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Break recovery experiences as mediators between emotional job demands and daily affective well-being

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- Third article of my PhD dissertation
- My research focuses on Finnish teachers' recovery from work during different breaks from work: leisure time, vacations, and breaks during the workday
- Part of a larger research project conducted in Tampere University 2017-2019 and funded by Finnish Work Environment Fund

What is recovery from work?

- Process of alleviating strain symptoms caused by job demands (Sonnentag & Fritz, 2015) and restoring employees' energetic and mental resources (Zijlstra & Sonnentag, 2006).
- Protects against the harmful effects of high job demands on employee well-being (Sonnentag et al. 2017).
- Both rest and detachment from job demands (Effort-Recovery Model; Meijman & Mulder, 1998) and replenishing threatened personal resources (Conservation of Resources theory; Hobfoll, 1989)

Recovery experiences

- Recovery experiences are psychological recovery-promoting experiences which underlie different recovery activities (Sonnentag & Fritz, 2007)
- **The DRAMMA model** aims to explain how and in what circumstances leisure enhances subjective well-being (Newman et al., 2014)
- Sonnentag & Fritz (2007): detachment, relaxation, control, mastery
- Newman et al. (2014): detachment, relaxation, autonomy, mastery, meaning, affiliation

Recovery from work during breaks 1/2

- Break is an episode of the working day during which employees shift their attention away from work tasks (Hunter & Wu, 2016).
- Recovery during breaks can prevent the accumulation of stress and help maintain positive mood, energy and productivity throughout working day (e.g., Kühnel et al., 2017; Von Dreden & Binnewies, 2017).
- A favorable recovery state at the end of the working day also has a positive effect on employees' recovery processes in the evening (Van Hooff & Geurts, 2014; Van Hooff & de Pater, 2017).
- Break activities and psychological experiences can increase the recovery potential of a break.

Recovery from work during breaks 2/2

- Detachment (e.g. Coffeng et al., 2015; Von Dreden & Binnewies, 2017)
- Relaxation (e.g., Bosch et al., 2018; de Bloom et al., 2017)
- Autonomy/control (e.g. Bosch et al., 2018)
- and affiliation (Bosch et al., 2018)

during breaks are related to favorable well-being outcomes.

- To our knowledge, mastery and meaning during breaks has not been studied so far, although these experiences promote well-being during off-job time

Teachers' occupational well-being

- A stressful occupation with high job demands and burnout rates (e.g., Arvidsson et al., 2016; Skaalvik & Skaalvik, 2017)
- Teachers often face **emotional demands**, such as stressors related to interactions with pupils, colleagues or parents (e.g., Bauer, 2007; Skaalvik & Skaalvik, 2017; Unterbrink et al., 2008).
- Emotional demands tend to be negatively related to occupational well-being (e.g., Hülsheger & Schewe, 2011; Scheibe et al., 2015) and are likely to challenge recovery from work during breaks.

Recovery experiences as mediators between job demands and well-being

- Both theoretical and empirical perspectives suggest that recovery experiences can act as underlying mechanisms in the relationship between job demands and well-being (e.g. Bennett et al., 2018; Demerouti et al., 2009; Kinnunen et al., 2011)
- However, these previous studies have focused on leisure time, not breaks during the workday.
- We expect that high emotional demands at work can prevent recovery experiences during breaks, which in turn may result in less positive affect and more negative affect in the afternoon and in the evening.

Hypotheses

- H1: Higher daily emotional job demands are related to lower levels of recovery experiences during breaks.
- H2: Higher daily emotional job demands are related to lower positive affect and higher negative affect in the afternoon (H2a) and in the evening (H2b).
- H3: Break recovery experiences are related to higher positive affect and lower negative affect in the afternoon (H3a) and in the evening (H3b).
- H4: Recovery experiences mediate the relationship between daily emotional demands and positive and negative affect in the afternoon (H4a) and in the evening (H4b).

Methods

- One-week (Mon-Fri) diary study in November 2017
- Three daily paper-and-pencil questionnaires (morning, 4pm, evening) and a background questionnaire
- N = 107: Finnish teachers and school principals
- Mean age 50 years
- 88% women
- 93% worked in comprehensive schools (teaching pupils aged 7 to 16), and the rest in upper secondary schools (teaching pupils aged 17 to 19)

Measures

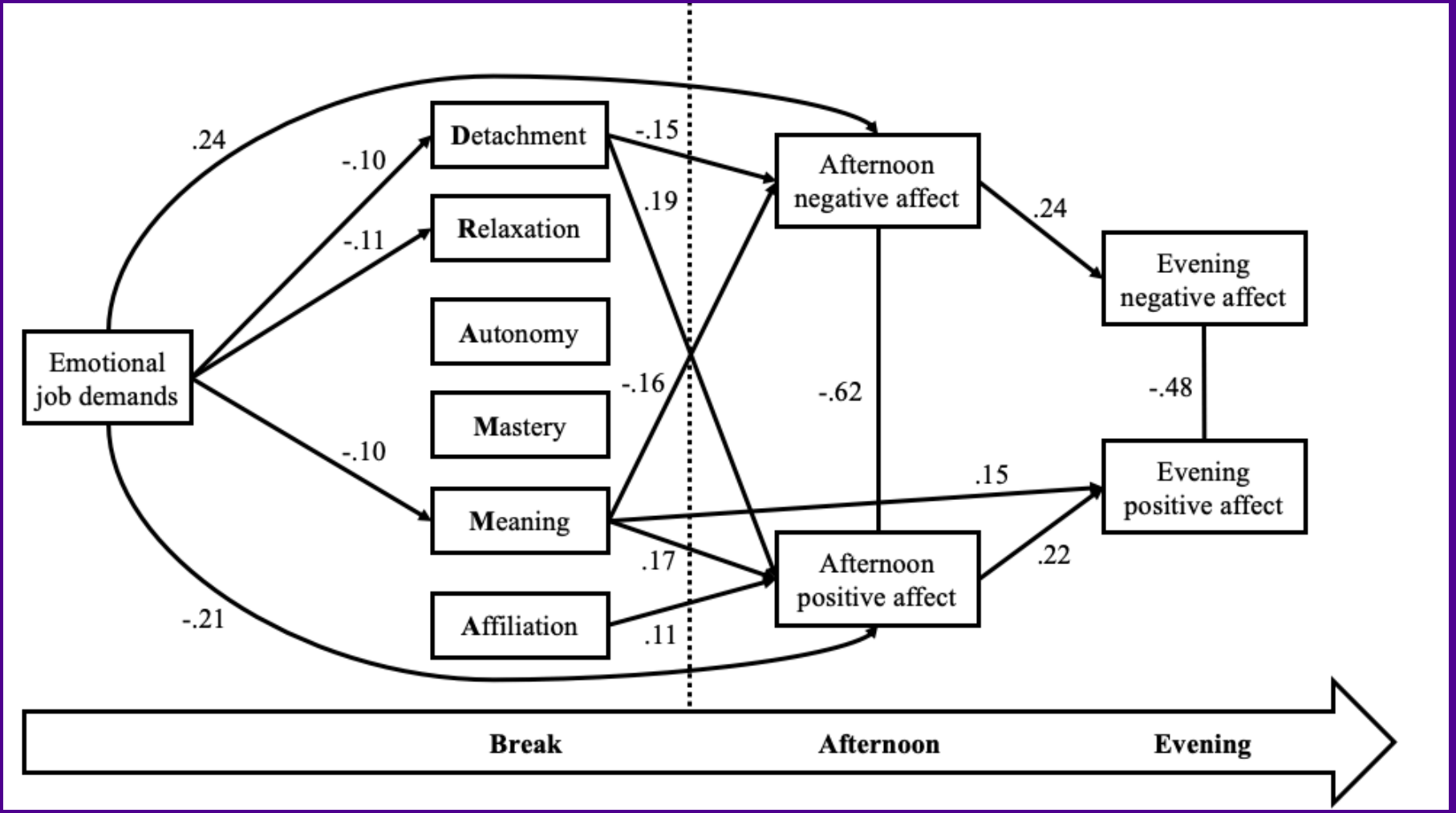
- Emotional demands: 3 items from COPSOQ-II (Pejtersen et al., 2010)
- Break recovery experiences: 8 items (from state version of REQ by Bakker et al., 2015; meaning adapted from Butler & Kern, 2016 & Schulenberg et al., 2010; affiliation adapted from van den Broeck et al., 2010).
- Affects: 7 adjectives or adjective pairs (Warr, 1990)
- Workload (control variable): 3 items (Spector & Jex, 1998)

Statistical approach: Multi-level path modeling (Mplus)

- Intra-class correlations confirmed that 37% to 64% of the variance in the study variables was on the day-level (within individuals).
- Associations between variables were modelled on the within-level and thus the predictor in our model (i.e., emotional demands) and our control variable daily workload were person-mean centered (Ohly et al., 2010).
- All other variables were either outcome variables or mediators and were thus not centered (Aguinis et al., 2013).
- Hypotheses 1–3 were tested in one multi-level model and all predictors were added as fixed effects.

- If the requirements for mediation were fulfilled (Hayes, 2009; Hayes, 2013), we tested Hypothesis 4 by calculating the indirect effects and their 95% confidence intervals (CI) with Bayesian estimation (using default starting values and iterations).
- We assessed model fit with the root mean square error of approximation (RMSEA) comparative fit index (CFI), and standardized the root mean square residual (SRMR).
- Robustness analyses to check whether background variables (e.g. gender, age, years of work experience, work hours, number of breaks) change the results. Adding these as control variables did not change the results of the analyses.

Within-level results of the relationships between emotional demands, break DRAMMA, and afternoon and evening affect



Main results

- **Detachment and meaning** functioned as underlying mechanisms between daily emotional job demands and affects
- Emotional demands were also directly related to higher NA and to lower PA in the afternoon
- In addition, **affiliation** was related to afternoon PA, but it was not associated with emotional demands
- Affiliation was also the most frequently reported break recovery experience

Theoretical contributions

- Support to the DRAMMA model: in addition to detachment, break meaning and affiliation seem to be beneficial for affective well-being
- Our study revealed new paths through which emotional demands are detrimental to well-being at the day-level
- New insights concerning the relationship between within-workday recovery and well-being *after* the working day

Limitations

- Timing of the measurements: daily emotional demands, break recovery experiences, and afternoon affects were measured at same time point
- We did not differentiate between different types of breaks, so we couldn’t compare lunch breaks and other shorter breaks
- Paper-and-pencil questionnaires
- We cannot draw definite conclusions in causality, because our study did not include manipulation of variables (e.g. an intervention).

Practical implications

- Detaching from work tasks, positive social interactions with colleagues, and doing something meaningful during breaks are good for teachers' daily well-being
- Employers should pay more attention to ensuring working conditions which enable recovery during breaks
- Interventions to support especially teachers' recovery during the workday

Thank you!
Kiitos!

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References

- Arvidsson, I., Håkansson, C., Karlson, B., Björk, J., & Persson, R. (2016). Burnout among Swedish school teachers – a cross-sectional analysis. *BMC Public Health*, *16*, 1-11.
- Bauer, J. et al. (2007). Working conditions, adverse events and mental health problems in a sample of 949 German teachers. *International Archives of Occupational and Environmental Health*, *80*, 442–449.
- Bennett, A. A., Bakker, A. B., & Field, J. G. (2018). Recovery from work-related effort: A meta-analysis. *Journal of Organizational Behavior, 39*, 262–275.
- Bosch, C., Sonnentag, S., & Pinck, A. S. (2018). What makes for a good break? A diary study on recovery experiences during lunch break. *Journal of Occupational and Organizational Psychology*, *91*, 134–157.
- Coffeng, J. K., van Sluijs, E. M., Hendriksen, I. J., van Mechelen, W., & Boot, C. R. (2015). Physical activity and relaxation during and after work are independently associated with the need for recovery. *Journal of Physical Activity and Health*, *12*, 109–115.
- de Bloom, J., Sianoja, M., Korpela, K., Tuomisto, M., Lilja, A., Geurts, S., & Kinnunen, U. (2017). Effects of park walks and relaxation exercises during lunch breaks on recovery from job stress: two randomized controlled trials. *Journal of Environmental Psychology*, *51*, 14–30.
- Demerouti, E., Bakker, A., Geurts, S., & Taris, T. (2009). Daily recovery from work-related effort during non-work time. In S. Sonnentag, P. Perrewé & D. Ganster (Eds.), *Current perspectives on job-stress recovery* (pp. 85–123). Bingley: Emerald Group Publishing

- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*, 408–420.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York, NY: Guilford Press
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*, 513–524.
- Hülsheger, U. R., & Schewe, A. F. (2011). On the costs and benefits of emotional labor: a meta-analysis of three decades of research. *Journal of Occupational Health Psychology*, *16*, 361–389.
- Hunter, E. M., & Wu, C. (2016). Give me a better break: Choosing workday break activities to maximize resource recovery. *Journal of Applied Psychology*, *101*, 302–311.
- Kinnunen, U., Feldt, T., Siltaloppi, M., & Sonnentag, S. (2011). Job demands–resources model in the context of recovery: Testing recovery experiences as mediators. *European Journal of Work and Organizational Psychology*, *20*, 805–832.
- Kühnel, J., Zacher, H., de Bloom, J., & Bledow, R. (2017). Take a break! Benefits of sleep and short breaks for daily work engagement. *European Journal of Work and Organizational Psychology, 26*, 481–491.
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In Drenth, P.J.D, Thierry, H., & de Wolff, C.J. (Eds.), *Handbook of Work and Organizational Psychology*, (2nd edition) (pp. 5–33). Hove, UK: Psychology Press.
- Newman, D. B., Tay, L., & Diener, E. (2014). Leisure and subjective well-being: A model of psychological mechanisms as mediating factors. *Journal of Happiness Studies*, *15*, 555–578.

- Scheibe, S., Stamov-Roßnagel, C., & Zacher, H. (2015). Links between emotional job demands and occupational well-being: Age differences depend on type of demand. *Work, Aging and Retirement*, *1*, 254–265.
- Skaalvik, E. M., & Skaalvik, S. (2017). Still motivated to teach? A study of school context variables, stress and job satisfaction among teachers in senior high school. *Social Psychology of Education, 20*, 15–37.
- Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology*, 12, 204–221.
- Sonnentag, S., & Fritz, C. (2015). Recovery from job stress: The stressor-detachment model as an integrative framework. *Journal of Organizational Behavior*, *36*, S72–S103.
- Sonnentag, S., Venz, L., & Casper, A. (2017). Advances in recovery research: What have we learned? What should be done next? *Journal of Occupational Health Psychology*, *22*, 365–380.
- Unterbrink, T., Zimmermann, L., Pfeifer, R., Wirsching, M., Brähler, E., & Bauer, J. (2008). Parameters influencing health variables in a sample of 949 German teachers. *International Archives of Occupational and Environmental Health*, *82*, 117–123.
- Van Hooff, M. L., & de Pater, I. E. (2017). Let's have fun tonight: The role of pleasure in daily recovery from work. *Applied Psychology*, *66*, 359–381.
- Van Hooff, M. L., & Geurts, S. A. (2014). Need satisfaction during free evening hours: Examining its role in daily recovery. *Stress & Health*, *30*, 198–208.
- Von Dreden, C., & Binnewies, C. (2017). Choose your lunch companion wisely: The relationships between lunch break companionship, psychological detachment, and daily vigour. *European Journal of Work and Organizational Psychology*, *26*, 356–372.
- Zijlstra, F. R. H., & Sonnentag, S. (2006). After work is done: Psychological perspectives on recovery from work. *European Journal of Work and Organizational Psychology*, *15*, 129–138.