

# Effects of External Interruptions on Well-being

## Introduction

Interruptions are inevitably an integral part of many workplaces (Akbar et al., 2019). According to the findings of the European Working Conditions Survey (EWCS) carried out across 15 European countries, almost one third (28%) of the respondents report several unexpected interruptions during work, which not only keep them from meeting their obligations but are also assigning them new tasks (Boisard et al., 2003). Interruptions at work can be helpful in ensuring the flow of knowledge and information as well as in supporting social contacts and interactions (O'Connell & Frohlich, 1995). However, they also show negative effects such as extending the task duration (Eyrolle & Cellier, 2000), disrupting the concentration (Trafton & Monk, 2007), increasing the error rate of tasks (Oulasvirta & Saariluoma, 2004), and are affecting the attention regarding current tasks

(Leroy, 2009). It has also been suggested that interruptions lead to an increase in unfinished tasks (Jett & George, 2003). Moreover, unfinished tasks lead to lower detachment and studies consistently depict that detachment positively predicts well-being after work (Sonnentag & Bayer, 2005). As all of these factors appear to be connected, a daily diary has been used to investigate not only further effects of interruptions but also a possible mediation by unfinished tasks and detachment on well-being. In accordance with the above the results have shown that interruptions at work have a direct negative effect on well-being, but not if unfinished tasks and detachment from work are introduced as mediating factors. Implications and practical advice for employees with managerial responsibility are being discussed.

## Research Questions

- Can the assumed correlation between external interruptions and well-being be explained by unfinished tasks and detachment as mediating factors?
- Can this assumed causal connection be replicated in the first place?
- Does time pressure moderate the relationship between unfinished tasks and detachment?

## Sample & Method

- $N = 104$
- **Age:** 19 - 61 | ♀ 61,5% (M = 32.38, SD = 10.25) | ♂ 37,5% (M=32.5, SD=9.4)
- **Inclusion criteria:** working  $\geq 20$  hours per week | owning a smartphone
- **Survey:** Online Questionnaire in German | October 2019 - November 2019
- **Methods:** Mediation & Moderation in PROCESS macro (Hayes, 2018)

## Instruments

Dimension	Scale	Source	Items	$\alpha$	Examples
Interruptions	Interruption Scale	Lin et al. (2013)	4	.94	„Ich werde häufig von anderen unterbrochen“
Unfinished Tasks	Unfinished Task Scale	Syrek et al. (2016)	5	.95	„Eine Menge Aufgaben, die heute fällig waren, habe ich nicht beendet“
Time pressure	ISTA	Semmer et al. (1998)	3	.82	„Standen Sie heute unter Zeitdruck?“
Detachment from work	Recovery Experience Questionnaire	Sonnentag S., & Fritz C. (2007)	4	.93	„Am Feierabend vergesse ich meine Arbeit“
Well-being	PANAS	Breyer, B. & Bluemke, M. (2016).	8	.91	„Ich fühle mich stark“

## Results

- ✓ H1: External interruptions have a negative effect on well-being after work.
- ✓ H1a: The relationship between external interruptions and well-being is mediated by unfinished tasks and detachment from work.
- ✓ H2: The number of external interruptions has a positive effect on unfinished tasks.
- ✓ H3: The number of unfinished tasks has a negative effect on detachment from work.
- ✓ H4: Detachment from work has a positive effect on well-being after work.
- ✗ H5: Time pressure moderates the relationship between unfinished tasks and detachment..

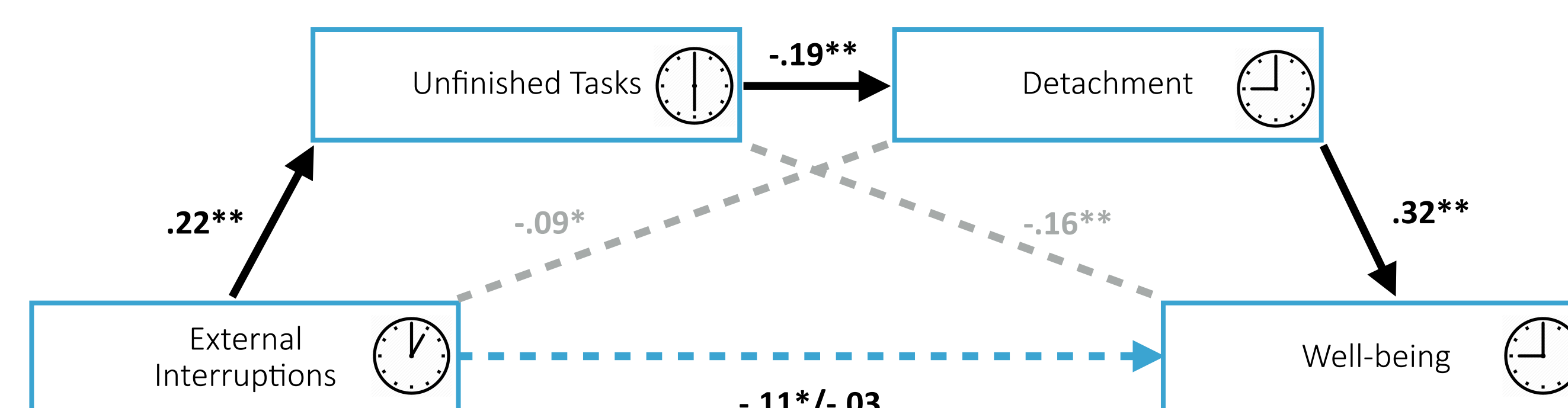


Fig.1: Causal serial mediation model

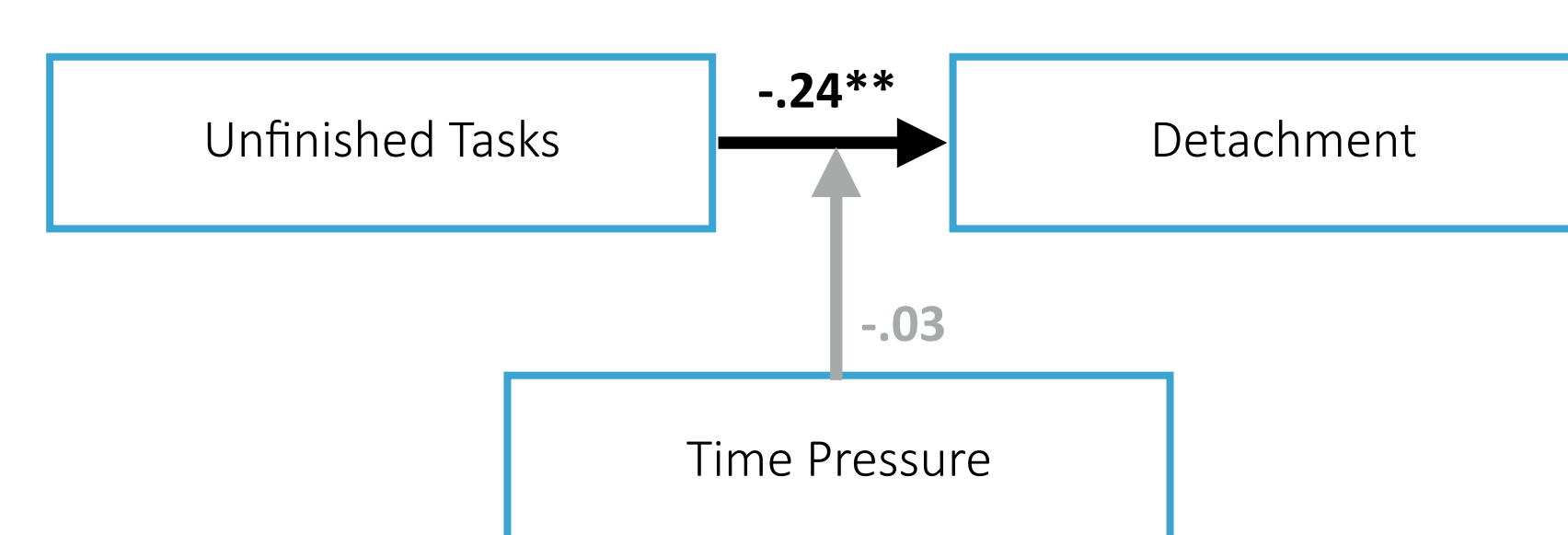


Fig.2: Moderator Time Pressure

## Discussion & Implications

This study confirmed that the presented relationship between external interruptions and well-being, as postulated in current literature, is mediated by unfinished tasks and detachment. Moreover, the proposed correlations between interruptions and unfinished tasks, between unfinished tasks and detachment, as well as between detachment and well-being are all significant and could be replicated. Furthermore, the link between detachment and well-being at positive-affective states is stronger than it is at negative-affective states. It could imply that either the instrument for assessing well-being is biased in favor of positively affective states, or it highlights the possible disproportionate impact of detachment on well-being, or both influence the connection. Having said that, it is interesting to see that time pressure does not moderate the relationship between unfinished tasks and detachment in a significant way. It seems likely that one should finish their tasks in order to be able to detach from work. Nevertheless, no evidence could be found for time pressure moderating this relationship. This, however, could be the result of a retrospectively perceived time pressure and not an anticipated one stemming from an increased workload. A focus on longer-lasting time pressure could show different results.

Regarding practical implications, the results deliver important insights for employees with managerial responsibility. First, the relationship between interruptions and unfinished tasks does not depend on the type of interruption, meaning there is no need to differentiate private and work-related disruptions. Second, to ensure detachment after work, employees need to have the opportunity to complete their work goals. By supporting employees in reaching their targets, a positive-affective state can be facilitated. Third, if interruptions can not be avoided, working towards the achievement of daily and weekly-based goals becomes even more important in terms of well-being. Agile process frameworks like Scrum and other agile management approaches can be of use. And furthermore, it is reasonable to inform employees about the mechanisms of interruptions and the relevance of goal accomplishment. A limitation concerning this study is the acquired convenience sample. In addition, the collected data is subject to known limitations of self-report questionnaires, meaning all factors are understood as perceived ones, e.g. perceived interruptions. Future research could help to determine additional factors which should explain more of the variance of the relationship between external interruptions and well-being.

## References

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