitsplatz: Der Zusammenhang flexibler Homeoffice-Nutzung mit dem Arbeitsengagement unter Berücksichtigung von Autonomie [Flexibility in the workplace: The relationship of working from home and work engagement considering the role of autonomy]*. [Unpublished master's thesis]. University of Vienna.
- Wessel, J., Bradley, G. L., & Hood, M. (2019). Comparing effects of active and passive procrastination: A field study of behavioral delay. *Personality and Individual Differences*, 139, 152–157. <https://doi.org/10.1016/j.paid.2018.11.020>
- Withey, M., Gellatly, I. R., & Annett, M. (2005). The moderating effect of situation strength on the relationship between personality and provision of effort. *Journal of Applied Social Psychology*, 35(8), 1587–1608. <https://doi.org/10.1111/j.1559-1816.2005.tb02186.x>
- Young, E. (1989). *Night Thoughts* (S. Cornford, Ed.). Cambridge University Press. (Original work published in 1742)

Zhang, Y., & Fishbach, A. (2010). Counteracting obstacles with optimistic predictions.
Journal of Experimental Psychology: General, 139(1), 16–31.
<https://doi.org/10.1037/a0018143>

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Appendix

Study Materials (Original German Version)

Study Registration Questionnaire

Teilnehmer*inneninformation und Einwilligungserklärung zur Teilnahme an der Studie:

Herausforderungen im Arbeitsalltag (Masterarbeiten)

Sehr geehrte*r Teilnehmer*in,

herzlichen Dank für Ihre Bereitschaft an dieser arbeitspsychologischen Tagebuchstudie teilzunehmen. Im Folgenden geben wir Ihnen einen kurzen Überblick über unser Anliegen und die Studie.

1. Inhalt und Ziel der Studie

Durch wiederholte Befragungen im Arbeitsalltag gewährt die Studie Einblicke in die täglichen Arbeitsabläufe. Dies ermöglicht genauere Aussagen zum Umgang mit Stress und den Auswirkungen von Stress im Arbeitsalltag, sowie zu Veränderungen, die innerhalb eines Tages oder innerhalb mehrerer Tage stattfinden. Der dadurch entstehende Erkenntnisgewinn trägt zu einem besseren Verständnis des Arbeitserlebens bei und kann zur künftigen Verbesserung von Arbeitsbedingungen beitragen.

2. Ablauf der Studie

Nach erfolgreicher Einschreibung und Ausfüllen des allgemeinen Fragebogens zur Erfassung demografischer Daten und genereller Merkmale Ihrer Arbeit, bitten wir Sie für zwei Arbeitswochen (Mo-Fr) jeweils zwei Mal pro Tag kurze Fragebögen („Tagebucheinträge“) auszufüllen, die wir Ihnen jeweils um 10:00 und 14:00 Uhr per E-Mail zusenden. Bitte füllen Sie diese zur Mittagspause bzw. bei Arbeitsende aus. Die Tagebucheinträge können sowohl am Computer als auch bequem über das Handy ausgefüllt werden und sollten pro Tagebucheintrag etwa fünf Minuten in Anspruch nehmen.

3. Verwendung der Daten

Jegliche Informationen, die wir von Ihnen erhalten, werden vertraulich behandelt und ausschließlich für wissenschaftliche Zwecke verwendet. Es ist geplant die Ergebnisse und Primärdaten dieser Studie auch als wissenschaftliche Publikationen zu veröffentlichen. Dies geschieht in anonymisierter Form, d.h. ohne dass die Daten einer spezifischen Person zugeordnet werden können. Die vollständig anonymisierten Daten dieser Studie werden voraussichtlich als „offene Daten“; (open data) in einem internetbasierten Datenarchiv (z.B. OSF, ZPID, GESIS etc.) zugänglich gemacht. Damit folgt diese Studie Empfehlungen der Deutschen Forschungsgemeinschaft (DFG) und der Deutschen Gesellschaft für Psychologie (DGPs) zur Qualitätssicherung in der Forschung.

4. *Freiwilligkeit* Die Teilnahme an der Studie ist freiwillig. Sie können jederzeit und ohne Angabe von Gründen Ihre Einwilligung zur Teilnahme an dieser Studie widerrufen, ohne dass Ihnen daraus Nachteile entstehen.

5. *Risiken*

Durch die Teilnahme an dieser Studie entsteht kein Risiko, das über die Risiken des alltäglichen Lebens hinausgeht.

6. *Aufwandsentschädigung*

Unter allen Personen, die die Fragebögen regelmäßig beantworten (d.h. den allgemeinen Fragebogen sowie beide Tagebucheinträge an mind. 3 Tagen ausgefüllt haben), werden 3 Amazon-Gutscheine zu je 100 Euro verlost. Mit jedem Tag, an dem die beiden Tagebucheinträge ausgefüllt werden, erhöht sich die Gewinnchance. Es besteht kein Rechtsanspruch.

7. *Weitere Fragen?*

Bei weiteren Fragen oder eventuellen Problemen stehen wir Ihnen gerne zur Verfügung.
Mag. Dr. Roman Prem, roman.prem@univie.ac.at

Ihre Teilnahme an dieser Studie erfolgt freiwillig. Sie können jederzeit, ohne Angabe von Gründen, Ihre Bereitschaft zur Teilnahme ablehnen oder diese auch im Verlauf der Studie zurückziehen. Die Ablehnung der Teilnahme oder ein vorzeitiges Ausscheiden aus dieser Studie haben keine nachteiligen Folgen für Sie.

Um an dieser Studie teilnehmen zu können, ist es wichtig, dass Sie folgende Voraussetzungen erfüllen:

- Mindestalter: 18 Jahre
- Sie sind berufstätig (angestellt oder selbständig)
- Sie arbeiten derzeit mindestens 20 Wochenstunden (inkl. Überstunden/Mehrarbeit)
- Sie haben in der nächsten und übernächsten Woche keine längeren Abwesenheiten (z.B. Urlaub) geplant
- Sie führen Ihre Tätigkeit in der Regel wochentags tagsüber aus (in der Regel keine Nacht-, Wochenend- oder Feiertagsarbeit)

Baseline Questionnaire

(Only the items relevant for this thesis are included.)

Herausforderungen im Arbeitsalltag (Masterarbeiten)

Vielen Dank, dass Sie Ihre E-Mailadresse für die Studie registriert haben. Die folgenden Fragen dienen zur Erfassung demografischer Daten und der generellen Merkmale Ihrer Arbeit. Bitte antworten Sie auf alle Fragen spontan, ohne groß nachzudenken, und so vollständig wie möglich.

BL02_01: Alter:

_____ Jahre

BL03: Geschlecht:

- ☐ Weiblich
- ☐ Männlich
- ☐ _____

BL04: In welchem Land leben Sie derzeit?

Deutschland

- ☐ Österreich
- ☐ Schweiz
- ☐ In einem anderen Land, nämlich: _____

BL05: Was ist die höchste Ausbildung, die Sie erfolgreich abgeschlossen haben?

- ☐ Kein Pflichtschulabschluss
- ☐ Pflichtschule
- ☐ Berufsbildende mittlere Schule / Lehre
- ☐ Allgemeinbildende bzw. berufsbildende höhere Schule
- ☐ Akademie / Fachschule / Meisterprüfung
- ☐ Bachelor
- ☐ Master / Diplom
- ☐ Doktorat / Promotion

Diary Questionnaire (Noon)

Only the items relevant for this study are mentioned

BL06: Studieren Sie aktuell oder machen Sie aktuell eine Ausbildung?

Nein

Ja, und zwar: _____

BL07: Welche Tätigkeit üben Sie aus?

Bitte tragen Sie Ihre Berufsbezeichnung ein: _____

BL08: In welcher Branche arbeiten Sie?

- 1 = Land- und Forstwirtschaft, Fischerei
- 2 = Bergbau und Gewinnung von Steinen und Erden
- 3 = Verarbeitendes Gewerbe/Herstellung von Waren
- 4 = Energieversorgung
- 5 = Wasserversorgung; Abwasser- und Abfallentsorgung und Beseitigung von Umweltverschmutzungen
- 6 = Baugewerbe/Bau
- 7 = Handel; Instandhaltung und Reparatur von Kraftfahrzeugen
- 8 = Verkehr und Lagerei
- 9 = Gastgewerbe/Beherbergung und Gastronomie
- 10 = Information und Kommunikation
- 11 = Erbringung von Finanz- und Versicherungsdienstleistungen
- 12 = Grundstücks- und Wohnungswesen
- 13 = Erbringung von freiberuflichen, wissenschaftlichen und technischen Dienstleistungen
- 14 = Erbringung von sonstigen wirtschaftlichen Dienstleistungen
- 15 = Öffentliche Verwaltung, Verteidigung; Sozialversicherung
- 16 = Erziehung und Unterricht
- 17 = Gesundheits- und Sozialwesen
- 18 = Kunst, Unterhaltung und Erholung
- 19 = Erbringung von sonstigen Dienstleistungen
- 20 = Private Haushalte mit Hauspersonal; Herstellung von Waren und Erbringung von Dienstleistungen durch private Haushalte für den Eigenbedarf ohne ausgeprägten Schwerpunkt
- 21 = Extraterritoriale Organisationen und Körperschaften

BL09: Sind Sie selbstständig tätig?

- Nein.
- Ja, aber ich bin gleichzeitig auch in einem Unternehmen angestellt (unselbstständig tätig).
- Ja, ich bin ausschließlich selbstständig tätig.

BL10: Wie lange üben Sie Ihre jetzige [sic] Tätigkeit schon aus?

_____ Jahre

BL11: Sind Sie in einer Führungsposition?

- Ich bin Mitarbeiter*in ohne Führungsaufgaben

- Ich selbst habe Führungsaufgaben, die Mitarbeiter*innen unter mir haben keine Führungsaufgaben
- Über und unter mir befinden sich weitere Führungskräfte
- Ich ordne mich dem Top-Management zu (z.B. Geschäftsführer*in, CEO)

BL12: Wie viele Stunden arbeiten Sie durchschnittlich pro Woche (inkl. Mehrarbeit/Überstunden)?

_____Stunden pro Woche.

BL13: Arbeiten Sie (teilweise) im Homeoffice?

- Nein
- Ja, und zwar _____Stunden pro Woche

Diary Questionnaire (Noon)

(Only the items relevant for this thesis are included.)

Fragebogen zu Mittag

Sehr geehrte*r Teilnehmer*in, herzlich willkommen zum ersten Fragebogen des heutigen Tages! Dieser Fragebogen sollte um die Mittagspause herum ausgefüllt werden. Bitte antworten Sie auf alle Fragen spontan, ohne groß nachzudenken, und so vollständig wie möglich.

Vielen Dank vorab für Ihre Unterstützung!

MI07: Inwiefern treffen folgende Aussagen auf Ihren heutigen Arbeitstag zu?

Antwortformat: Gar nicht – ein wenig – teilweise – überwiegend – völlig

MI07_01 Ich empfinde heute ein hohes Maß an persönlicher Verantwortung für die Arbeit, die ich tue.

MI07_02 Ich bin heute allein dafür verantwortlich, ob die Arbeit gut gemacht wird oder nicht.

MI07_03 Ich fühle mich heute für die Ergebnisse meiner Arbeit verantwortlich.

MI07_04 Für die Qualität der Ergebnisse meiner Arbeit bin ich heute selbst zuständig.

MI07_05 Die Verantwortung für gute Ergebnisse meiner Arbeit zu sorgen, liegt heute bei mir.

MI08: Inwiefern treffen folgende Aussagen auf Ihren heutigen Arbeitstag zu?

Antwortformat: Gar nicht – ein wenig – teilweise – überwiegend – völlig

MI08_01 Heute trägt die Erfüllung meiner beruflichen Anforderungen dazu bei, mein persönliches Wachstum und Wohlbefinden zu verbessern.

MI08_02 Heute habe ich das Gefühl, dass mich meine beruflichen Anforderungen dazu herausfordern, persönliche Ziele zu erreichen und etwas zu leisten.

MI08_03 Heute habe ich generell das Gefühl, dass meine Arbeit meine persönliche Leistung fördert.

MI09: Inwiefern treffen folgende Aussagen auf Ihren heutigen Arbeitstag zu?

Antwortformat: Gar nicht – ein wenig – teilweise – überwiegend – völlig

MI09_01 Heute steht die Erfüllung meiner beruflichen Anforderungen meinem persönlichen Wachstum und Wohlbefinden im Weg.

MI09_02 Heute habe ich das Gefühl, dass mich meine beruflichen Anforderungen bei der Erreichung meiner persönlichen Ziele und meiner Entwicklung einschränken.

MI09_03 Heute habe ich generell das Gefühl, dass meine Arbeit meine persönliche Leistung behindert.

MI15: Inwiefern stimmen Sie folgenden Aussagen am heutigen Arbeitstag zu?

Antwortformat: Gar nicht – ein wenig – teilweise – überwiegend – völlig

MI15_01 Schwierigkeiten, die sich heute bei der Arbeit ergeben könnten, sehe ich gelassen entgegen, weil ich meinen Fähigkeiten vertrauen kann.

MI15_02 Was auch immer heute bei der Arbeit passiert, ich werde schon klarkommen.

MI15_03 Wenn heute bei der Arbeit ein Problem auftaucht, kann ich es aus eigener Kraft meistern.

Diary Questionnaire (End of Workday)

(Only the items relevant for this thesis are included.)

Fragebogen bei Arbeitsende

Sehr geehrte*r Teilnehmer*in,

herzlich willkommen zum letzten Fragebogen des heutigen Tages!

Dieser Fragebogen sollte beim Arbeitsende (oder kurz danach) ausgefüllt werden. Bitte antworten Sie auf alle Fragen spontan, ohne groß nachzudenken, und so vollständig wie möglich.

Vielen Dank vorab für Ihre Unterstützung!

AE10: Inwiefern treffen folgende Aussagen auf Ihren heutigen Arbeitstag zu?

Antwortformat: Gar nicht – ein wenig – teilweise – überwiegend – völlig

AE10_02 Heute habe ich die Erledigung von Aufgaben unnötigerweise aufgeschoben, auch wenn sie wichtig waren.

AE10_01 Heute habe ich schwierige Entscheidungen vor mir hergeschoben.

AE10_03 Heute war ich ein*e unverbesserliche*r Zeitverschwender*in („Bummelant*in“).

AE10_04 Heute war ich zwar ein*e Zeitverschwender*in, konnte aber nichts dagegen machen.

AE10_05 Heute hatte ich mir fest vorgenommen, etwas Bestimmtes zu erledigen, habe es dann aber doch schleifen lassen.

AE10_06 Heute bin ich nicht in die Gänge gekommen, obwohl ich genau wusste, wie wichtig es ist, anzufangen.

Declaration on the Use of Artificial intelligence (AI) (German)

Erklärung zur Verwendung von Künstlicher Intelligenz (KI)

Hiermit erkläre ich, dass ich die folgenden KI-Hilfsmittel zur Erstellung meiner Masterarbeit mit dem Titel " Do It Now or Later? How Responsibility, Self-Efficacy and Stressor Attribution Shape Workplace Procrastination" verwendet habe. Ich versichere, dass die Kennzeichnung der verwendeten KI-Hilfsmittel vollständig ist, inkl. Verwendungszweck, Produktname, als auch ggfs. Prompts und Outputs des KI-Hilfsmittels. Ich verantworte die Auswahl und die Übernahme sämtlicher Ergebnisse der von mir verwendeten KI-Hilfsmittel vollumfänglich selbst.

Verwendungszweck	Produktname des KI-Hilfsmittels	Ggfs. Prompt
Hilfestellung bei Übersetzungen, sprachliche und grammatikalische Überprüfung	DeepL, Anthropic PBC Claude 4.0 Opus; Anthropic PBC Claude 4.1 Opus	
Verständnis statistischer Interpretation	OpenAI ChatGPT GPT-4-turbo	
Zusammenfassung von Literatur als Basis für den Literaturteil	Anthropic PBC Claude 4.0 Sonnet	Please condense the information from the provided excerpts into bullet points