

Exploring Psychological Detachment in the Face of Unfinished Tasks

Nidarshana Ganesan

S4324390

Department of Psychology, University of Groningen

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Supervisor: Dr. Oliver Weigelt

Second evaluator: prof. Roxana Bucur

In collaboration with: Natalia Sange, Anne Schröer, Max Günther, Luis Castillo Janschek

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Abstract

Unfinished tasks are a common stressor faced by employees, impacting their recovery experiences. In this study, we specifically look at one such recovery experience - psychological detachment. Following the theories of the Zeigarnik effect and psychological detachment, this study focuses on how unfinished tasks impact an individual's psychological detachment during post-work leisure time. Furthermore, this study contributes and addresses a gap in the current literature by examining the role of stress mindset as a moderator in the relationship between unfinished tasks and psychological detachment. The stress mindset as described by Crum et al. (2013) is looked at as a unidimensional continuum with one end being 'stress is debilitating' and the other end being 'stress is enhancing'. Utilizing a cross-sectional design, data were collected via an online questionnaire from 199 participants who worked an average of 40 hours per week. Consistent with theoretical predictions, results indicated that higher levels of unfinished tasks are associated with lower levels of psychological detachment. Additionally, the stress mindset moderates this relationship; individuals with a 'stress is enhancing' mindset experience better psychological detachment despite high levels of unfinished tasks and vice versa. This study contributes to the literature by highlighting the significance and impact of stress mindset as a moderator in the relationship between unfinished tasks on psychological detachment.

Keywords: unfinished tasks, psychological detachment, stress mindset, recovery

Exploring Psychological Detachment in the Face of Unfinished Tasks

Today, the 21st century is marked by an increase in workloads for employees in corporate organizations, posing significant challenges to mental health and increasing the likelihood of unfinished tasks. By definition, unfinished tasks are tasks that are left incomplete or in a state of unsatisfactory completion at the end of the day (Syrek et al., 2017). The Zeigarnik effect highlights how unfinished tasks trigger intrusive, automatic, and negative thoughts, occurring 90% more frequently than thoughts about completed tasks (Zeigarnik, 1938). Adding to the frequency of these thoughts, various other studies also suggest that unfinished tasks remain active and easily accessible to memory until task completion (Moskowitz, 2002; Förster et al., 2005).

Recent occupational studies have identified unfinished tasks as a significant work-related stressor (Peifer et al., 2019) and these stressors have notable negative effects on employees (Bakker & Demerouti, 2007). Studies suggest that unfinished tasks can disrupt sleep patterns and hinder the replenishment of mental resources during post-work recovery (Syrek & Antoni, 2014). Adequate sleep is vital for effective recovery, and its impairment also correlates strongly with anxiety, depression, and even mortality (Jansson-Fröjmark & Lindblom, 2008; Heslop et al., 2002).

Another dimension of recovery influenced by unfinished tasks is psychological detachment (Sonnentag, 2012). Etzion et al., (1998) describe detachment as an individual's sense of being away or being detached from work routines. Further, Smit (2015) adds that it is the extent to which an individual mentally and physically disengages from work-related tasks after work and during leisure time. Psychological detachment is an important and promising avenue to explore as studies indicate that nearly 72% of workers experience concerns about work-related tasks even after hours,

and 22% report regular worries about work tasks (Gallie et al., 1998). This shows that a large number of individuals find it difficult to disengage from work. Not psychologically detaching from work can lead to chronic and long-term health issues such as fatigue, sleep impairments, and other psychosomatic disorders (Geurts & Sonnentag, 2006). On the other hand, studies show that psychological detachment can positively correlate with a healthier lifestyle and non-work-related experiences such as relaxation and mastery (Sonnentag et al., 2009; Zijlstra et al., 2014). Hence, we can see the importance of psychological detachment in an individual's post-work recovery process and how the presence of unfinished tasks hampers this (Sonnentag & Fritz, 2007).

Unfinished Tasks and Psychological Detachment

Higgins (1996) helps gain a deeper understanding of why thoughts of unfinished tasks persist and make psychological detachment difficult, essentially stating that task completion is driven by two cognitive pathways. Firstly, the 'activation potential' pathway prioritizes unfinished tasks, enhancing their accessibility and aiding completion. Secondly, the 'post-fulfillment inhibition' pathway deactivates completed tasks, reducing their memory accessibility. When a task remains unfinished, the brain continuously accesses thoughts geared toward its completion. While this system aids task fulfillment, it becomes counterproductive under stress and time constraints, leading to a constant focus on unfinished tasks and difficulty in psychologically detaching. This hampers recovery and long-term performance at work (Binnewies, Sonnentag, & Mojza, 2010).

Based on the theories and statements above, this study aims to explore the impact of different levels of unfinished tasks on psychological detachment from work at the end of a workday. Therefore, the primary research question posed is: Do unfinished tasks affect an

individual's ability to psychologically detach from work? To answer this question, we propose the following hypotheses:

Hypothesis 1: Unfinished tasks are negatively related to psychological detachment

Stress Mindset's Role in the Face of Unfinished Tasks

Although the role of unfinished tasks has been studied frequently, research on the boundary conditions or roles that may help moderate the effects of unfinished tasks on psychological detachment is sparse. A particularly compelling and straightforward disposition that may make a difference is the 'stress mindset'.

Stress is the anticipation of encountering challenges in achieving one's goals, it is an evolutionary concept that helps enhance task management (Carver & Connor-Smith, 2010). However, its effects can swing between positive and negative outcomes, largely influenced by individual perceptions (Crum et al., 2013).

Often viewed negatively for its impact on health (Vitetta et al., 2006), stress can severely affect cardiovascular health, immunity, and induce hypertension. Prolonged or elevated stress levels may result in burnout, depression, eating disorders, and substance abuse (Glaser & Kiecolt-Glaser, 2005; Quick et al., 1987; Schneiderman et al., 2005). On the other hand, stress can also positively improve physiological functioning to increase the chance of survival, and in today's world, specifically on the organizational front stress can help increase motivation and initiative-taking which can help in meeting pressing demands at work-life (Crum et al., 2013). Further, the type of stress (negative or positive as outlined above) one experiences is usually a factor of the stress mindset the individual holds.

Stress mindset refers to the attitudes and expectations one has about experiencing stress, regardless of whether they are currently experiencing it. The mindset involves the evaluation of the nature of stress and it influences how individuals respond and cope with stressors. Research suggests that an individual's stress mindset can moderate the intensity of physiological and psychological responses to the stress being experienced. According to Crum et al. (2013), stress mindsets are connected to various motivational and physiological processes, shaping the overall experience of stress. Further, Crum et al. (2013) identify two types of stress mindsets, the 'stress is enhancing mindset' and the 'stress is debilitating mindset'. According to Crum et al. (2013), these two mindsets are not distinct constructs but endpoints of a continuum. Viewing stress mindsets as a unidimensional continuum with 'stress is debilitating' and 'stress is enhancing' as extreme points helps us understand their impact more comprehensively. This continuum framework implies that individuals can possess varying degrees of these mindsets rather than completely adhering to one extreme or the other.

This study will specifically examine the impact of stress mindsets on the relationship between unfinished tasks and psychological detachment.

Stress Mindset Moderates the Relationship between Unfinished Tasks and Psychological Detachment

On the continuum, a more 'stress is enhancing' mindset helps individuals come to terms with the stress they experience and use it to achieve their tasks (Crum et al., 2013). Those with this mindset primarily believe that stress can lead to beneficial outcomes, allowing them to achieve an optimal level of arousal necessary to complete tasks effectively. This perspective often propels individuals to take proactive steps in meeting demanding objectives (Fay & Sonnentag, 2002). It

also allows for adopting a perspective that enables personal growth, fostering resilience, self-awareness, and stronger interpersonal bonds—a phenomenon termed 'stress-related growth' (Park & Helgeson, 2006; Tedeschi & Calhoun, 2004).

Conversely, a 'stress is debilitating' mindset leads individuals to deploy mechanisms, behaviors, and stress management strategies aimed at avoiding adverse effects (Crum et al., 2013). These avoidance or denial strategies can lead to either hypoactivation (decreased physical and behavioral activity) or hyperactivation (increased physical and behavioral activity) due to emotional suppression and ruminative thinking. Neither state (hypo- or hyperactivation) is useful for effectively achieving tasks.

Hence, the two contrasting ends of the mindset, 'stress is debilitating' and 'stress is enhancing', illustrate how individuals respond to stressors. The former breeds rumination and difficulty in psychological detachment from work, while the latter fosters problem-solving and facilitates psychological detachment (Crum et al., 2013; Weigelt et al., 2019).

Therefore, based on the theory outlined above, this study will specifically examine the impact of stress mindsets on the relationship between unfinished tasks and psychological detachment. Further, we hypothesize that an individual's stress mindset moderates the relationship between unfinished tasks and psychological detachment.

Hypothesis 2: The stress mindset moderates (alleviates) the relationship between unfinished tasks and psychological detachment.

Methods

Procedure

To test our hypothesis, we incorporated a questionnaire that used validated scales to investigate the main effect between unfinished tasks and psychological detachment. My study was part of a larger data collection effort involving a group of five bachelor's students. This study will focus on a specific subset of those variables, specifically, unfinished tasks (predictor variable), psychological detachment (criterion variable), and stress mindset (moderating variable). The study was exempt from the formal examination of the Ethics Committee of Psychology within the Faculty of Behavioral and Social Sciences at the University of Groningen.

We recruited participants via social networking platforms such as Instagram and WhatsApp using a snowball sampling technique to maximize outreach. Before beginning the survey, participants were presented with a research information page detailing the study, followed by an informed consent form, which they had to sign to consent to the use of their data and to inform them of their rights as participants such as participation was optional, and participants could stop the survey at any time.

The survey, conducted individually, took approximately 10 minutes to complete. Participants had a two-week window to complete the survey. The survey, information page, informed consent, and recruitment messages were available in both English and German, allowing participants to choose the language they were most comfortable with. No rewards or compensation were provided for participation, and no deception or debriefing procedures were deployed.

Participants

In total, we had 268 responses out of which we excluded 69 of them. We excluded 68 responses because of incomplete data and one of them because they did not consent. Out of the 68, we excluded 19 of the participants because they did not answer any questions, 11 of them gave consent but did not fill out the questionnaire further, 17 stopped the survey after consenting and filling in demographic details, and 21 were removed because they forgot to fill at least one item of our core variables of interest.

The sample of participants was very diverse, consisting of different nationalities, most being from Germany ($n = 107$), Austria ($n = 24$), and Spain ($n = 22$) (see Figure 1, Appendix B for more details on participant's nationalities). Most participants aged between 55 to 64 years old (32.2%). The sample consisted of 40.2% males ($n=80$), 59.3% females ($n = 118$), and one participant identified as non-binary/other. The occupations were diverse, with most of the participants working in healthcare, education, and legal positions. Data suggested that most participants work around 40 hours a week with a mean of 39.6 hours ($SD = 12.6$).

Measures

Unfinished Tasks

Unfinished tasks were measured using the scale developed by Syrek et al. (2013), which assesses whether respondents had left work tasks incomplete before transitioning to leisure time. The scale consists of six items (e.g., "I have not finished important tasks that I had planned to do") with responses given on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale demonstrated high reliability, with a Cronbach's alpha of .92.

Psychological Detachment

Psychological detachment was measured using 5 items from the Work Related Rumination Questionnaire (WRRQ) which measured how easily workers are able to switch off and leave work behind (Cropley et al. 2011). Although the item used by Sonnentag & Fritz (2007) to measure psychological detachment as a facet of recovery experiences is a more frequent choice, the items by Cropley et al. (2011) are more attractive when it comes to contrasting psychological detachment with work-related cognitions (Pauli et al., 2023). Studies (Pauli et al., 2023) also suggest that there is a good convergent validity between the two scales with a high positive relation ($r = 0.82, p < .001$). The questions were converted into first-person statements (e.g., “I feel unable to switch off from work.”). Responses were given using a five-point Likert scale (1 = very seldom or never, 2 = seldom, 3 = sometimes, 4 = often, 5 = very often or always). Additionally, item 1 of this scale was reverse-coded.

Stress Mindset

Stress mindset was measured using the scale developed by Crum et al. (2013). This scale assesses whether an individual has a ‘stress is enhancing’ mindset or a ‘stress is debilitating’ mindset. It consists of eight items (e.g., “Experiencing stress enhances my performance and productivity”) with responses given on a five-point Likert scale ranging from 0 (strongly disagree) to 4 (strongly agree). The scale demonstrated good reliability, with a Cronbach’s alpha of .86.

Analytical Strategy

All analyses for this study were conducted using SPSS. First, as part of the preliminary analysis, we ran reliability tests on all the scales used in the questionnaire to ensure they demonstrated adequate reliability scores above 0.7. Next, we obtained descriptive statistics,

including mean scores and standard deviations, to understand the average scores across all participants.

In the main analysis, we began by running correlation tests on the variables to identify initial indications of relationships between them. This helped us understand the extent to which the predictor and criterion variables were correlated and whether any relationships were present. Subsequently, we performed multiple regression analyses to assess the overall fit of the model and determine whether the predictor variable ‘unfinished tasks’ contributed to explaining the variability in the criterion variable ‘psychological detachment’. Following this, we conducted a moderation analysis to examine the effect of the moderating variable ‘stress mindset’ present on the relationship between ‘unfinished tasks’ and ‘psychological detachment’. The moderation analysis was done by examining the interaction effects, which involved including an interaction term in the regression model (the product of ‘unfinished tasks’ and ‘stress mindset’). This allowed us to assess the strength or direction of the relationship between ‘unfinished tasks’ and ‘psychological detachment’ depending on the level of ‘stress mindset’.

Since multiple regression analyses were performed, we also checked for any assumption violations: linearity and homoscedasticity using residual plots, normality using Q-Q plots, and multicollinearity using the variance inflation factor (VIF) for all variables.

Analysis

Preliminary Analysis

To test the internal consistency reliability of the scale we used Cronbach’s alpha coefficients. The reliabilities of the scales were above 0.8 ($\alpha = .87$ for unfinished tasks, $\alpha = .0.83$

for psychological detachment, and $\alpha = .83$ for stress mindset; see Table 2, Appendix A). For the scale of stress mindset and psychological detachment, we had to reverse code certain items before testing for reliability. Additionally, for the psychological detachment scale, we removed the fifth item 'I leave work issues behind when I leave work' as it had a low item-total correlation ($r = -.014$), and removing this item considerably increased the reliability of the scale (from $r = 0.7$ to $r = 0.83$), indicating better internal consistency without this item. In conclusion, all of the scales used in this study are reliable.

The descriptive analysis of the data suggested that the participants had lesser degrees of unfinished tasks in a working week ($M = 2.2$, $SD = .77$, see Table 1) and experienced a relatively moderate level of detachment from work in their leisure time ($M = 3.44$, $SD = .88$, see Table 1). Regarding the participants' stress mindset, most had a relatively higher level of stress mindset ($M = 2.5$, $SD = .64$; see Table 1). Since the theory views stress mindset as a unidimensional continuum, a higher score on the stress mindset scale indicates a more 'stress is enhancing' mindset. Therefore, we can conclude that the participants in this study generally had a more 'stress is enhancing' mindset.

Table 1

Descriptives

	Mean	Std. Deviation	N
Unfinished Tasks	2.20	0.76	199
Stress Mindset	2.50	0.64	199
Psychological Detachment	3.44	0.88	199

Next, correlation analyses between the criterion variable ‘psychological detachment’ and predictor ‘unfinished tasks’ ($r = -.39, p < .001$, see Table 2) suggested a moderate negative correlation. The correlations between the moderator ‘stress mindset’ and criterion variable ‘psychological detachment’ ($r = -.104, p = .145$, see Table 2) suggested a non-significant correlation. The correlations between the moderator ‘stress mindset’ and predictor variable ‘unfinished tasks’ ($r = -.01, p = .884$, see Table 2) again suggested a non-significant relationship. In conclusion, we can say that a stress mindset is not correlated with either of the variables.

Table 2

Correlations

		Unfinished Tasks	Psychological Detachment	Stress Mindset
Unfinished Tasks	Correlation	1	-.393	-.010
	Sig. (2-tailed)		<0.001	0.884
Psychological Detachment	Correlation	-.393	1	-.104
	Sig. (2-tailed)	<.001		.145
Stress Mindset	Correlation	-.010	-.104	1
	Sig. (2-tailed)	.884	.145	

Note. Sample size (n) = 199; Correlation type = Pearson Correlation

Additionally, we also checked for assumptions made for regression analysis. To check for linearity and homoscedasticity we had a look at the scatterplots of the residuals (Figures 3 and 4, Appendix A) and the residuals were randomly scattered around zero. Therefore, we can conclude that we meet the assumptions for linearity and homoscedasticity. Next, to check for linearity, we saw the P-P plot (Figures 1 and 2, Appendix A), and no points deviated drastically, hence assuming normality. To check for multicollinearity, we checked the values of the variance inflation factor, all of the values as seen in Table 3 here were under 4 hence no multicollinearity was present.

Main Analysis

Hypothesis 1 states that there is a negative relationship between unfinished tasks and psychological detachment. The results from the first regression analysis support this hypothesis with $\beta = -0.452$, $SE = 0.075$, and $p < 0.001$, as seen in Table 3. Although the relationship is relatively weak, it is statistically significant at significance levels $p < 0.05$. Hence, these results suggest that higher levels of unfinished tasks lead to lower levels of psychological detachment. The R^2 value of the model is 0.155 (seen in Table 3, Appendix A), indicating that 15.5% of the variance in psychological detachment can be explained by unfinished tasks. This suggests a relatively poor model fit, as 84.5% of the variability in psychological detachment remains unexplained.

Table 3

	Unstandardized B	Coefficients Std.Error	t	Sig	VIF
Constant	4.441	0.175	25.328	<0.001	
Unfinished tasks	-0.452	0.075	-5.003	<0.001	1.000

In the next step of the analysis, to understand the individual main effects of the predictor variable ‘unfinished tasks’ (β_1) and the moderator ‘stress mindset’ (β_2) on the criterion variable ‘psychological detachment’, a second regression analysis was run. The results suggested $\beta_1 = -0.453$, $SE = 0.08$, and $p < 0.001$, and $\beta_2 = -0.148$, $SE = 0.09$, and $p = 0.10$ as seen in Table 4. As seen in the results of this regression, the coefficients and significance of unfinished tasks have not changed significantly, and unfinished tasks still remain significant. On the other hand, the coefficient of stress mindset may suggest a weak negative effect, but it is not significant enough to make any conclusions. The R^2 value of this model is 0.166 (as seen in Table 4, appendix A), suggesting that 16.6% of the variance in psychological detachment can be explained by the combination of unfinished tasks and stress mindset. Overall, it suggests that stress mindset contributes 1.1% explanation of variance in psychological detachment.

Table 4

	Unstandardized B	Coefficients Std.Error	t	Sig	VIF
Constant	4.814	0.285	16.863	<0.001	
Unfinished tasks	-0.453	0.075	-6.046	<0.001	1.000
Stress Mindset	-0.148	0.089	-1.651	0.100	1.000

For the second hypothesis, we stated that stress mindset moderates the relationship between unfinished tasks and psychological detachment. The results from moderation analysis support this

hypothesis, with $\beta_1 = -0.439$, $SE = 0.074$, and $p < 0.001$; $\beta_2 = -0.139$, $SE = 0.088$, and $p = 0.117$; $\beta_3 = 0.137$, $SE = 0.057$, and $p = 0.016$ (interaction term) as seen in Table 5. The p-value for the interaction term indicates statistical significance at significance levels $p < 0.05$, indicating that stress mindset does have an effect on the relationship between unfinished tasks and psychological detachment.

The R^2 value of the interaction model is 0.191 (seen in Table 5, Appendix A), suggesting that 19.1% of the variance in psychological detachment can be explained by the interaction between stress mindset and unfinished tasks. Although this represents a 2.5% increase in model fit (compared to the regression analysis with $R^2 = 0.166$, with unfinished tasks and stress mindset as predictors), it is still a relatively small effect. Additionally, we must consider that adding predictors typically increases the R^2 value, as more predictors generally account for more variance.

Table 5

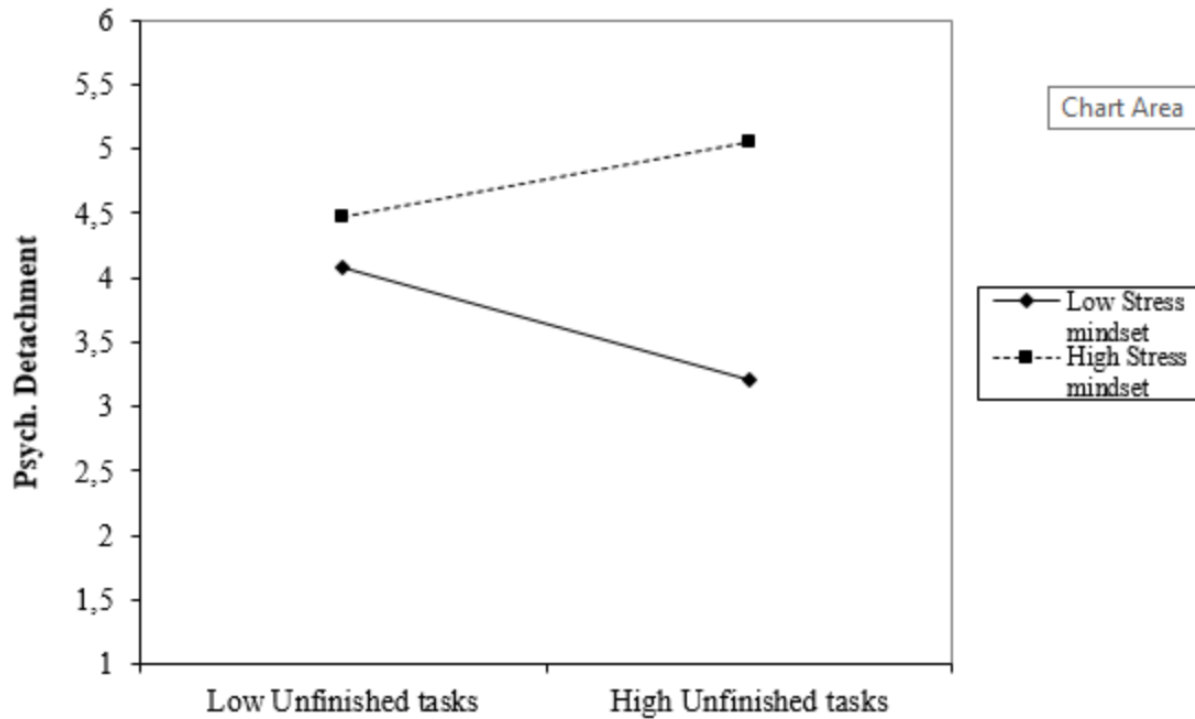
	Unstandardized B	Coefficients Std.Error	t	Sig	VIF
Constant	4.765	0.283	16.852	<0.001	
Unfinished tasks	-0.439	0.074	-5.922	<0.001	1.006
Stress Mindset	-0.139	0.088	-1.574	0.117	1.002
Interaction term	0.137	0.057	2.426	0.016	1.007

Below, Figure 1 illustrates the interaction effect between unfinished tasks and stress mindset on psychological detachment. The x-axis represents the levels of unfinished tasks, while

the y-axis indicates the psychological detachment scores. The two lines represent different levels of stress mindset, the dotted line named 'high-stress mindset' in Figure 1 represents the 'stress is enhancing' mindset, and the straight line named 'low-stress mindset' in Figure 1 represents the 'stress is debilitating' mindset. As we can clearly see from Figure 1 below, having a high number of unfinished tasks but with a more 'stress is debilitating' (indicated by the straight line) mindset results in lower psychological detachment, and at the same time, having a high number of unfinished tasks but with a more 'stress is enhancing' mindset leads to higher levels of psychological detachment.

Figure 1

Interaction plot for Psychological Detachment



Discussion

The purpose of this study was to understand the relationship between the unfinished tasks that employees are faced with at work and how it affects their psychological detachment. As mentioned previously, it was important to investigate this relationship because a lack of psychological detachment has serious implications for an individual's mental and physical health (Geurts & Sonnentag, 2006; Sonnentag et al., 2009; Zijlstra et al., 2014).

We first hypothesized (Hypothesis 1) that unfinished tasks were negatively related to psychological detachment, meaning that the more the unfinished tasks an individual has, the harder they will find it to psychologically detach from work. This hypothesis was supported by the results with both these constructs (psychological detachment and unfinished tasks) showing a moderate negative correlation. These results indicated that the more unfinished tasks an individual has, the harder they find it to psychologically detach from work post-work during leisure time.

For the second hypothesis, we hypothesized that stress mindset moderates (alleviates) the relationship between unfinished tasks and psychological detachment. This hypothesis was supported by significant results. Specifically, the data indicated that a more 'stress is enhancing' mindset can attenuate the negative relationship between unfinished tasks and psychological detachment. So, for instance using the results we can say that individuals with a more 'stress is enhancing' mindset will experience more psychological detachment even in the face of a higher number of unfinished tasks, and ultimately have a better post-work recovery experience as compared to their counterparts with a 'stress is debilitating' mindset.

Further, the results provide insights into the relationship between stress mindset, unfinished tasks, and psychological detachment. Initially, as observed in Table 4, stress mindset by itself does

not directly predict psychological detachment. Instead, it only significantly influences the impact of unfinished tasks on psychological detachment when it interacts with unfinished tasks.

Subsequent analysis aimed at understanding the role of stress mindset on psychological detachment further supports this finding. The results showed no correlation between stress mindset and unfinished tasks, and, stress mindset and psychological detachment. Regression analysis revealed a weak negative relationship between stress mindset and psychological detachment ($\beta_2 = -0.148$, $SE = 0.09$, $p = 0.10$), which was not statistically significant. Therefore, while stress mindset alone does not significantly impact psychological detachment, it plays a crucial role in moderating the relationship between unfinished tasks and psychological detachment.

Theoretical Implications

These findings have several theoretical implications. Sonnentag & Fritz (2015) suggest that there is limited research on how job stressors impact psychological detachment and recovery experiences. This study contributes to this emerging pool of research (Syrek et al., 2017; Smit, 2015) by examining a specific job stressor—unfinished tasks—and its effect on an individual's psychological detachment from work during leisure time post-work. The results suggesting lower levels of psychological detachment in the face of higher levels of unfinished tasks provide further support to the framework of the Zeigarnik effect, suggesting that unfinished tasks lead to intrusive and automatic thoughts about work. Additionally, the findings align with studies by Moskowitz (2002), Förster et al. (2005), and Higgins (1996), which indicate that unfinished tasks remain active in memory until completion. The study also provides further evidence and support to Sonnentag & Fritz (2007), by suggesting that the presence of unfinished tasks hampers recovery processes such as psychological detachment.

Furthermore, our study addresses a gap in the literature by exploring stress mindset as a moderating factor in the relationship between unfinished tasks and psychological detachment. Prior research has suggested potential links between these variables, but to our knowledge, no studies have explicitly evaluated the interaction between unfinished tasks and stress mindset on psychological detachment. Our findings provide significant evidence for this moderation effect, indicating that individual differences in stress mindset are crucial for understanding and predicting the impact of unfinished tasks on psychological detachment.

Interestingly, our results also showed that stress mindset independently did not affect psychological detachment. This suggests a more complex relationship between stress mindset and psychological detachment than previously understood. One possible explanation is that a 'stress is enhancing' or 'stress is debilitating' mindset is a response to stressors; therefore, in the absence of stressors (i.e., here unfinished tasks), the type of stress mindset an individual holds may not influence their psychological detachment levels. This complexity highlights the need for further theoretical exploration of how a stress mindset operates within the context of different stressors and recovery processes.

Practical Implications

The findings from this study regarding the impact of unfinished tasks on psychological detachment can have practical implications for employers and employees in organizations. Specifically, since the results indicate that increased levels of unfinished tasks can lead to lower levels of psychological detachment, which can be detrimental to individual well-being in the long term, it helps to highlight the importance of effective task management for employees and employers. For employees, the study can help them understand the importance of completing tasks

and managing workloads effectively to prevent the spillover of thoughts about unfinished tasks into off-job time, thereby enhancing their ability to detach psychologically from work. Employers can support this by implementing workshops and training sessions focused on efficient time management, setting realistic goals, and prioritizing tasks. These interventions and methods can assist individuals in completing their tasks by the end of the day, preventing them from spilling over into off-job time. This helps mitigate the impact of unfinished tasks on their ability to psychologically detach from work, ultimately supporting their post-work recovery process.

Based on the findings of this study, it is evident that stress mindset significantly influences an individual's experience of psychological detachment in the presence of unfinished tasks. Employers and employees can benefit from incorporating interventions and strategies that promote a 'stress is enhancing' mindset. Research by Crum et al. (2013) indicates that stress mindset is malleable, and Crum et al. (2023) propose a metacognitive approach to shift this mindset. This approach involves providing individuals with information about both 'stress is enhancing' and 'stress is debilitating' mindsets, explaining how each mindset affects behavior and physiological responses, and following a three-step process to actively adopt a 'stress is enhancing' mindset. Implementing this intervention can help individuals respond more proactively to unfinished tasks, ultimately improving psychological detachment from work.

Furthermore, since our results suggest that stress mindset affects psychological detachment only in the presence of unfinished tasks, therefore, interventions aimed at adopting a 'stress is enhancing' mindset can be especially beneficial for individuals with higher workloads and a larger number of unfinished tasks.

Strengths and Limitations:

The study yielded significant and interesting results which help with understanding the effects of unfinished tasks and psychological detachment but the study also has certain limitations that can be improved upon for upcoming research in this area.

One of the limitations of this study is its generalizability. The sampling techniques used, such as snowball sampling via social networking sites, introduces potential sampling biases. While this method helps reach a targeted audience, it may not represent the general population accurately. Participants volunteered to take part, potentially only attracting individuals particularly interested in the topic, which could skew the results. Additionally, recruiting via social media excludes those who may not be technologically savvy, further limiting the generalizability of the results to a larger population.

Additionally, another dimension affecting generalizability is the age of the participants. Most respondents were between 45-54 and 55-64 years old. This group is largely in the second half of their careers with possibly extensive work experience and potentially more efficient time management strategies. This limits the applicability of the results to younger age groups who are just starting their careers. This age bracket may not accurately reflect the experiences and challenges faced by younger workers, thus reducing the overall validity and generalizability of the study.

The study benefitted from the use of validated scales, which is a strength of the study. However, it was a self-report questionnaire which introduces the possibility of common method variance as this inflates bivariate correlations among the variables which is a limitation. While this could be a limitation of the study, the results show us that there is an interaction effect of unfinished

tasks and stress mind on psychological detachment, and when this is the case, Siemsen et al., (2009) suggest that finding an interaction effect despite the effect of common method variance in the dataset is a strong evidence that interaction effect exists and hence reduces the influence of the limitation.

The study was a cross-sectional design, while this design has its advantages such as ease in data collection and understanding the current state of variables, it also poses various limitations as a cross-sectional study can help identify associations between variables but it does not help establish causality. Another limitation that comes along with a cross-sectional study is the absence of longitudinal data, especially with variables such as unfinished tasks, which pile up and fluctuate over different periods of time, it would be more interesting to see its effect on an individual's psychological detachment over a longer period of time.

Another strength of the study is its good ecological validity, as the data was collected via an online survey. This means participants were likely in environments that were typical for them, enhancing the generalizability of the findings to real-life situations.

Future Avenues for Research

This study specifically focused on one work-related stressor, unfinished tasks, and its effect on psychological detachment. Future research could also examine other stressors, such as heavy workloads, and job insecurity, and their effects on recovery experiences like psychological detachment. These stressors are particularly relevant because they have negative valence and may be difficult to disengage from until the issues are resolved, making it relevant to study them in the context of psychological detachment.

Another avenue for research could focus on the effects of unfinished tasks on other recovery experiences, such as sleep, with stress mindset as a moderator variable since the research with stress mindset as a moderator in this context is so sparse. Sleep is a crucial part of recovery, and work-related stress has been linked to sleep impairment (Åkerstedt, 2006). Investigating how stress mindset, which influences an individual's physiological arousal in response to stress from unfinished tasks, could potentially affect sleep, would be an interesting and valuable research direction.

Building upon this, another avenue of research could investigate the effects of a lack of psychological detachment during off-job time on work efficiency. As theory suggests, low levels of psychological detachment lead to a lack of replenishment of resources, potentially affecting an individual's efficiency at work over time (Binnewies, Sonnentag, & Mojza, 2010). Research in this area could yield valuable insights, motivating employers and employees to prioritize task management and maintain a healthier work-life balance.

Conclusion

This study explored the relationships between unfinished tasks, stress mindset, and psychological detachment. Our findings suggest that more unfinished tasks lead to lower psychological detachment. Additionally, stress mindset moderated the relationship between unfinished tasks and psychological detachment. This study provided further support that a 'stress is enhancing' mindset can mitigate the negative impact of unfinished tasks on psychological detachment. In summary, addressing unfinished tasks and fostering a 'stress is enhancing' mindset is crucial for increasing psychological detachment and overall employee well-being.

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Appendix A

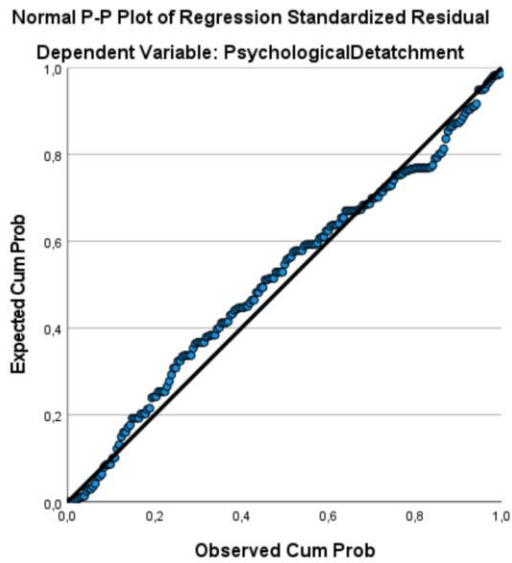


Figure 1. P-P plot to check for normality in hypothesis 1 - Regression analysis between Unfinished tasks and Psychological Detachment

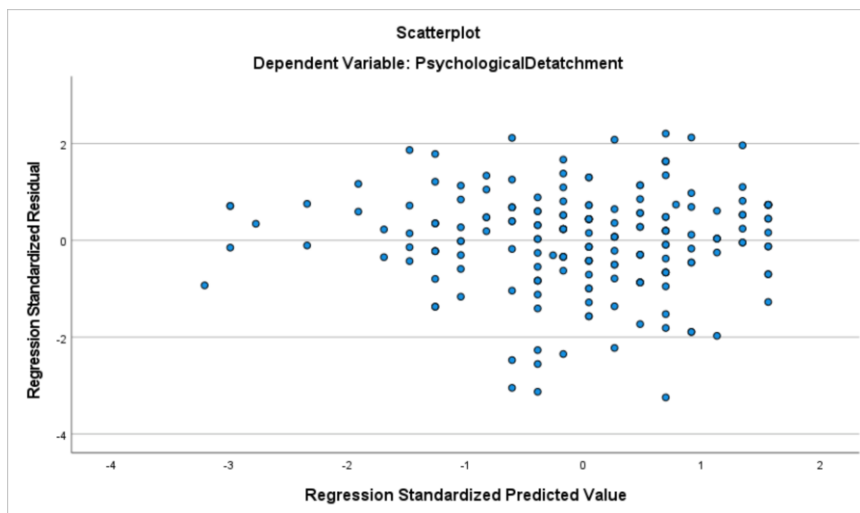


Figure 2. Scatterplot of residuals to test for linearity and homoscedasticity for hypothesis 1

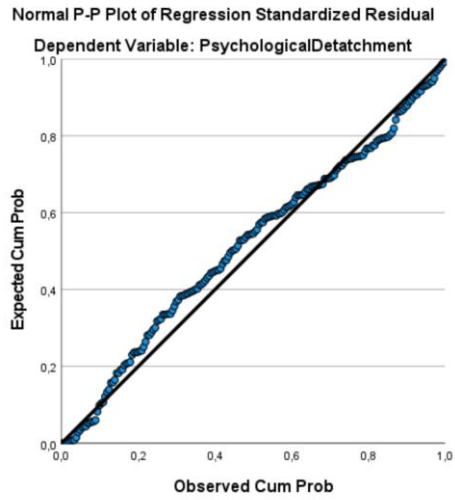


Figure 3. P-P plot to check for normality in hypothesis 2 - moderation analysis

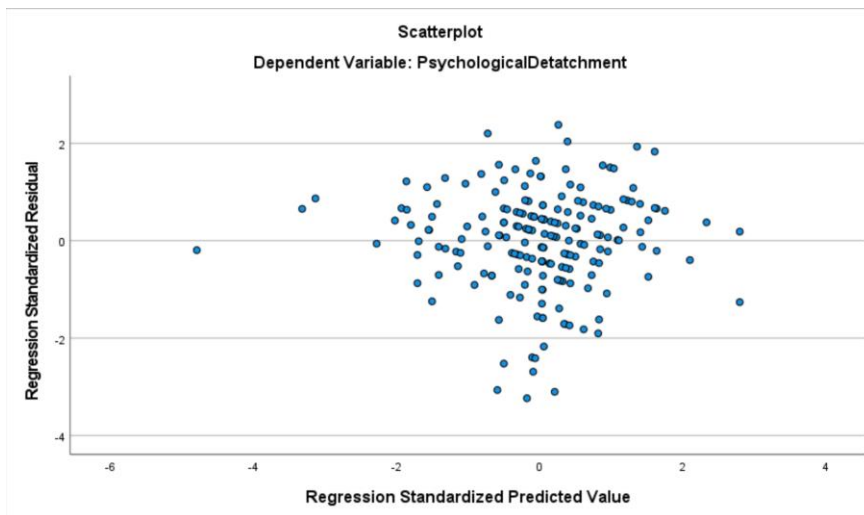


Figure 4. Scatterplot of residuals to test for linearity and homoscedasticity for hypothesis 2

Table 1*Descriptives*

	Mean	Std. Deviation	N
Unfinished Tasks	2.20	0.76	199
Stress Mindset	2.50	0.64	199
Psychological Detachment	3.44	0.88	199

Table 2*Composite reliabilities of scales*

	Reliabilities
Unfinished Tasks	0.87
Stress Mindset	0.83
Psychological Detachment	0.83

Table 3. Model Summary Regression Analysis - Hypothesis 1

Model	R	R ²	Adjusted R ²	Std Error of Estimates	R square change	F change	Sig. F change
1	0.393	0.155	0.150	0.81	0.155	36.034	<0.001

Table 4. Model summary

Model	R	R ²	Adjusted R ²	Std Error of Estimates	R square change	F change	Sig. F change
2	0.408	0.166	0.158	0.81	0.166	19.537	<0.001

Table 5. Model summary Moderation Analysis - Hypothesis 2

Model	R	R ²	Adjusted R ²	Std Error of Estimates	R square change	F change	Sig. F change
2	0.437	0.1691	0.178	0.80	0.191	15.311	<0.001

Appendix B

Figure 1. Nationality demographics

What is your nationality?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Austria	24	12,1	12,1	12,1
	Belgium	9	4,5	4,5	16,7
	Bulgaria	1	,5	,5	17,2
	Croatia	1	,5	,5	17,7
	Denmark	1	,5	,5	18,2
	Estonia	3	1,5	1,5	19,7
	Finland	1	,5	,5	20,2
	France	3	1,5	1,5	21,7
	Germany	107	53,8	54,0	75,8
	Greece	2	1,0	1,0	76,8
	Hungary	1	,5	,5	77,3
	Italy	3	1,5	1,5	78,8
	Latvia	1	,5	,5	79,3
	Lithuania	1	,5	,5	79,8
	Netherlands	2	1,0	1,0	80,8
	Poland	7	3,5	3,5	84,3
	Portugal	1	,5	,5	84,8
	Romania	1	,5	,5	85,4
	Russia	1	,5	,5	85,9
	Spain	22	11,1	11,1	97,0
Switzerland	2	1,0	1,0	98,0	
United Kingdom	1	,5	,5	98,5	
United States	3	1,5	1,5	100,0	
	Total	198	99,5	100,0	
Missing	System	1	,5		
	Total	199	100,0		