Mental Overtime – Do Leaders' Expectations Intensify the Link Between Unfinished Tasks and Work-Related Rumination During Off-Job Time?

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Abstract

In today's work environment, unfinished tasks increasingly spill over into employees' personal time, triggering recurrent, work-related thoughts that hinder the ability to detach from work. This study aims to replicate the significant correlations between unfinished tasks and two facets of work-related rumination: affective rumination and problem-solving. It will further investigate whether perceived performance expectations from leaders moderate these relationships between unfinished tasks and the two facets of work-related rumination. We conducted a cross-sectional survey with a sample size of n = 98 from various countries. Regression analysis was performed with the PROCESS macro in SPSS. The study's findings indicate that unfinished tasks are significantly linked to affective rumination but not to problem-solving pondering. No moderating effect of performance expectations on unfinished tasks and the two facets of work-related rumination (affective rumination and problem-solving pondering) was found. Contrary to past research, our study did not replicate the moderating role of performance expectations on work-related rumination. These findings highlight the complexity of the broad construct of work-related rumination and underscore the need for a more nuanced assessment of possible moderators on the relationship between unfinished tasks and work-related rumination in future research.

Keywords: Affective rumination, performance expectations, problem-solving pondering, unfinished tasks, work-related rumination

Mental Overtime – Do Leaders' Expectations Intensify the Link Between Unfinished Tasks and Work-Related Rumination During Off-Job Time?

Life seems to be speeding in today´s fast-paced society (Rosa, 2010). This acceleration is observable in our daily lives and manifests itself in the workplace. Employees face a high level of work demands these days, where high-performance work has been shown to have an impact on employees' well-being and health. Work intensification mediates this link (Ogbonnaya et al., 2016). As the pace and intensity of tasks increase, employees often find themselves with a growing number of unfinished tasks at the end of the day. It might seem easy to "pick up where you left off"; however, research suggests that unfinished tasks do not stay at work, they follow employees' home, occupy their thoughts and make it hard to mentally switch off (Syrek & Antoni, 2014; Syrek et al., 2017; Weigelt et al., 2018). This phenomenon called work-related rumination, a state where employees think about work-related matters during leisure time, can impair the ability to disconnect from work during leisure time. The construct of work-related rumination encompasses several perspectives on how individuals think about work during their free time (Weigelt et al., 2023). Therefore, it can be conceptualised in different facets that still have unique contributions. Among other things, two major forms of work-related rumination that have been linked to unfinished tasks are problem-solving pondering and affective rumination (Syrek et al., 2017). Investigating how the job-related stressor of unfinished tasks contributes to work-related rumination is crucial for understanding its range of psychological effects on the mind and, consequently, to help address employee well-being. Furthermore, identifying other work-related factors that may influence the association between unfinished tasks and work-related rumination can provide a deeper understanding of the variables that affect this relationship. So, what factors could make an employee more prone to ruminate? A study examining unfinished tasks and work-related rumination found that performance expectations amplify the link between affective rumination and unfinished tasks (Syrek & Antoni, 2014).

Building on this, this study aims to replicate the association between unfinished tasks and the two distinct facets of work-related rumination, namely problem-solving pondering and affective rumination. Additionally, the study seeks to replicate the moderating effect of performance expectations on the relationship between unfinished tasks and work-related rumination (Syrek & Antoni, 2014). We aim to extend the evidence by narrowing down the outcome variable, work-related rumination, into two facets: affective rumination and problem-solving pondering, as they have been shown to be distinct forms of work-related rumination (Syrek et al., 2017; Weigelt et al., 2019). This distinction is especially relevant when analysing how performance expectations moderate the link between unfinished tasks and each facet. This aims to contribute to the robustness of previous research by clarifying whether performance expectations uniformly heighten different facets of rumination or whether they differentially affect problem-solving pondering and affective rumination. Understanding the dynamics of how performance expectations serve as a leverage point to fuel work-related rumination is crucial to understanding how we can reshape the boundaries between work and personal life, making it easier to provide employees with the opportunity to recover from work.

Unfinished Tasks and Rumination

Unfinished tasks, tasks which an "employee aimed to finish (or make certain progress) but which were left undone (or left in an unsatisfactory state)" (Syrek et al., 2017), have been repeatedly linked to work-related rumination. There is empirical evidence that unfinished tasks are associated with a lack of psychological detachment (Smit, 2016; Weigelt & Syrek, 2017), problem-solving pondering, and affective rumination (Syrek et al., 2017).

Several theoretical frameworks help to explain why unfinished tasks create a strong urge to complete them. One phenomenon contributing to this understanding is the Zeigarnik effect (Zeigarnik, 1927, 1938), which refers to the tendency for incomplete tasks to remain mentally active in our minds, causing psychological tension until the task is completed.

Control Theory (Carver & Scheier, 1982) adds to understanding the feeling of needing to reach a specific goal. According to this framework, individuals value making progress towards meaningful goals. Conversely, if they perceive insufficient progress, it can trigger negative affect in the mind (Gabriel et al., 2011). Together, these theoretical implications help to understand why unfinished tasks lead to persistent strain; they represent unresolved goals that drive ongoing mental engagement in employees. These mental processes manifest as work-related rumination during off-job time, driven by the discrepancy between an employee´s current stated goal and an intended goal. The mere existence of the discrepancy is what increases the likelihood of triggering rumination.

Furthermore, it is essential to examine the different forms of work-related rumination, as research has found that there are both negative and more optimistic ways to think about work (Jimenez et al., 2021). Past research has shown that rumination is not only about having intrusive negative thoughts about work (affective rumination) but can also take a constructive form, such as problem-solving (Cropley & Zijlstra, 2011; Martin & Tesser, 1996).

Facets of Work-Related Rumination

Weigelt et al. (2023), based on the definition of rumination by Martin and Tesser (1996), proposed the term "*work-related rumination*." This is defined as the tendency to repeatedly think about work issues outside working hours (e.g., breaks, weekends, etc.) when no work-related environmental demands are present. However, not all work-related rumination is necessarily negative, which justifies the need to examine two distinct types of rumination separately.

Furthermore*, affective rumination* involves a negative emotional process characterised by intrusive, pervasive thoughts that carry a negative affect (Cropley & Zijlstra, 2011). This form of rumination has been shown to be a robust predictor of sleep impairment (Syrek et al., 2017) and exhibits further significant correlations with fatigue, burnout, as well as general impairment of psychological detachment (Weigelt et al., 2023; Weigelt et al., 2019). Jimenez

et al. (2021) found that negative work-related thoughts (NWRT), which are part of affective ruminating, function as a cognitive resource-draining response when thinking about job stressors and are negatively associated with psychological detachment. Consistent with this, affective rumination has also been identified as a predictor of chronic and acute work-related fatigue, with sleep quality partially mediating this effect (Querstret & Cropley, 2012). Consequently, affective rumination is a facet of work-related rumination that represents an emotionally exhausting pattern of thinking about work, impairs recovery, and undermines well-being.

On the contrary, work-related rumination can also be more positive or neutral, as employees may enjoy engaging with work-related issues. This type, referred to as *problem-solving pondering*, involves reflecting on work-related issues from new perspectives and developing creative solutions to solve problems without a negative valence (Cropley & Zijlstra, 2011; Cropley, 2015, p. 47). It was found to be a strong predictor of work engagement and learning processes, hence influencing various facets of employee well-being (Weigelt et al., 2019). Generally, it is a more optimistic way of ruminating about work, as it involves solving issues and problem-solving. Still, it remains distinct from positive work reflection (Weigelt et al., 2019). Unlike affective rumination, problem-solving pondering does not explain why unfinished tasks at the end of the day lead to poorer sleep on the weekend. High levels of problem-solving pondering even buffered the negative impact of affective rumination on sleep (Syrek et al., 2019). In contrast to affective rumination, problem-solving pondering has been associated with decreased levels of both chronic and acute work-related fatigue, with sleep quality partially mediating this relationship (Querstret & Cropley, 2012). Problem-solving pondering remains a form of work-related rumination and cannot be categorised as “positive” since it still hinders detachment from work. However, these findings suggest that it differs from affective rumination in the sense that it may help mitigate harmful effects, potentially by offering a sense of control through fostering solution-focused thinking.

Both facets of work-related rumination have been linked to unfinished tasks in past studies. This study aims to replicate these findings to enhance robustness. Therefore, we propose the following hypothesis:

Hypothesis 1: There is a positive correlation between unfinished tasks and affective rumination.

Hypothesis 2: There is a positive correlation between unfinished tasks and problem-solving pondering.

Moderation of Leaders´ Performance Expectations

Employees' reactions to unfinished tasks are shaped not only by personal factors but also by additional organisational contexts (Syrek & Antoni, 2014). One such contextual factor is the expectations set by leaders, which have been shown to impact employees' work engagement (Veestraeten et al., 2020) and perceived pressure experience (Briker et al., 2020). *In general, performance expectations* refer to leadership behaviours that demonstrate expectations for excellence or high-quality performance from employees (Podsakoff et al., 1990). Past research indicates that leaders' behaviours further influence how stress affects employees and their well-being (Skakon et al., 2010). Syrek and Antoni (2014) found in their study that unfinished tasks are positively associated with work-related rumination, particularly concerning negative thoughts related to work. They discovered that this association was significantly stronger when employees perceived high-performance expectations from their leaders, suggesting a moderating effect. This implies that employees faced with higher expectations were more likely to experience negative thoughts about work during off-job time when encountering unfinished tasks.

The role of performance expectations in shaping employee experiences is complex, with evidence pointing to both detrimental and beneficial psychological outcomes. On the one hand, high expectations were found to impair further psychological recovery (Binnenwies & Herdt, 2012). For instance, transformational leadership, through idealised influence, was

found to direct employees' attention more strongly towards work-related behaviours over recreational ones (Rowold & Scholtz, 2009). On the other hand, although performance expectations are reported to exert pressure, research also highlights a potential for positive outcomes, such as increased focus and improved performance (MacKenzie et al., 2001). This aligns with a study finding on transformational leadership styles, which, despite setting ambitious performance goals, are linked to higher job satisfaction and improved organisational outcomes (Hilton et al., 2021; MacKenzie et al., 2001, p. 117). Seo et al. (2004) found that more pleasant affective experiences lead one to behave generatively, focusing on obtaining anticipated goals. Given these findings, performance expectations appear to have dual effects; they can put pressure on employees, which includes negative rumination, but they can also foster a sense of accountability and goal relevance, encouraging problem-solving and critical thinking. Therefore, it is reasonable to assume that performance expectations may moderate the relationship between unfinished tasks and affective rumination and also the link between unfinished tasks and problem-solving pondering.

The present study builds on the above-mentioned findings of Syrek and Antoni (2014). The aim is to replicate the demonstrated moderating effect of performance expectations by Syrek and Antoni (2014) on the association between unfinished tasks and work-related rumination. However, they treated the construct of work-related rumination as a unitary concept without including a more nuanced analysis of its different facets. Affective rumination and problem-solving pondering are empirically distinct (Cropley & Zijlstra, 2011; Martin & Tesser, 1996; Weigelt et al., 2019): the former involves repetitively negative valenced thoughts, while the latter is more about goal-oriented thinking during off-job time.

To advance this research, we address this limitation by distinguishing between these two forms of rumination. Syrek and Antoni (2014) defined work-related rumination as a broad form of repeatedly thinking about work in response to stress. This construct of work-related rumination will be specified as affective rumination and problem-solving pondering in this

study. It will be investigated whether performance expectations moderate not only the link between unfinished tasks and affective rumination but also the relationship between unfinished tasks and problem-solving pondering. This distinction is crucial because high-performance expectations may exacerbate affective rumination by increasing negative thoughts about work. Still, they may also foster goal-directed cognitive enhancement, potentially enhancing problem-solving pondering when facing unfinished tasks. This way, we try to clarify the dual role of performance expectations as both a stressor and a potential motivational cue to solve problems.

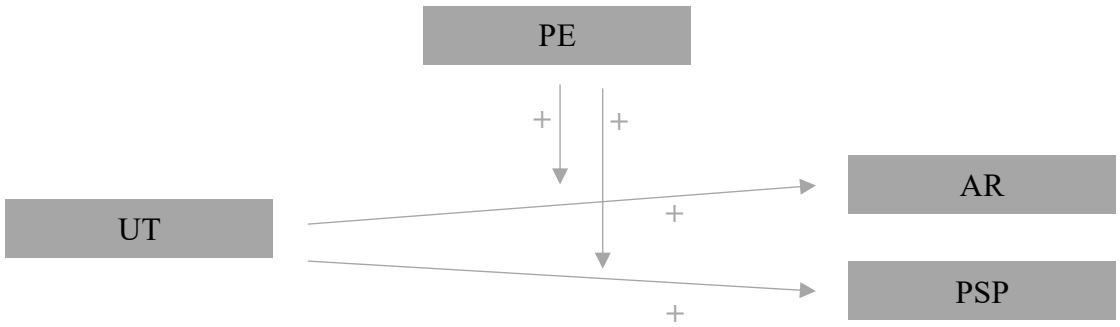
Thus, we propose the following two hypotheses:

Hypothesis 3: Perceived performance expectations strengthen the positive relationship between unfinished tasks and affective rumination.

Hypothesis 4: Perceived performance expectations strengthen the positive relationship between unfinished tasks and problem-solving pondering.

Figure 1

Research Model



Note. Research model with variables Unfinished Tasks (UT), Performance Expectations (PE), Affective Rumination (AR), and Problem-Solving Pondering (PSP).

Methods

Design and Procedure

This study, conducted jointly by students from the University of Groningen, investigates the relationship between unfinished tasks and various outcome and moderator variables. The study design employs a cross-sectional self-report survey. Data was collected using the online survey platform Qualtrics over 14 days. Participants received an online link via various online platforms. The recruitment process was conducted using convenience sampling methods by students from the Faculty of Social and Behavioural Sciences at the University of Groningen. The study was exempt from formal examination by the Ethics Committee of Psychology at the University of Groningen. To be eligible for the study, participants had to meet the following criteria: be at least 18 years old, have at least one year of professional work experience, and be proficient in either English, Dutch, or German. Before the survey, participants were informed of and provided with all background information about the study, along with a clear explanation of the informed consent. Only participants who actively agreed to the terms and conditions proceeded with the survey. Participation in the study was anonymous and involved no experimental manipulation.

The questionnaire included a brief section of demographic questions, followed by items related to the constructs. A total of 114 items were included in the survey, with an estimated participation time of 9-12 minutes. All items measured in the survey are provided in Table 2 in the appendix.

Sample

Participants in this study were employees recruited from multiple companies with diverse cultural backgrounds through convenience sampling methods. The sample size of participants who took part in the survey was originally n=135. After cleaning the data, individuals who showed insufficient effort in responding, did not complete the survey, or did not respond to the items of interest were removed, resulting in a final sample size of n = 98.

The age ranged from 21 to 68 (*M = 42.07, SD = 15.34*) (Table 1). The study consisted of 49 male participants and 49 female participants. The final sample came from different branches (manager positions, bankers, architects…). Participants from multiple nationalities participated in this study, with the most prevalent being German, Dutch, and Indian (Table 3). 30.6% of the sample worked more than 40 hours a week, 38.8% worked 31-40 hours/week, and 17.3% worked between 11-30 hours/week (Table 4).

Measures

All constructs included in the research model were assessed using validated scales. The online survey was administered in Dutch, English, and German to make it accessible to a broader participant pool. The variables of this research model — namely, unfinished tasks, affective rumination, problem-solving pondering, and performance expectations — were assessed as follows.

Unfinished Tasks (UT)

The scale generated by Syrek et al. (2017) was used to assess the construct of unfinished tasks, which consisted of a total of six items. All items can be found in the print version of the scale. Before answering all six items, participants were asked to reflect on their perception at the end of a typical workweek. One example item is ”*I have not finished important tasks that I had planned to do this week.*”. The response pattern was rated on a 5-point Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree). Cronbach’s alpha was *r=.83* in this study.

Affective Rumination (AR)

The five items related to the construct of affective rumination from the validated Work-Related Rumination Questionnaire (WRRQ) from Cropley et al. (2012) were used to assess the outcome variable affective rumination. One example item of the five items included in the survey is *“Do you become tense when you think about work-related issues during your free time?*”. Participants were instructed to relate the questions to their non-work time. The

items were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha was *r=.88* in the conducted study.

Problem-Solving Pondering (PSP)

The second outcome variable of problem-solving pondering was measured using the five problem-solving pondering-related items from the WWRQ developed by Cropley et al. (2012). The responses were rated on a 5-point Likert scale, as with the other constructs. Participants were asked to relate the questions to their thoughts during their free time. One example item from this scale is *"After work, I tend to think of how I can improve my work-related performance"*. Cronbach's alpha for this scale in our study was *r=.83*.

Performance Expectations (PE)

The moderator construct of performance expectations was measured with a scale developed by Pearce and Sims (2002). This scale was also used by Syrek and Antoni (2014) to measure performance expectations in their study. The original scale was constructed by combining various items from a team effectiveness questionnaire, which assesses different aspects of team performance. Participants were instructed to answer the questions based on their perceptions of the expectations they had from their managers, team leaders, or bosses. The three items used for our survey were: *"My team leader expects me to perform at my highest level"*, *"My team leader encourages me to go above and beyond what is normally expected of one (e.g., extra effort)"*, "*My team leader expects me to give 100% all of the time"*. The same response scheme as for the other constructs was used. Cronbach's alpha was *r=.69* for this scale.

Statistical Analysis

All statistical analyses were conducted using IBM SPSS Statistics (Version 28.0.1.1). We employ descriptive statistics, regression analysis, and correlational analysis to test the research model, including potential correlations between unfinished tasks and affective rumination and problem-solving pondering, as well as whether performance expectations

strengthen the relationship between unfinished tasks and affective rumination and problem-solving pondering. We used the PROCESS macro (Version 5.0) for SPSS developed by Hayes (2022). Specifically, we made use of model 1 for the analysis, which aims to test both simple moderation models and simple regression simultaneously. An alpha level of .05 was used to determine statistical significance in all analyses of this research. Multicollinearity between the predictor variable (UT) and the moderator (PE) will be analysed using the Variance Inflation Factor (VIF). To check whether all other assumptions are met, we use scatterplots of standardised residuals for each outcome variable (check normality). P-P plots between the independent variable (UT) and the dependent variables (AR and PSP) were used to check linearity and homoscedasticity.

Results

Preliminary Analysis

Cronbach's Alpha was used to check the reliability of the items. The reliability for performance expectations was found to be rather poor (r = .69), whereas it was good for the constructs of unfinished tasks (r = .83), Affective Rumination (r = .88), and problem-solving pondering (r = .83).

The descriptive statistics, including means and standard deviations for all constructs, are provided in Table 1. The intercorrelations are also displayed in Table 1. From our variables of interest, only the correlation between UT and AR was significant (r =.30, p =.003), indicating that unfinished tasks are correlated significantly with affective rumination.

Table 1

Descriptive Statistics and Correlations

	Mean	Std. Deviation	1	2	3	4	5
1. Unfinished Tasks	2.25	.70		.18	.30**	.15	.13
2. Performance Expectations	3.62	.82			.14	.13	.18
3. Affective Rumination	2.83	.94				.17	-.29**
4. Problem-Solving Pondering	3.39	.78					.76
5. Age	42.07	15.34					

Note. = 98; **Correlation is significant at the 0.05 level (2-tailed).

Assumptions for the regression analysis were also checked for both outcome variables, AR and PSP, based on the independent variable UT. The residual plots (Figures 2 and 3) show minor deviations from the straight line for both variables, but these deviations are not severe enough to violate the assumption of normality. The standard P-P plots (Figure 4 and Figure 5) display a random distribution of the residuals around zero. Therefore, the assumption of homoscedasticity and linearity is met for both outcome variables. When controlling for multicollinearity, the VIF for PE is below 4 (VIF = 1.033), indicating that there is no multicollinearity between the predictor variables UT and PE.

Unfinished Tasks and Work-Related Rumination

UT correlate positively and significantly with AR (r= 0.3, p = .003). All other correlations of UT and PSP (r= 0.15, p = .149), UT and PE (r= .18, p= .078), AR and PE (r= 0.14, p= .173), and PSP and PE (r= .13, p = .187) were insignificantly correlated (Table 1). Hypothesis 1 was supported, but there were no findings that indicate a significant relationship between PSP and UT (hypothesis 2).

Unfinished Tasks and the Role of Performance Expectations

The first PROCESS macro-outcome, which examined the relationship between unfinished tasks and affective rumination with a possible moderation effect of performance expectations, shows a main effect of the correlation between unfinished tasks and affective rumination (*β*=.36*, p*=.01) (Table 5). That means more unfinished tasks are associated with higher affective rumination. However, performance expectations did not significantly moderate the relationship between unfinished tasks and affective rumination *(β*=.13*, p*=.42) (Table 5). The addition of the interaction term with R^2 *change= .01* was insignificant (*p*=.42*)*(Table 7), indicating no significant value of the interaction term of performance expectations and unfinished tasks to the model. Hypothesis 3 was therefore not supported. The second PROCESS moderation analysis to test hypothesis 4 showed no significant main effects of UT on PSP (*β*= .15*, p*= .20) and PE on PSP (*β*= .11*, p*= .28). The interaction effect (UT x PE on PSP) was insignificant as well (*β*= -.06*, p*= .66*)* (Table 6). R^2 *change= .00*, which means no value was added to the model by the interaction (Table 8). Therefore, performance expectations did not moderate the relationship between unfinished tasks and problem-solving pondering and hypothesis 4 was not supported.

Exploratory Analysis

Upon closer examination of the effect of PE, no moderation effect of PE on the relationship of UT and AR and of UT and PSP was found (Tables 7 and Table 8). PE was also not found to be a significant predictor of AR *(β*= .09*, p*= .38)(Table 9) or PSP (*β*= .11*, p*= .28*)*(Table 10), rather than a moderator since PE was removed from both regression models.

Item reliabilities for PE were also checked in the exploratory analyses. According to the reliability analysis, removing one of the three items would considerably decrease Cronbach´s alpha of *r*= .693. Item total correlations ranged from .485 to .575. These results suggest that all the items are adequately capturing the construct of PE.

After conducting multiple PROCESS analyses with Model 3 to control for second-order moderator variables that might be a condition for a significant main or interaction effect, the outcome of Table 11 of UT, PE and Age (Age) as a second moderator, and their interactions on AR, shows that age had a significant negative relationship with AR (*β*= -.02*, p*= .0002*).* There is no zero contained in the confidence interval as well *(LLCI* = -.03*, ULCI* = -.01) (Table 11), indicating that as age increases, affective rumination tends to decrease among employees. The effects remained significant after controlling for UT, PE and their interaction terms in the same analysis. The negative significant correlation (*r*=-.29*, p*=.004) between affective rumination and age supports these findings.

Discussion

The present study aimed to investigate whether there is a relationship between unfinished tasks and two facets of work-related rumination: affective rumination and problem-solving pondering. Additionally, it was examined whether there is a moderating effect on the positive associations between unfinished tasks and affective rumination and problem-solving pondering.

Theoretical Implications

The significant link we found between unfinished tasks and affective rumination aligns with the Zeigarnik effect (Zeigarnik, 1927, 1938) and Control Theory (Carver & Scheier, 1982). Work-related thoughts stay mentally active due to the discrepancy between a person's current state and an incomplete goal, as they value making progress towards meaningful objectives. Further evidence was found that unfinished tasks are related to the concept of having recurrent thoughts (Martin & Tesser, 1996). Specifically, there are findings that link unfinished tasks to rumination, a mentally activating state that impairs detachment from work and is in line with previous study findings from Syrek & Antoni (2014) and Syrek et al. (2017).

Furthermore, the link between unfinished tasks and affective rumination, as well as the non-significant correlation between unfinished tasks and problem-solving pondering, provides support for distinguishing rumination into different kinds of sub-constructs (Cropley et al., 2011; Jimenez et al., 2021). Problem-solving pondering and affective rumination are not the same thing since unfinished tasks relate more strongly to affective rumination than to problem-solving pondering. We used the same scale as Syrek et al. (2017) to measure problem-solving pondering; however, unlike their study, we found no significant relationship between UT and PSP. Unlike Syrek et al. (2017), who conducted a within-person diary study over 12 weeks, measuring actual Friday-to-Monday transitions, in our study, we employed a one-time, cross-sectional assessment in which we asked participants to recall specific events. This may be one reason for the study's inconclusive findings. Recall bias and a lack of situational and temporal nuances necessary to assess problem-solving pondering accurately may have influenced our between-person study, whereas Syrek et al. (2017) captured real-time fluctuations at the within-person level in their study.

The absence of a moderating effect on the relationship between unfinished tasks and affective rumination and unfinished tasks and problem-solving pondering suggests that performance expectations may not universally influence how unfinished tasks relate to rumination. The non-significant moderation effect of performance expectations on the relationship between unfinished tasks and the two work-related rumination facets contradicts our initial expectations based on the findings of Syrek and Antoni (2014), which suggested that performance expectations foster work-related rumination. However, one must take into account that Syrek and Antoni (2014) used the outcome variable of general rumination, which is different to our operationalisation and a possible reason for diverging findings. Whereas Syrek and Antoni (2014) employed an irritation-based scale, we used a differentiated measure that separates affective rumination from problem-solving. Although in the study of Weigelt et al. (2019), irritation has been shown to correlate significantly with affective rumination (r=

.75) and moderately with problem-solving pondering (r= .53), irritation may still reflect a broader, less specific facet of work-related rumination as an outcome variable. Furthermore, Syrek and Antoni (2014) conducted a more nuanced within-person, longitudinal study to account for personal variance. Our cross-sectional study only examined between-person differences, which may be another reason for the insignificant findings.

While conducting exploratory research on the variables that could condition the performance expectations moderating the associations between unfinished tasks and affective rumination, we found a main effect for the variable age, which correlated negatively with affective rumination. That implies that age plays a role in the likelihood of rumination about work since older individuals were found to ruminate less than younger ones. Applying the findings to the real world, the non-significant moderation effect of performance expectations on unfinished tasks, affective rumination and problem-solving pondering might indicate that leaders´ performance expectations only affect rumination under specific circumstances in the workplace.

Practical Implications

The link between unfinished tasks and affective rumination and the absence of a link between unfinished tasks and problem-solving pondering implies that employees build up tension about goal-related thoughts outside work. At least in a negative ruminating way, but not necessarily in terms of constructive problem-solving thinking. Recent research findings suggest that performance expectations can influence how employees address work-related issues (Briker et al., 2020; Syrek & Antoni, 2014; Veestraeten et al., 2020). Too high-performance expectations seem to influence the outcome of irritation or lack of detachment (Syrek & Antoni, 2014). This might not be applicable to the specific facets of work-related rumination: problem-solving pondering and affective rumination.

The link between unfinished tasks and affective rumination seems to be quite robust and not contingent on performance expectations. Hence, avoiding unfinished tasks might be

the most straightforward approach to providing recovery-focused interventions. For instance, setting daily work goals could help employees mentally switch off during their free time and improve occupational health and performance (Smit, 2015).

Limitations and Strengths

One strength of our study is that only validated and peer-reviewed scales were used to assess our constructs of interest. Most of the scales had a Cronbach's alpha above 0.8, indicating good reliability for those scales. However, the scale of performance expectations with Coronach's alpha of r=.69 falls below the acceptable reliability value of r=.70 (Tavakol & Dennick, 2011). Including more items or refining the phrasing of the items may help to achieve a more accurate measurement of performance expectations. The questionable reliability of this scale may have contributed to the insignificant findings related to that construct. Another issue to consider in assessing performance expectations is that we asked participants to answer the questions as if it were the end of a work week, but only once. People tend to remember stress with impaired processing of associations (Grob et al., 2023), which might have influenced how they recalled unfinished tasks and performance expectations. If participants are not currently facing high demands of unfinished tasks or performance expectations, their responses might not accurately reflect their usual mental states when they experience a high workload. A repeated real-time assessment would likely have captured weekly fluctuations in higher levels of unfinished tasks and higher performance expectations better.

Another strength of our study is that our cross-sectional design is both time- and cost-efficient (Spector, 2019), allowing for the efficient assessment of associations. We further translated our survey into three languages, which enabled us to assess a diverse range of people across various cultures, specifically in 17 countries. There was a very good distribution in age (Age 20-29= 36.7%, Age 31-49= 25.5%; Age 50+ 37.8%), gender (49 women; 49 men) and a broad range of work occupations in our sample. On the other hand, it must be

considered that almost all participants came from WEIRD countries (Western, Educated, Industrialised, Rich, Democratic), making it challenging to generalise these findings to the entire population (Masuda et al., 2020). The sample size in this study was relatively small, which also may have limited our ability to identify small correlations as significant. Another limitation of the conducted cross-sectional study is that it only allows for the analysis of between-person factors, but not within-person aspects. This provides no opportunity to control for dynamic changes related to rumination based on contextual factors (e.g., high or low workload). Syrek and Antoni (2014) took those aspects into account in their longitudinal study by assessing employees' mental states over multiple weeks. This could be one reason for our insignificant finding compared to their significant moderating effect of performance expectations on unfinished tasks and work-related rumination.

Future Research

Implications for future studies could be to focus on the effects of leadership behaviours and what consequences their expectations have for employees. There exists "a very fine line between motivating enticements and overstraining employees by expecting too much" (Syrek & Antoni, 2014). Future studies could build on this by analysing whether leadership expectations lead to inspiration for task completion and goal achievement, thus supporting employee well-being, or whether they increase negative rumination about unfinished tasks. Understanding this matter may help leadership approaches that enhance employee performance and well-being without contributing to overload or strain.

Since an effect of age on affective rumination was found in this study (r=-.29, p=.004), taking a closer look at the other effects age has on work demands might contribute to understanding the factors that influence how employees react to work demands. Research has already established that affective rumination significantly declines with age (Cropley et al., 2023). This may be due to the enhanced use of adaptive emotion-regulation strategies (Scheibe et al., 2016), which are crucial for recovery from work demands, such as unfinished

tasks. Future research that considers age-related differences and makes use of longitudinal designs could gain deeper insights into how employees navigate work demands over time and across different life stages.

Conclusion

This study aimed to investigate whether there is a significant relationship between unfinished tasks and two types of work-related rumination: problem-solving and affective rumination. We further analysed whether leaders' performance expectations moderate the relationship between unfinished tasks and the two types of work-related rumination (affective rumination and problem-solving pondering). The findings supported a significant positive relationship between unfinished tasks and affective rumination, suggesting that unresolved goals are associated with increased negative work-related thoughts. Unfinished tasks did not link to problem-solving pondering, which could indicate that unfinished tasks are associated with specific kinds of rumination but not with any form of rumination.

Contrary to our hypotheses and the findings of Syrek et al. (2014), our data did not support a moderating effect of performance expectation on the relationship between unfinished tasks and work-related rumination. This suggests that performance expectations might not intensify employees´ tendencies to ruminate about work or that specific or improved measurements must be taken to find an effect. Ultimately, helping employees complete what they have started may support their mental recovery during off-duty time and enhance their overall well-being.

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Appendix

Table 2

Set of Variables in Questionnaire in order of Assessment

Variables
Gender
Age
Nationality
Highest attained educational level
Occupation or job title
Amount of professional working years
Performance expectations
Unfinished tasks
Taking charge
Professional self-efficacy
Work competence need satisfaction
Stress mindset
Regulatory focus
Executive functioning
Cognitive flexibility
Affective rumination
Problem solving pondering
Positive affective work prospection
Detachment
Sleep impairment
Recovery activities
Relaxation

Table 3

Nationalities of Participants

		Frequency	Percent
Valid		1	1,0
	American	6	6,1
	Austrian	1	1,0
	British	2	2,0
	Canadian	1	1,0
	Cypriot	1	1,0
	Dutch	26	26,5
	Dutch, French	2	2,0
	Dutch, French, American	1	1,0
	Egyptian	1	1,0
	German	32	32,7
	Indian	18	18,4
	Kenyan	1	1,0
	Norwegian	1	1,0
	Polish	1	1,0
	Romanian	1	1,0
	Singaporean	1	1,0
	Turkish	1	1,0
	Total	98	100,0

Table 4

Worked hours/week of Participants

	Frequency	Percent
0-10 hours	13	13.3
11-20 hours	11	11.2
21-30 hours	6	6.1
31-40 hours	38	38.8
More than 40 hours	30	30.6
Total	98	100.0

Table 5

PROCESS Macro Outcome of Model 1 with Variables UT, PE, AR

	coeff	p	LLCI	ULCI
constant	2.82	.00	2.63	3.00
UT	.36	.01	.09	.63
PE	.10	.37	-.12	.33
Int_1	.13	.42	-.19	.46

Note. **Correlation is significant at 0.05 level (2-tailed).

Table 6

PROCESS Macro Outcome of Model 1 with Variables UT, PE, PSP

	coeff	p	LLCI	ULCI
constant	3.40	.00	3.24	3.56
UT	.15	.20	-.08	.39
PE	.11	.28	-.09	.30
Int_1	-.06	.66	-.35	0.22

Note. **Correlation is significant at 0.05 level (2-tailed); Variables of the model: Unfinished Tasks (UT), Performance Expectations (PE), and Problem-Solving Pondering (PSP)

Table 7

PROCESS Test of Interaction Term (X x W) of UT, and PE on AR

R2-chng	F	p
.01	.66	.42

Table 8

PROCESS Test of Interaction Term (X x W) of UT, and PE on PSP

R2-chng	F	p
.00	0.2	.66

Table 9

Excluded Variables of Regression Model UT and PE on AR

Modell	Beta	T	Sig.
1 PE	.09[a]	.89	.38

Table 10

Excluded Variables of Regression Model UT and PE on PSP

Modell	Beta	T	Sig.
1 PE	.11[a]	1.09	.28

Table 11

Model 3 PROCESS Macro Summary with Variables: UT, PE, Age, AR

Term	Coeff	p	LLCI	ULCI
Age	-.02	.0002	-.03	-.01

Figure 2

Residual Scatterplot with Dependent Variable AR

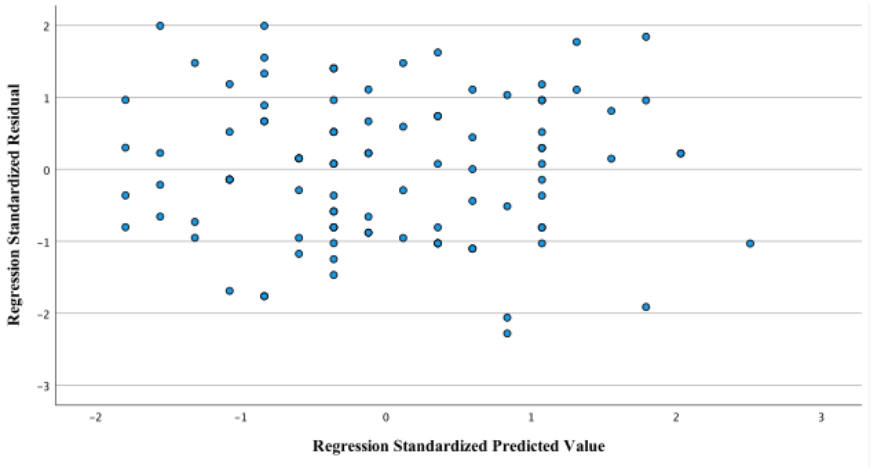

Figure 3

Residual Scatterplot with Dependent Variable PSP

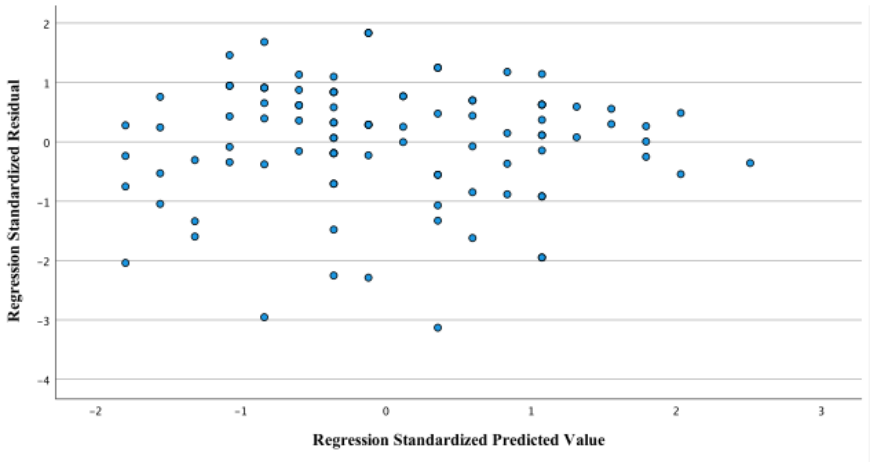

Figure 4

Normal P-P Plot of Regression Standardised Residual with Dependent Variable AR

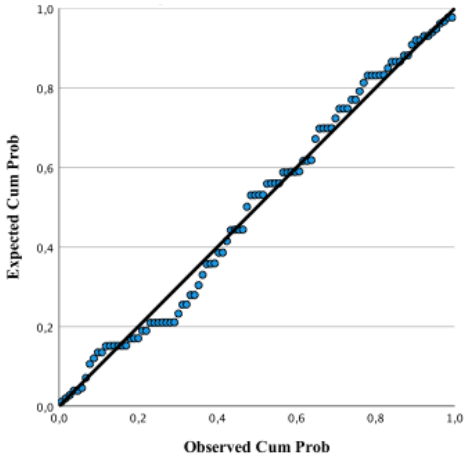

Figure 5

Normal P-P Plot of Regression Standardised Residual with dependent variable PSP