



EAWOP Small Group Meeting

Challenges in Work Stress

12-13 September 2024 | Graz, Austria

PROGRAMME

Welcome

It is a great pleasure for us to welcome you all to the EAWOP Small Group Meeting "Challenges in Work Stress" at the University of Graz.

We are aware that for many of you travelling to Graz to be here has meant an investment of time, effort and money. We are confident that this investment will be worthwhile. As usual, this Small Group Meeting will cover the latest research in three keynotes and 20 individual presentations. We have no doubt that each of you will be able to listen to interesting talks that are relevant to your own research and activities.

Many of you will also be presenting at the conference. Some of you have long experience of presenting; for others it will be one of their first times. But all of you will benefit from the questions, feedback and discussions inspired by your presentation. We know that your respectful, curious, supportive and critical community is essential to the success of this event.

We also hope that the breaks and the social programme will help you to expand your networks and intensify collaboration in our field. During the guided city tour you will be able to enjoy the city and get to know Graz a little better. We are proud and honored to host this Small Group Meeting in this wonderful city that has become our home.

Kind regards,



Roman Prem



Bettina Kubicek

Organizers of the Small Group Meeting

Thank You!

We would also like to take this opportunity to thank the group that was the organizing team for this Small Group Meeting. This team includes Sabine Bergner, Wilfried Grassegger, Sabina Hodzic, Paul Jiménez and Dagmar Schmelzer. All these people took on tasks and responsibilities and supported the organization process with their creativity, diligence, and thoughtfulness. But perhaps the largest share of the work was done by Dagmar Schmelzer, who, among other things, helped us by sharing her knowledge of organizing events and by managing many project and budget processes, as well as Wilfried Grassegger, who helped a lot with the preparation of the event and who also designed and realized this beautiful programme brochure. Without you, this Small Group Meeting would not have been possible.

Obviously, we also had outside help. We are very thankful to our Scientific Committee, Anja Baethge, Anne Casper, and Miriam Schilbach, who volunteered to review all submitted abstracts. Their inputs helped us in selecting the papers for presentation. We also want to thank all the presenters, panelists, and other participants for contributing to this event.

Finally, we would also like to thank all the companies, organizations, and institutions that cooperated with us by funding or sponsoring the event, thus showing their interest in this scientific meeting of work and organizational psychologists and in our work. We received funding from the European Association of Work and Organizational Psychology (EAWOP) and several grants from the University of Graz (PostDoc Event Grant from the PostDoc Office, reimbursement of room rental costs from Location Development, and additional event funding from Research Management and Service). Funding and financial support was also provided by the Austrian Research Association (ÖFG), the City of Graz, the Styrian Psychological Association (StGP), and the Division of Work, Economic, and Organizational Psychology (Fachsektion AWO) of the Professional Association of Austrian Psychologists (BÖP). We are also grateful to the research-team for supporting the event as a sponsor.

Kind regards,

Roman Prem and Bettina Kubicek

We work for
tomorrow



ÖFG II
ÖSTERREICHISCHE
FORSCHUNGSGEMEINSCHAFT

GRAZ



STEIRISCHE GESELLSCHAFT FÜR
PSYCHOLOGIE



Meeting Theme and Scope

"Challenges in Work Stress: Advancing the Knowledge about Challenge Stressors and Recommendations for Addressing Ambivalent Work Demands in Policy and Practice"

In the literature on job stress, it has become common to distinguish between challenge stressors and hindrance stressors. Although both types of job stressors are thought to be detrimental for workers' health and well-being because they increase strain, challenge stressors differ from hindrance stressors in that their effects are ambivalent because they also have the potential to enhance workers' motivation, growth, and performance (e.g., Cavanaugh et al., 2000). Initially, the core assumptions of the challenge-hindrance stressors framework were well supported in meta-analyses (e.g., Crawford et al., 2010; LePine et al., 2005), but more recent meta-analytic findings also question the favourable effects of challenge stressors (Mazzola & Disselhorst, 2019) and/or suggest that some challenge stressors may need to be reclassified (Kubicek et al., 2023). Empirical studies investigating the underlying mechanisms have mostly focused on the role of cognitive appraisal processes (e.g., Searle & Auton, 2015) and already identified several boundary conditions for the favourable effects of challenge stressors (e.g., LePine, 2016; Ma et al., 2021; Rosen et al., 2020). Nevertheless, a better understanding of challenge stressors and how they affect workers' health, well-being, and performance is essential to improve recommendations on how to deal with such ambivalent job demands, both on a policy level and in organizational practice.

The SGM seeks to answer the following questions:

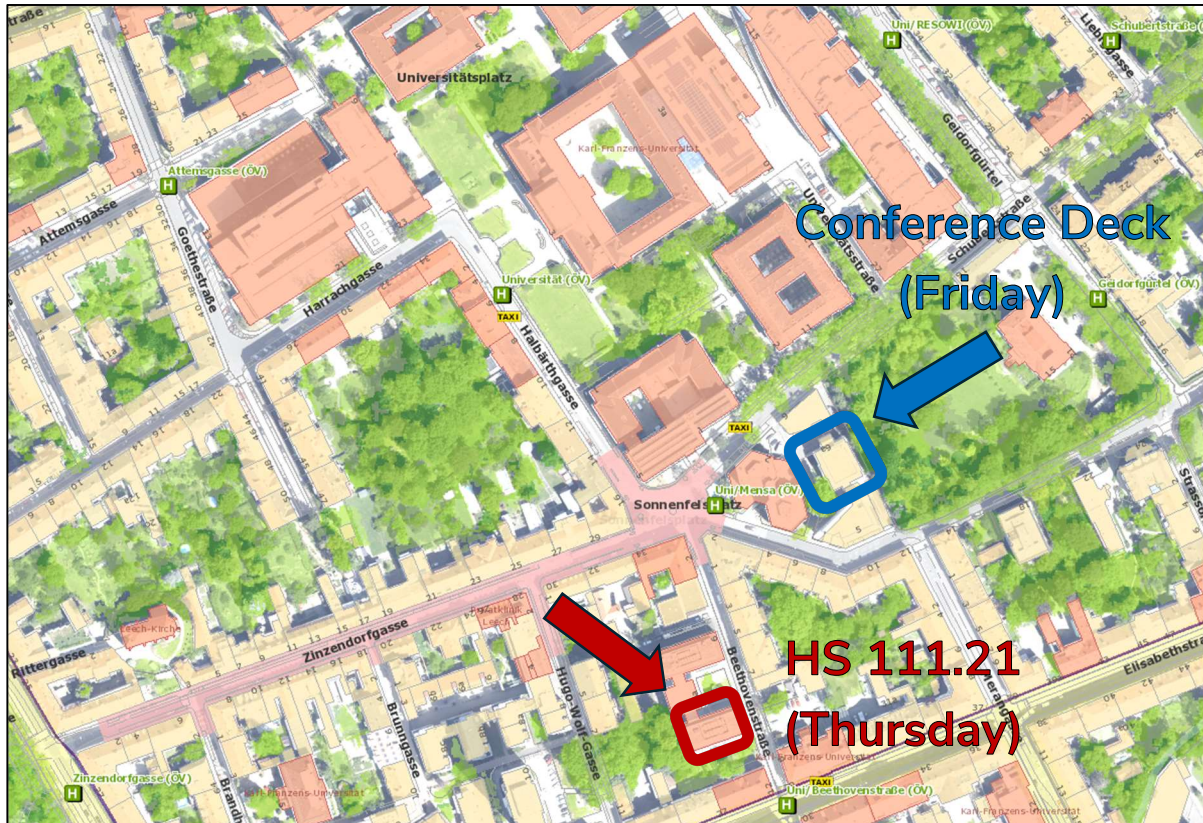
- a. Which specific job demands should be classified as challenge stressors and what is the rationale for this classification?
- b. What are the actual effects of challenge stressors on workers' health, well-being, and performance and which additional outcomes should be considered?
- c. What role do cognitive appraisal processes play in explaining the effects of challenge stressors and what other mechanisms should also be taken into account?
- d. What boundary conditions play a role in the effects of challenge stressors and what interventions could enhance favourable effects and/or buffer adverse effects?
- e. What is the role of time in the favourable and/or adverse effects of challenge stressors and how do they combine in the long term?
- f. What advances in theory and/or methodology are needed to further our understanding of challenge stressors?

Although this SGM is intended to have an academic focus, it will also seek to bridge the 'academic-practitioner gap' by actively involving policy makers and practitioners in a panel debate and presentations. As such, this SGM will also strive to produce a policy brief with evidence-based recommendations that will be easily readable and widely accessible, and shape a new research agenda based on insights, experiences, and suggestions from policy makers and practitioners.

Location



The SGM will be held at **HS 111.21**, Beethovenstraße 8, 2nd Floor on Thursday all-day and on Friday morning. After lunch on Friday, we will change to **Unicorn-Conference Deck**, Schubertstraße 6a, 4th Floor. Both locations are barrier-free accessible.

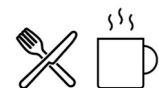


Internet Access



Internet access is available via eduroam. If you do not have eduroam or experience access problems with eduroam please contact the SGM-Team for alternative access options.

Lunch and Coffee Breaks



The lunch and coffee breaks are catered by Café Liebig on both days. Vegetarian and vegan dishes are available.

Dinner



The dinner on Thursday will be held at **Herzl Weinstube** (Prokopigasse 12 / Mehlplatz, 8010 Graz | <https://dieherzl.at/>) starting at 18:30. We will arrive there together after we finish the guided city tour.

Transportation

Bus



The following bus lines will stop at the university:

- 31 - Uni/Mensa
- 41 - Uni/Mensa
- 63 - Uni/Mensa

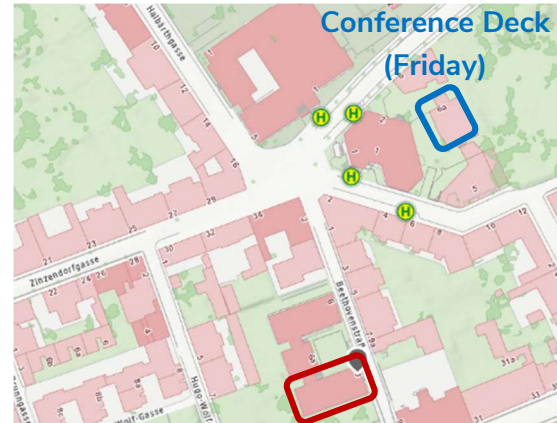
Tickets are available via GrazMobil-App and can also be purchased directly on busses (cashless).



Android



iPhone



HS 111.21
(Thursday)

Taxi centres

- Taxi 878: +43 316 878
- Taxi 2801: +43 316 2801

Airport transfer

FLUGHAFENTAXI: +43 664 512



From Vienna Airport to University of Graz



There are trains and busses departing every hour. The journey takes about 3-4 hours.

From Graz Airport to University of Graz

- Walk to the train station → Take **Train S5** from Flughafen Graz-Feldkirchen Bahnhof to Hauptbahnhof → Change to **Bus 63** towards Schulzentrum St. Peter → Exit at Uni/Mensa
- Take **RegioBus 630** towards Graz Zentralfriedhof → Change to **Tram 5** towards Andritz → Exit at Jakominiplatz and change to **Bus 31** towards UNI-Resowei → Exit at Uni/Mensa

From University of Graz to Airport Graz

- Take **Bus 63** towards Hauptbahnhof → Change to **Train S5** towards Spielfeld-Straß → Exit at Flughafen Graz-Feldkirchen Bahnhof and follow the signs to the airport
- Take **Bus 31** towards Webling → Exit at Don Bosco Bahnhof and change to **Train S5** towards Spielfeld-Straß → Exit at Flughafen Graz-Feldkirchen Bahnhof and follow the signs to the airport
- Take **Bus 31** towards Webling → Exit at Jakominiplatz and change to **Tram 5** towards Puntigam → Exit at Zentralfriedhof and change to **RegioBus 630** towards Airport Graz

Schedule



Thursday, 12 September 2024

- 9:00 – 9:15 Registration
- 9:15 – 9:30 Welcome to the Small Group Meeting
- 9:30 – 10:15 Keynote “Embracing the challenge - Reflections of the past and thoughts about the pathways forward” (M. A. LePine)
- 10:15 – 10:45 Coffee break
- 10:45 – 12:30 Individual presentations – Session 1
- 12:30 – 13:45 Lunch break
- 13:45 – 14:30 Keynote “Unpacking the motivational processes underlying hindrance and challenge related stressors” (A. Van den Broeck)
- 14:30 – 15:00 Coffee break
- 15:00 – 16:45 Individual presentations – Session 2
- 16:45 – 17:15 Reflection of the day
- 17:30 – 18:30 Get together and guided tour through the city
- 18:30 – 21:00 Dinner at Herzl Weinstube

Friday, 13 September 2024

- 8:30 – 10:15 Individual presentations – Session 3
- 10:15 – 10:45 Coffee break
- 10:45 – 12:30 Individual presentations – Session 4
- 12:30 – 13:00 Summary and reflection
- 13:00 – 14:15 Lunch break
- 14:15 – 14:30 Change of location → Unicorn-Conference Deck
- 14:30 – 14:45 Welcome to public part
- 14:45 – 15:30 Keynote “Addressing the challenge of flexible work designs: Intervention transfer strategies for policy and practice” (A. Michel)
- 15:30 – 16:00 Coffee break
- 16:00 – 17:30 Panel debate on implications for policy, practice, and research (B. Huber, P. Jiménez, S. Nawrocka, A. Parent-Thirion; Moderator: S. Bergner)
- 17:30 – 18:00 Farewell and closing

Keynotes

Marcie A. LePine

Clinical Professor

W. P. Carey School of Business, Arizona State University

Title: Embracing the challenge - Reflections of the past and thoughts about the pathways forward



Thursday, 9:30 – HS 111.21

Abstract. The Challenge-Hindrance Stressor Framework (CHSF) has been researched for almost 25 years. In those 25 years, important insights have been gained through the lens of the CHSF. In this keynote address, I will discuss the beginnings of the CHSF, focusing on the complexities and nuances associated with challenge stressors. While hindrance stressors have shown a more consistent negative impact on employee well-being and performance (with a few exceptions), challenge stressors present a more intricate picture. I will explore what we currently know about responses to challenge stressors, highlighting how they can both motivate and strain individuals to varying degrees, depending on context, individual differences, resources, time, and other factors. Additionally, I will share a few thoughts on future pathways, offering insights into how we might harness the potential benefits of challenge stressors while mitigating their downsides. It is my hope that, together, we will deepen our understanding of challenge stressors and enhance our collective knowledge of their important role in the workplace.

Anja Van den Broeck

Professor

Department of Work and Organisation Studies, Faculty of Economics
and Business, KU Leuven

Optentia, North West University, South Africa

Title: Unpacking the motivational processes underlying hindrance and challenge related stressors



Thursday, 13:45 – HS 111.21

Abstract. Job stress research distinguishes between two types of job demands: challenge stressors and hindrance stressors. While hindrance stressors are uniquely detrimental to workers' health, contributing to burnout and decreasing work engagement, challenge stressors are ambivalent, as they have the potential to increase both burnout and work

engagement. Although the literature has documented these effects, they have not been consistently supported. In this keynote presentation, I explore why and when challenge and hindrance stressors impact employees by examining their relationship with motivation, as explained by Self-Determination Theory (SDT). SDT posits that the satisfaction of three basic psychological needs—autonomy (volitional functioning), relatedness (feeling cared for and connected), and competence (feeling effective)—is essential for well-being, optimal performance, and autonomous motivation. I will provide an overview of the literature on the processes associated with challenge and hindrance stressors, including appraisal, emotions, and motivation. Additionally, I will introduce new research highlighting how motivation may further elucidate the impact of these stressors. By doing so, I aim to offer insights into why the effects of hindrance and challenge stressors are not always straightforward, which has hindered their inclusion in other work design models.

Alexandra Michel

Scientific Director and Professor
Division 1: Changing Working World, Federal Institute for Occupational
Safety and Health (BAuA), Dortmund, Germany | Psychology Institute,
Heidelberg University, Heidelberg, Germany



**Title: Addressing the challenge of flexible work designs:
Intervention transfer strategies for policy and practice**

Friday, 14:45 – Unicorn-Conference Deck

Abstract. Even before the SARS-CoV-2 pandemic, there was a trend that many people worked temporarily or constantly in different places and at different times. This trend will no longer be the exception, but the rule. Such flexible work designs, also called hybrid working, provide a colourful mix of work at the office, co-working spaces, at home or at other places. In line with assumptions concerning the impact of challenge stressors flexible working can have ambivalent effects. Positive effects may include a better work-life balance, the organization of working hours according to employees' own preferences and needs, as well as higher employee satisfaction and increased productivity. However, there can also be negative effects. If boundaries between work and private life become blurred, it can be hard to (1) detach from work, (2) separate work and private life, (3) find a relaxing balance in everyday life and (4) organize work effectively. This talk gives an overview about the ambivalent effects of flexible work designs. There will also be a specific focus on policy impact and transfer strategies to reduce negative effects and promote positive effects of flexible work designs. Thereby, the FlexAbility intervention approaches and empirical evidence of their effectiveness will be presented aiming to enable workers and teams to organize their flexible work in a resourceful and healthy way.

Panel Debate



The Panel debate on implications for policy, practice, and research will be held as a publicly accessible hybrid session. Of course, all participants of the SGM have a reserved seat to participate in presence.

Participants

Sabine Bergner (moderator)

Associate Professor at the University of Graz, AT
Affiliate at the Leadership Lab of the Vrije Universiteit
Amsterdam, NL
Chair of the Styrian Psychological Association (StGP), AT



Barbara Huber (panelist)

Occupational Psychologist at the Prevention Department of
the Austrian Workers' Compensation Board (AUVA), AT



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Paul Jiménez (panelist)

Associate Professor at the University of Graz, AT
Head of the Division of Work, Economic, and Organizational
Psychology of the Professional Association of Austrian
Psychologists (BÖP), AT



Sonia Nawrocka (online panelist)

Working Conditions, Health & Safety Researcher at the
European Trade Union Institute (ETUI), BE



Agnes Parent-Thirion (online panelist)

Senior Research Manager at the European Foundation for the
Improvement of Living and Working Conditions (Eurofound), IE



Individual Presentations

There will be four sessions for individual presentations. Presentations should last **15 minutes**, leaving an additional 5 minutes for the discussion of each paper. Please prepare your slides in **PowerPoint or PDF format with a 16:9 aspect ratio** and bring them on a **USB stick**. Presentations should be uploaded to the computer in the conference room during the break before your session. Presenting authors are underlined in the overview below.

Session 1 Assessing the categorization of “typical” challenge stressors

Meta-analytic and daily diary evidence of the associations of challenge stressors with learning, motivation, and strain

Uhlig, L., Kubicek, B., Hülshager, U. R., Korunka, C., & Prem, R.

Is workload the typical daily challenge stressor? Follow up analysis on a meta-analysis of diary studies

Pindek, S.

Nurses' workload as a challenge or hindrance on interpersonal effectiveness? Conditional effects on energy

Mihelič, K. K., Balas Rant, M., & Merkuž, A.

Temporal dynamics in time pressure appraisal – Testing the effects of a general time pressure appraisal tendency

Baethge, A., & Vahle-Hinz, T.

Finding the truly challenging time pressure: Introducing a multidimensional concept of time pressure with illegitimacy as a key boundary condition

Kern, M., Schüttke, L., Rigotti, T., & Schilbach, M.

Session 2 Understanding the favourable effects of challenge stressors

How and when daily challenge stressors promote employees' work engagement

Prem, R., Ohly, S., Weigelt, O., Siestrup, K., & Kubicek, B.

Does strengths-based leadership help employees cope with challenge and hindrance stressors?

Wang, J., Breevaart, K., van Woerkom, M., & Bakker, A. B.

Another perspective on the work environment: Combinations of challenge and hindrance demands and job resources and their link with well-being outcomes

Toscanelli, C., Parmentier, M., & Hirschi, A.

A systematic review about resource-oriented mental-health promotion – Organisational- and individual-level workplace interventions and their effectiveness on increasing work engagement and well-being

Mattana, S., Schilling, H., & Kauffeld, S.

Workplace stressors as triggers of stress inoculation: A conceptual model

Schilbach, M., LePine, M., & Rigotti, T.

Session 3 Focusing on specific challenge stressors and contexts

Stress and decision making in an ER department

Spiteri, G. & Cassar, V.

Academics' experiences of and attempts to manage their work-related anxiety: An examination of challenge/hindrance-informed job crafting approaches

Conway, N., Aboubichr, B., Clinton, M., & Kiefer, T.

Underperformance in the framework of challenge-hindrance stress model

Grinautsky, K., & Pindek, S.

Challenge or hindrance? Idle time in movie theaters

Zeschke, M., & Zacher, H.

The experience of idle time as an intermediate process between work constraints and well-being outcomes

Schubert, K., Rudolph, C., & Zacher, H.

Session 4 Looking into moderators and effects over time

Proactive personality in the stress process: Examining challenge and hinderance stressors

Ohly, S., Menkhaus, C., & Stanossek, T.

How employee exhaustion predicts stressor perception and appraisal: A scenario-based approach

Casper, A., Reis, D., & Sonnentag, S.

Exploring the effects of midday cognitive demands of flexible work on afternoon and evening positive and negative affect: A 10-day diary study on the moderating roles of stable burnout and engagement

Adami, G., Rakus, A.-M., Bindl, U., & Dettmers, J.

The effects of time pressure and next-day work outcomes: The mediating role of work-home integration

Tement, S., Ficjan, M., & Kerman, K.

Work stressors and burnout: A study of longitudinal within-person dynamics

Maunz, L., De Beer, L. T., & Glaser, J.

Abstracts

Presenting authors are underlined. Affiliations refer to presenting authors.

Session 1 Assessing the categorization of “typical” challenge stressors

Meta-analytic and daily diary evidence of the associations of challenge stressors with learning, motivation, and strain

Uhlig, L., Kubicek, B., Hülshager, U. R., Korunka, C., & Prem, R.

Karl Landsteiner Private University for Health Sciences, Krems, AT

Research goals. This study has two primary objectives: First, to conduct a meta-analytic examination of the associations between two challenge stressors (workload and cognitive demands) and employee outcomes (learning, motivation, and strain) and examine potential moderator variables in these relations. Second, to address limitations of the meta-analysis through a diary study, investigating within-person effects of challenge stressors while including job responsibility as an additional challenge stressor.

Theoretical background. Two competing theoretical perspectives frame our research. The challenge-hindrance stressor framework proposes that all challenge stressors, while stressful, promote learning and motivation. Conversely, action regulation theory argues that learning is facilitated only by cognitive demands, but not by workload. This study aims to empirically test these competing predictions. Additionally, we explore the potential moderating role of the occupational context and the level of workload in our meta-analysis and whether job responsibility acts as a challenge stressor in our diary study.

Methodology. For the meta-analysis, we analyzed 417 independent samples (N=319,306) to investigate associations between workload and cognitive demands with learning, motivation, and strain. We also examined whether these relationships were different for care and social workers and whether measures of overload showed different relations than measures of load. In the diary study (N = 125, 672 entries) we explored within-person relations between workload, cognitive demands (problem-solving), job responsibility and learning, motivation (work engagement) and strain (emotional exhaustion).

Results. The meta-analysis found that workload was positively related to strain, but negatively related to learning and motivation. Cognitive demands in contrast, were positively related to learning and motivation, but not related to strain. For most of the investigated relations there was substantial heterogeneity across studies. Studies involving care or social workers demonstrated more consistent findings, although the overall direction of effects remained similar. The negative relationship of overload and learning was stronger than for load and learning. The diary study found that daily workload was positively associated with daily strain; daily cognitive demands were positively associated with daily learning; and daily job responsibility was positively associated with daily learning and daily motivation.

Discussion. Regarding the effects on learning, our results align more closely with action regulation theory. Further, our results suggest that the motivational effects of workload may be negative or more complex than previously thought. The high heterogeneity observed in the meta-analysis, particularly for workload's relationships with motivation and learning, and

cognitive demands' associations with motivation and strain, indicates the presence of important boundary conditions for challenge stressors. The occupational context proved to be relevant, with care and social worker samples showing less heterogeneous relationships between stressors and outcomes. The occupational context may influence the presence of other demands or resources, affect how stressors are appraised, and determine whether successfully dealing with challenge stressors is associated with additional rewards or considered a regular part of the job. The moderation analyses also showed that for very high levels of workload, the negative effects seem to be stronger. The diary study replicated only the most robust relationships from the meta-analysis, supporting the notion that moderator variables might play a crucial role in how challenge stressors affect employees. Regarding responsibility at work, the diary study provides one of the first data points suggesting positive associations with engagement and learning, but no relation with strain. Further research is needed to probe the robustness of these findings. Notably, we did not find evidence for the simultaneous positive and negative effects of stressors as proposed by the challenge-hindrance stressor framework in either of the studies. Instead, stressors were associated with either detrimental or beneficial outcomes, but not both concurrently.

Limitations. The moderation analyses should be interpreted cautiously as they are based on small subgroups. Additional moderator analyses were not possible due to limited data in secondary studies. Both the meta-analysis and diary study primarily provide correlational evidence, and do not allow inferences about the direction of the effects between challenge stressors and outcomes. As recent studies have found evidence for reverse causation between stressors and strain there is a strong need for longitudinal research to disentangle the direction of effects between challenge stressors and outcomes.

Conclusion, including implications for research, policy, and/or practice. By providing a detailed examination of differential effects of challenge stressors with employee outcomes, this research demonstrates the complexities inherent in predicting when employees will feel challenged or harmed by workplace stressors. To move forward, more research on the boundary conditions of the effects of challenge stressors will be necessary.

Is workload the typical daily challenge stressor? Follow up analysis on a meta-analysis of diary studies

Pindek, S.

University of Haifa, IL

Research Goals. The challenge-hindrance stressor framework assumes that both challenge and hindrance stressors result in increased strain, but that although challenge stressors can have positive effects on performance outcomes, hindrance stressors have negative effects on performance. These assumptions were generally supported in a recent meta-analysis of within-person studies (Pindek et al., 2024). The current follow-up analysis focuses on workload as a prominent challenge stressor, sometimes considered the prototypical challenge stressor. Therefore, workload might be driving the relationship between challenge stressors and performance. This follow-up study is a test for this line of thinking.

Theoretical background. There is reason to expect a high association between workload and task performance at the within-person level, because on any specific day, employees who get a lot of work done (task performance) can only do so when there is a lot of work to do

(workload). This confounds self-appraisals of workload and performance within each day, but does not apply to other challenge stressors, or to the workload-OCB association. Furthermore, if the nature of the tasks is not interesting (i.e., qualitatively challenging), a higher workload may not have positive effects on motivation and performance (Schilbach et al., 2023). Along those lines, Kubicek et al. (2023) found that cognitive demands, but not workload, resulted in these positive outcomes.

Methodology. A follow-up analysis using the original meta-analytic coding from the Pindek et al. (2024) meta-analysis was therefore conducted, focusing on the association between challenge stressors (workload versus other challenge stressors) and positive performance indicators (task and OCB). Challenge stressors were classified as workload (including time pressure), other challenge stressors (e.g., helping pressure, multitasking, emotional job demands, task complexity, knowledge overload, impulse control demands), or combining both workload and other challenges. Of the 39 included estimates, 12 were of workload variables, 22 were of challenge stressors other than workload, and 5 were of measures that included workload and non-workload items (i.e., combined measures).

Results. Few of the meta-analytic estimates were significantly different from zero. There was a small significant positive association between challenge stressors and positive performance, as in the published meta-analysis ($\bar{\rho} = .11$, 95% CI = [.03, .19]). The association between challenge stressors and OCB was also significant ($\bar{\rho} = .19$, 95% CI = [.05, .32]). None of the estimates that resulted from the breakdown of challenge stressors into workload and non-workload variables was significant, but the trends of the results revealed that workload had a very similar association with both task performance and OCB ($\bar{\rho} = .13$ and $.12$, respectively). Non-workload stressors had descriptively different association with performance and OCB ($\bar{\rho} = .02$ and $.21$, respectively), although these differences were not significant. Credibility intervals were very large, indicating that there is a great deal of heterogeneity within both the workload and the non-workload variable categories. Considering the (non-significant) trends in the results, it seems that workload is not driving the general challenge stressors-positive performance association. Nevertheless, workload, compared to other challenge stressors, may be more closely associated with task performance. Support for these ideas is tentative, seeing as differences are not significant.

Limitations. There are several limitations to this investigation. First, the small number of studies that inform each of the subgroup analyses, together with substantial heterogeneity, made it difficult to obtain significant results. Second, classifying challenge stressors into workload and non-workload categories was difficult, because primary studies often did not provide enough information to enable finding the complete measures they used. Therefore, there may have been instances of mis-classifying studies into the workload or non-workload categories of studies that should have been classified under the “combined measures” category.

Conclusions. This study provided tentative evidence that discounts the idea that having a high workload is confounded with higher self-appraisals of task performance. It also highlights the importance of transparency regarding the measures being used, and precision in matching the name of a measure to the construct that is actually being assessed. This seems particularly problematic within the domain of challenge stressors. Future transparency and precision will advance our understanding of unique challenge stressors.

Relevance to SGM topic. Workload is considered a salient challenge work stressor, and much work has been devoted to it. Nevertheless, there is still much that is not well understood about how workload affects employee outcomes.

Nurses' workload as a challenge or hindrance on interpersonal effectiveness?

Conditional effects on energy

Mihelič, K. K., Balas Rant, M., & Merkuž, A.
University of Ljubljana, SI

Research goals. To unpack the nuances in the relationship between a challenge/hindrance stressor and an organizational outcome by introducing the concepts of energy and sleep quality as resources. To explore whether workload acts as challenge and hindrance stressor under different energy level conditions (Rosen et al., 2020). To investigate whether the challenge stressor actually serves as a motivational incentive for nurses to act. Indeed, researchers have recently questioned the differential effect of challenging and hindering stressors (Kubicek et al., 2023). Exploring the relationships between nurses who are seen as heroes but have been stigmatized and even labeled as dirty heroes during the pandemic (Rapp et al., 2023).

Theoretical background. We develop a conceptual model in which we examine how workload (measured as number of patients/day) is related to interpersonal effectiveness, which measures the extent of collaboration between staff. In particular, we are interested in how daily workload affects the subjective perception of daily collaboration, interaction, and work between nurses (i.e., nurses' interpersonal effectiveness). Increased workload can lead to a decrease in available resources, resulting in negative emotional states such as anxiety (Rosen et al., 2020) or emotional exhaustion (MacPhee et al., 2017). On the other hand, nurses' workload has also been recognized as a challenge stressor, because when nurses experienced a higher workload, they were also more engaged at work (Ding & Cao, 2023). So, depending on the situation, nurses may perceive a higher workload as either a challenge or a hindrance. The nursing profession is highly interactive (Chowdhury & Endres, 2010): Nurses interact daily with patients to ensure quality service, with other nurses to optimize workflow, and with physicians (the leaders of their teams) to achieve daily and weekly goals. What "hinders and what challenges" at work is "in the eye of the beholder" and how the nurse interprets the situation on a daily basis depends on the interactions in the environment and the energetic state of the individual (Podsakoff et al., 2023). Studies have shown that sleep improves physical strength and mental energy (Söderström et al., 2012) and teams in which interpersonal relationships are good perform better (Kozlowski & Ilgen, 2006). It is therefore important to see whether the effects of workload are seen as a challenge or a hindrance to interpersonal effectiveness if we make the relationship dependent on individual energy. We argue that individual sleep quality and experienced relational energy influence the nature of the stressor challenge/hindrance through subjective individual energy. A recent study has highlighted interpersonal relationships as one of the most important resources in the nursing profession (Broetje et al., 2020). We therefore hypothesize that the effects of the subjective experience of individual energy are stronger when nurses have better sleep quality and positive relational energy flowing through the relationships in the work team. Thus, when individual energy is higher, nurses will experience a stronger relationship between workload and interpersonal effectiveness, reducing the potentially harmful effects of high workload. In situations with high individual energy, nurses will perceive workload as a stressor, which contributes to increased interpersonal effectiveness. In contrast, in low individual energy situations, the effect between high workload and interpersonal effectiveness is smaller and nurses do not have the energetic resources to help them see the situation positively, so the

workload is experienced as a hindering stressor to interpersonal effectiveness. We base our conceptual model on the theories of human energy at work (Baker, 2019; Quinn et al., 2012) and the challenge-stressor-hindrance-stressor framework (LePine et al., 2005; Podsakoff et al., 2023).

Methodology. The data for this study is currently being collected. Our sample consists of 60 registered nurses from various public sector healthcare facilities in Slovenia. We use a diary study design (experience sampling method) in which participants answer an online questionnaire daily over a 30-day period.

Results. Established scales adapted for a diary design were used to measure the variables. In addition, actimeter wristbands were used to measure the quality of the respondents' sleep. We will test the proposed model of mediated moderation with MPlus and present the results in the small group meeting.

Limitations. The limitation of this abstract is that the data are not yet available at the time of submission, so the preliminary analyses have not yet been conducted.

Conclusions. We hope to inform practice with our study by highlighting the importance of fostering interpersonal relationships to improve nurses' job performance and well-being. Under conditions of low subjective individual energy, the challenge stressor may act as hindrance stressor.

Temporal dynamics in time pressure appraisal – Testing the effects of a general time pressure appraisal tendency

Baethge, A., & Vahle-Hinz, T.

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Research goals. In the present study, we aim to advance knowledge of the role of the appraisal process in determining whether time pressure acts as a challenge or hindrance by focusing on the time dynamics of the appraisal process. We examine the effect of general challenge or hindrance appraisal tendencies (of time pressure) and its variability on the relationship between weekly time pressure with work engagement and irritation.

Theoretical background. While Lazarus and Folkman (1987) focus in their transactional stress theory on the appraisal of a single episode of work stress, we propose that general appraisal tendencies (or experiences) will also affect behaviour in single time pressure episodes. Assessing general (person-level) differences in appraisal in addition to the appraisal of a momentary situation (e.g., during one week) provides us with information on how time pressure is generally experienced in one's job and it allows us to test whether these general experiences (and thus maybe expectancies) will affect the momentary effect of time pressure. Based on theoretical assumptions of habituation processes (Diener et al., 2006; Matthews et al., 2014; Ritter et al., 2016), we further assume that a stable (vs. variable) general hindering appraisal will lead to a decrease of detrimental effects of hindering time pressure on engagement and health. Based on contradictory findings and assumptions (Downes et al., 2020; Rosen et al., 2020) about the variability of challenges (varying challenges: singular opportunities for growth vs. higher attentive costs), we abstain from propositions according to variability of general challenge appraisal.

Methodology. In a multilevel analysis of a five-week-weekly diary study (N = 277) we calculated the moderation effect of the mean and standard deviation of challenge and

hindrance appraisal (between-level) on the weekly relationship between time pressure (within-level) with work engagement and strain (under control of weekly challenge and hindrance appraisal).

Results. Our results show firstly that both momentary (within-person) and general (between-person) appraisal have an effect on engagement and strain in the proposed directions (challenge appraisal is positively related to work engagement and strain, hindrance appraisal is negatively related to work engagement and positively to strain). We found no moderation effect for general challenge appraisal at all. General hindrance appraisal moderated the effect of time pressure on vigour and absorption. The relationship was positive (/non-significant) if hindrance appraisal was low (/high) for absorption. We also found significant three-way interactions for the mean and the SD of hindrance appraisal on vigour, dedication, and cognitive irritation as outcomes. A low variability of general high hindrance appraisal reduced the moderation effect of general hindrance appraisal on the relationship between time pressure and work engagement/strain.

Limitations. One limitation is, that we have clear assumptions about causality (time pressure leads to engagement and strain), but our study design does not allow to test these.

Conclusions. We conclude that there is a habituation effect that reduces the effect of hindering time pressure. Employees seem to become habituated to hindering time pressure if they experience the same level of it over five weeks and the hindrance experience does not have an impact on the time pressure-motivation/strain relationship. Thus, future studies need to take possible habituation effects into account, if they plan to examine hindrance effects above a longer time frame. Moreover, future studies could investigate these assumed habituation effects in more detail. It would be interesting to know whether becoming habituated to hindering time pressure becomes a resilience factor that protects employees against the stressful and demotivating effects of unchangeable hindrances, or whether in the long run it is detrimental to their health (e.g., in terms of overcommitment).

Relevance to the SGM topics. This study examined the effects of actual (weekly) and general appraisal on the prototypical challenge stressor time pressure. While we replicated that time pressure cannot be a priori categorized as challenge stressor per se, we could further show, that even the appraisal effect can change depending on whether this appraisal is stable or not. Thus, we should also discuss possible habituation or expectancy effects of “challenge stressors”. Thus, we provide first answers to the SGM questions: c. What role do cognitive appraisal processes play in explaining the effects of challenge stressors and what other mechanisms should also be taken into account? And e. What is the role of time in the favourable and/or adverse effects of challenge stressors and how do they combine in the long term?

Finding the truly challenging time pressure: Introducing a multidimensional concept of time pressure with illegitimacy as a key boundary condition

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Research goals. This study presents a multidimensional concept of time pressure to resolve the inconsistent findings in the literature. Using action regulation theory, we delineate five distinct types of time pressure and examine their lagged and reverse effects on work engagement. Additionally, we examine the legitimacy of time pressure—a cognitive appraisal

posited as a crucial boundary condition in stress-as-offense-to-self theory (Semmer et al., 2019)—as a moderator determining the effects of certain time pressure types on engagement.

Theoretical background. In research on challenge and hindrance stressors, time pressure has predominantly been viewed as a challenge stressor. Achieving performance goals under time constraints seems to be the quintessential challenge scenario that, when successfully met, is associated with positive outcomes like pride and self-esteem (Pekrun & Perry, 2014), albeit accompanied by strain. However, empirical evidence for such positive effects is mixed. While some studies report positive findings (e.g., Prem et al., 2018), others reveal negative (Baethge et al., 2018), curvilinear (Sheng et al., 2019), or non-significant (Kronenwett & Rigotti, 2019) effects on, e.g., work engagement. We posit that one reason for the inconsistency is the heterogeneous nature of time pressure, which encompasses qualitatively distinct phenomena. Drawing on action regulation theory and Szollos' (2009) review of time pressure, we define five types of time pressure: primary task time pressure (PTT; core tasks taking longer than expected, requiring an extension of work time, deferral of deadlines, or resulting in missed deadlines), secondary task time pressure (STT; inadequate time for core tasks due to non-core tasks), being rushed by others (ROT; task time set or limited by relevant others at work), being rushed by situations (RST; situational events unexpectedly limit available time), and being rushed by oneself (RON; putting oneself under time pressure to finish a task in a desired time). We expect that especially PTT and RST should be a challenge stressor, whereas ROT and RON should be rather a hindrance stressor. Following Guthier et al. (2020), we also examine reverse lagged effects from work engagement. Furthermore, we hypothesized that the extent to which employees evaluate their time pressure as illegitimate undermines the challenge potential of the time pressure types as shown by Kern et al. (2023), thereby reducing the positive and aggravating the negative lagged effects on work engagement.

Methodology. We conducted a two-wave study with a two-week time lag. At T1, 234 individuals completed the survey, while at T2, 147 participants responded, resulting in a 62.8% response rate. Attrition analysis indicated that participant dropout was not selective. Therefore, missing data were assumed to be at random, and full-information maximum likelihood estimation was used to maximize statistical power. Structural equation modeling was employed to examine lagged and reverse lagged relationships between time pressure types and work engagement. The moderating effect of illegitimacy appraisal was tested using the LMS method (Klein & Moosbrugger, 2000), with each moderation tested separately to reduce computational complexity.

Results. Exploratory factor analysis with target rotation substantiated a five-factor model of time pressure, with intercorrelations spanning from .06 to .59. Cross-lagged panel analysis showed a negative lagged effect of RON on work engagement. No lagged effects were observed for the other types. Concerning reverse effects, we found negative reverse effects on ROT and on RST. Moderating effects of illegitimacy were found for the effects of PTT, ROT, an RST on work engagement. However, the moderation patterns were complex and will be presented and discussed in Graz.

Conclusions. Differentiating between various types of time pressure offers a promising pathway toward a deeper comprehension of this frequently referenced challenge stressor. The prevalence of numerous non-significant causal effects highlights the significance of incorporating moderators, such as stressor legitimacy. Moreover, the observation that only the “being rushed” scales were associated with reverse effects could be an important clue for improving theory. The findings may also assist practitioners in identifying appropriate support measures for employees to effectively manage their time pressure.

Relevance to the SGM topics. This study explores questions c, d, and f of the SGM. Specifically, we investigate the impact on work engagement, a variable related to both performance and well-being. Additionally, we examine illegitimacy as another type of cognitive appraisal and aim to enhance theory through the introduction of a multidimensional concept of time pressure.

Session 2 Understanding the favourable effects of challenge stressors

How and when daily challenge stressors promote employees' work engagement

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Research goals. With this study, we want to improve our understanding of whether daily challenge stressors actually enhance employees' work engagement. We further aim to contribute to the academic knowledge about the underlying mechanism and boundary conditions of these potential favourable effects of daily challenge stressors.

Theoretical background. A core idea of the challenge stressors—hindrance stressors framework is that challenge stressors, are not only associated with strain but also with motivation. Previous research investigating such favourable effects of challenge stressors has often relied on work engagement as an outcome and considered cognitive appraisal processes as underlying mechanisms. Using self-determination theory, we argue that it is important to additionally measure motivational processes directly. Furthermore, drawing on expectancy-value theory, we also introduce self-efficacy as a potential moderator in the motivational processes of challenge stressors that has thus far been largely neglected.

Methodology. A diary study with three daily measurements over two working weeks was conducted. Challenge stressors and self-efficacy were measured in the morning, intrinsic motivation and challenge appraisal during the afternoon, and work engagement at the end of the working day. A total of 728 complete day-level datasets from 118 working individuals were analysed using multilevel structural equation modelling techniques.

Results. The results showed that daily challenge stressors were positively associated with employees' work engagement. As expected, challenge appraisal mediated the daily relationship between challenge stressors and work engagement. In addition, intrinsic motivation was able to explain additional variance in daily work engagement beyond that explained by challenge appraisal. However, the indirect relationship of challenge stressors with work engagement via intrinsic motivation was also moderated by self-efficacy, such that challenge stressors were only associated with intrinsic motivation on days when self-efficacy was high.

Limitations. Like most research, our study has strengths and limitations. We consider the use of experience sampling methodology in a diary study to be one of the strengths of our study. However, a typical limitation of experience sampling methods and diary studies is that they often only allow researchers to gather self-reported data, which may raise concerns about common method biases affecting the study results.

Conclusions. Overall, the results of the present study suggest that it is important to also consider motivational processes in addition to cognitive processes when dealing with challenge stressors. Moreover, researchers and practitioners should be aware that at least some of the favourable effects of challenge stressors are depending on boundary conditions. In line with expectancy-value theory, the motivational potential of challenge stressors seems to depend on employees' day-specific self-efficacy.

Relevance to the SGM topics. The present study addresses several of the issues raised in the call for papers, including which mechanisms other than cognitive appraisal processes should be considered when explaining the effects of challenge stressors, and which boundary conditions play a role in the effects of challenge stressors.

Does strengths-based leadership help employees cope with challenge and hindrance stressors?

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Research goals. Drawing upon the challenge-hindrance stressor framework, we will test some of the basic assumptions of how stressors affect employees' sense of accomplishment and meaning. Moreover, while traditional leaders may tend to help employees who struggle with job stressors by focusing on their deficits, we want to investigate whether strengths-based leadership works as a boundary condition and may help employees to achieve a sense of accomplishment and meaning by using their strengths, even in the face of challenge and hindrance stressors.

Theoretical background. Stressors in the workplace are unavoidable, especially in this fast-paced and rapidly changing society but are not necessarily detrimental to employees' well-being. On the one hand, hindrance stressors such as organizational politics and red tape are usually considered as obstacles that stop employees from obtaining their goals. However, on the other hand, challenge stressors such as time pressure and job responsibility may also motivate employees to grow and develop themselves. Leaders have a key responsibility to provide employees with the resources to cope with their challenge-hindrance stressors. Especially relevant in the context of dealing with challenge-hindrance stressors are strengths-based leaders, who help employees to identify, utilize, and develop their strengths. Specifically, we propose that strengths-based leadership buffers the indirect negative relation between hindrance stressors and meaning via accomplishment but strengthens the indirect positive relation between challenge stressors and meaning via accomplishment.

Methodology. A total of 887 employees filled out the survey at two time points with a six-week interval.

Results. Structural equation modelling analyses partly supported our hypotheses. Strengths-based leadership indeed buffered the negative indirect effect of hindrance stressors on meaning through accomplishment, but it did not strengthen the positive indirect effect of challenge stressors on meaning through accomplishment.

Limitations. First, further research is needed using a three-wave time-lagged design or a field experiment to further explore the causality of our proposed mediation model. Next, our research relied on employees' self-report data which could give rise to common method variance issues, although our CFA results further demonstrated the construct validity of our

research model. Third, we adopted Cavanaugh et al.'s (2000) concept of challenge and hindrance stressors, although there is an ongoing discussion whether we can universally classify stressors as either challenging or hindering or whether we need to focus on employees' appraisal of stressors as challenging or hindering. Finally, we did not include various leadership styles which can further disentangle the issue of construct proliferation in leadership research.

Conclusions. Our study contributes to the literature on challenge-hindrance stressors and strengths-based leadership by exploring how strengths-based leadership works as a boundary condition of employees' reactions toward stress. Our research verifies strengths-based leadership is an important organizational resource that helps employees to face and tackle hindrance stressors directly to reduce their negative impact on task accomplishment and meaning. Our research also demonstrates that strengths-based leadership did not help to amplify the positive relations of challenge stressors on well-being outcomes, which can be due to the nature of challenge stressors. We suggest organizations pay attention to the regulation of challenge-hindrance stressors, and nurture strengths-based leadership so as to provide enough support for employees to cope with stressors effectively.

Relevance to the SGM topics. Our study is particularly relevant to the SGM topics as we adopt the challenge-hindrance stressor framework and delve into how stressors not only damage but also boost employees' well-being (meaning and accomplishment) when they are hindering or challenging. Moreover, we explored a boundary condition in which strengths-based leadership – leaders who help employees thrive at strengths –protects employees' well-being from being harmed by stressors.

Another perspective on the work environment: Combinations of challenge and hindrance demands and job resources and their link with well-being outcomes

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Research goals. Even though the literature has extensively stressed the importance of considering job demands and resources in a multivariate or integrative approach, few studies have empirically investigated the specific combinations of workers' psychosocial working conditions. This study proposes an examination of combinations of psychosocial working conditions, as well as their link with three major work-related well-being states. Particularly, this study considers three types of job demands (work pressure, cognitive demands, and hindering demands) and four job resources (learning opportunities, autonomy, supervisor support, and perceived utility) to obtain a holistic view of possible psychosocial work environments characterized by different combinations of hindrance and challenge stressors and resources. Furthermore, this study examines the longitudinal associations of these profiles with three well-known well-being states: work engagement, burnout (particularly its core dimensions – exhaustion and cynicism), and job boredom.

Theoretical background. This study draws on the Job Demand-Resources theory (Bakker and Demerouti, 2017) as well as on Karasek's (1979) theory.

Methodology. This study is based on a three-wave longitudinal design among 374 Belgian workers. We performed Latent Profile Analysis (LPA) to investigate the profiles of job

demands and resources, as well as repeated measure ANOVAs to investigate the longitudinal association of these profiles with well-being indicators.

Results. Preliminary results showed five combinations of working conditions, each characterized by the predominance of different types of demands and resources: (1) An autonomous, relaxed, but meaningless profile, (2) a hindered and under pressure with low resources profile, (3) a challenged, under pressure and meaningful profile, (4) an average profile, and (5) an averagely challenged, not hindered with high resources profile. With regards to well-being outcomes, levels of work engagement, burnout (exhaustion and cynicism), and boredom were found to significantly differ between profiles. Concerning work engagement, the (1) Autonomous, relaxed but meaningless and the (2) Hindered and under pressure with low resources profiles showed significantly lower levels of work engagement than the three other profiles. For both exhaustion and cynicism, the (2) Hindered and under pressure with low resources profile showed the highest scores, significantly differing from all the other profiles. Moreover, the (1) Autonomous, relaxed but meaningless profile showed significantly lower exhaustion than the (3) Challenged, under pressure and meaningful profile and higher cynicism than the (5) Averagely challenged, not hindered, with high resources profile. Concerning job boredom, the (1) Autonomous, relaxed but meaningless profile and the (2) Hindered and under pressure with low resources profile showed significantly higher scores than the (3) Challenged, under pressure and meaningful profile and the (4) Average profile. The (5) Averagely challenged, not hindered, with high resources profile showed significantly lower scores of job boredom compared to the (1) Autonomous, relaxed and meaningless profile and the (2) Hindered and under pressure with low resources profile. Outcomes levels did not show significant differences over time with one exception for the (3) Challenged, under pressure and meaningful profile where boredom increased from T1 to T3; and one exception for the (2) Hindered and under pressure with low resources profile, where work engagement decreased from T2 to T3.

A systematic review about resource-oriented mental-health promotion – Organisational- and individual-level workplace interventions and their effectiveness on increasing work engagement and well-being

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Research goals. This systematic review critically assesses the effectiveness of mental health interventions within workplace settings, distinguishing between organizational-level and individual-level applications. The primary objective is to explore how these interventions, whether digital or non-digital, influence work engagement and well-being across various organizational sizes. The research identifies optimal strategies for mental health promotion, tailored to different organizational structures, ultimately fostering a healthier and more engaged workforce.

Theoretical background. Amid growing concerns over mental health-related work absences, this study underscores the increasing significance of occupational health management. Leveraging the 'Integrated Approach to Workplace Mental Health,' which encompasses harm prevention, promotion of the positive, and response to problems, this research focuses particularly on the underexplored domain of promoting the positive. Utilizing the job-

demands-resources model, the study examines how resource-oriented interventions can positively affect work engagement and well-being. Initial meta-analyses suggest the effectiveness of these interventions, yet also raise questions about integrating organizational-level strategies amidst complex contextual factors. This inquiry extends to delineate the nuanced interplay between work demands and resources, elucidating the mechanisms through which resource allocation moderates the relationship between work stressors and employee outcomes. The framework of challenge versus hindrance stressors is instrumental in this context, guiding the categorization and evaluation of job demands.

Methodology. Adhering to PRISMA guidelines, this comprehensive systematic review surveys a decade of pertinent studies from key databases such as Scopus, PsycINFO, PubMed, and Web of Science, with additional manual searches in Google Scholar. Using a wide range of keywords and MeSH terms structured around the PICO framework, this methodology ensures a thorough investigation of both digital and non-digital interventions. The review focuses on the comparative effectiveness of interventions at different organizational levels and includes a meta-regression analysis to examine the moderating effects of organizational culture and structural variables on intervention efficacy. Given the significant influence of contextual factors on individual and organizational-level interventions, a narrative synthesis approach was selected.

Results. Initial findings highlight the substantial potential of digitally-oriented, organizational-level interventions in enhancing employee engagement and well-being. These interventions leverage technological advancements to provide scalable and customizable solutions suitable for modern workforces. The analysis also reveals variability in the effectiveness of interventions, with those implemented at the organizational level generally offering more consistent benefits. Further analysis will pinpoint the conditions and types of interventions that yield the most significant outcomes, providing crucial insights for their strategic application across various organizational contexts.

Limitations. The review acknowledges potential publication biases and varying methodological quality among the studies. The predominance of literature in English and German may limit the generalizability of the findings to other linguistic and cultural contexts, and the exclusion of unpublished and grey literature could overlook valuable insights. Additionally, measuring the long-term impact of these interventions poses a significant challenge.

Conclusions. The findings advocate for a strategic, context-sensitive approach to implementing mental health promotion interventions in workplaces. Particularly, the research underscores the effectiveness of digital interventions when customized to meet specific organizational needs and address challenge stressors. These insights offer robust, evidence-based recommendations for policymakers and practitioners, facilitating the practical implementation of strategies that significantly enhance workplace mental health outcomes.

Relevance to the SGM topics. This research directly contributes to the EAWOP SGM's focus, providing insights into the boundary conditions and effective interventions for managing challenge stressors. By offering a salutogenic perspective, it bridges academic-practitioner gaps, facilitating discussions that transform workplace challenges into opportunities for improving organizational health and employee development, thus setting a progressive agenda for future research and policy-making in occupational health.

Workplace stressors as triggers of stress inoculation: A conceptual model

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Research goals. We introduce a conceptual model of stress inoculation, where daily workplace stressors —given challenge-related stressor characteristics— are proposed to facilitate employees' resilience (i.e., their adaptation to future adversity) and thus, their health and functioning across life domains. In doing so, we follow two main goals. First, by elevating the concept of stress inoculation to a theoretical framework, we aim to advance our insights on the mechanisms which may explain the long-term effects of daily workplace stressors on employee resilience and health. Second, our goal is to contribute to the discussion on daily stressors within the work-nonwork enrichment literature, where enrichment is almost exclusively associated with (job) resources. With our model, we provide an explanation as to why and when workplace stressors may likewise trigger enrichment processes.

Theoretical background and propositions. The concept of stress inoculation suggests that just as exposure to pathogens strengthens immunity to infectious diseases, exposure to stressors of a certain quality may promote individual resilience. Coping with these stressors is therefore expected to relate to more favorable stress response patterns, facilitating resilience and long-term health. This inoculation effect is hypothesized to influence adaptation to many or all types of stress events and thus, to permeate across contexts (i.e., cross-inoculation). Combining the stress inoculation with the challenge-hindrance literature, our conceptual model makes the following main propositions: First, daily stressors relate to individual resilience across life domains via a serial mediation process. Specifically, daily stressors are proposed to trigger (informal) workplace learning, which in turn results in cognitive (e.g., knowledge representation), skill-based (e.g., automation) and affective (e.g., self-efficacy) resources, so that individuals may acquire a certain resource profile. The acquired resource profile is expected to facilitate resilience to future adversity across contexts. Second, to trigger inoculation —and not sensitization— via learning, daily stressors need to be of a challenging nature and thus, possess certain characteristics. Specifically, they may not exceed a moderate level of intensity, should be of intermittent nature, and should further be controllable, legitimate, and meaningful for the individual. Third, we further theorize on the boundary conditions that affect the likelihood of cross-inoculation. Specifically, we argue that the chances of cross-inoculation increase if the resource profile is balanced (i.e., contains different types of resources) and if resources are permeable in that they are applicable and adequate across multiple situations.

Implications. With this model, we introduce the concept of stress inoculation to the challenge-hindrance literature, providing a theoretical explanation of how (challenge) stressors at work may affect individual resilience and thus, employee health and functioning across life domains. Related, the proposed model offers an explanation why daily, seemingly minor workplace stressors may have such far reaching and long-term health consequences, namely by changing stress response patterns across contexts, either preventing or increasing the risk for allostatic load.

Relevance to the SGM topics. The conceptual model addresses multiple of the SGM's research questions (mainly questions b, c, d and f). By focusing on resilience and thus, response patterns toward future adversity it adds to the outcomes and mechanisms that have been assessed and theorized about in the challenge-hindrance literature thus far. In addition,

it emphasizes the role of (informal) workplace learning as a relevant mechanism which may explain how challenge stressors contribute to personal growth over time. Moreover, it refrains from an a priori classification of certain stressors as challenge stressors but rather theorizes on the boundary conditions that increase the likelihood of workplace stressors in general to act as challenge stressors, that is foster learning and development. Finally, it offers a theoretical framework for future studies that aim to investigate how daily workplace stressors affect employees' long-term health and functioning in the work and nonwork domain.

Session 3 Focusing on specific challenge stressors and contexts

Stress and decision making in an ER department

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This research aims to contribute further understanding on the effect of stress on the quality of decisions within a hospital Emergency Department using a naturalistic decision-making approach. It is part of a thesis made up of two studies, a qualitative study and a field experiment. Empirical research has studied the effect of stress on decision making principally within a laboratory environment. However, such research in a controlled environment does not capture in-depth cognitive appraisal processes. Croskerry (2002) claims that within an Emergency Department, the concentration of decision making is higher and more intense, compared to other departments within a hospital setting. Consequently, the effect of stress on decision making cannot be ignored. Therefore, an understanding of this phenomenon contributes to better practices and presents an opportunity to develop preventive measures for mitigating risks. In order to understand in-depth this phenomenon a comparative analysis was conducted between two stressful and dynamic contexts within a hospital environment - ER and a Planned Ward. The experience of fourteen physicians, seven working in ER and the other seven working in a more planned work environment such as outpatients or clinical practice, was investigated in detail. Semi structured interviews were conducted to answer the research question: How do physicians working in ER/Planned ward make sense of their experience of making decisions in such a work context? The questions focused on their phenomenological experience of making decisions within ER/planned wards such as how they perceive their work context; what are the challenges within such a work context; what strategies are used in making decisions. The experience of stress was conceptualised through the lens of the Conservation of Resources theory (Hobfoll, 1989). Naturalistic Decision Making (NDM) researchers' identification of the factors' characterization of decision making in naturalistic environments; namely ill-structured problems, uncertain/dynamic work contexts, ill-defined/competing goals, multiple event feedback loop, time constraints, high stakes, multiple players and organizational norms were used to conceptualise the work place (Orasanu and Connolly, 1993). A reflexive thematic analysis (Braun and Clark, 2006), using NVIVO was conducted and the following themes emerged from the analysis; i) Variances within work context with a subtheme of stress; ii) Individual variances with the subthemes –

personality and human element iii) Resource loss with the subthemes; suppression of emotions; time pressure; loss of cognitive resources over time; iv) Resource Gain with subthemes of strategies in decision making; guidelines; experience gained with time; and intuition. The concept of time in the short term was seen as a detrimental loss of resource, leading to making fewer quality decisions, whilst in the long term it was regarded as a gain due to the accumulated experience, which assisted in making better decisions. Shipp and Cole (2015) highlighted the necessity for a deeper understanding of the relationship between time and job-related outcomes. A general finding of this research was the subjective and varied approach in sensemaking within these work contexts. Other findings indicate that elements of resource loss in one context were interpreted as resource gain in the other context. The main limitation of this research was confidentiality, in the sense that participants might have held back from discussing sensitive issues. The main implication of this research is the need to conduct more research within a naturalistic environment in order to gain a deeper, more realistic understanding of this phenomenon. Such an understanding will result in the development of effective policies and interventions.

Relevance to SGM topics. Such research is relevant to the following questions posed by the SGM: What role do cognitive appraisal processes play in explaining the effects of challenge stressors and what other mechanisms should be considered? What boundary conditions play a role in the effects of challenge stressors and what interventions could enhance favourable effects and/or buffer adverse effects? What is the role of time in the favourable and/or adverse effects of challenge stressors and how do they combine in the long term? What advances in theory and/or methodology are needed to further our understanding of challenge stressors?

Academics' experiences of and attempts to manage their work-related anxiety: An examination of challenge/hindrance-informed job crafting approaches

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Research goals. How do anxious workers interpret challenge/hindrance stressors? Is such a framework meaningful to anxious workers? How does employees' work-related anxiety motivate job crafting practices to regulate their anxiety? What are the wider implications of such job crafting practices for other work outcomes (e.g., relations with colleagues, career progression, performance)?

Theoretical background. There has been renewed interest in researching workplace anxiety, partly because of a concern that we are living in an age of increasing anxiety (Cheng & McCarthy, 2018). Most anxiety research from a stress perspective positions anxiety as strain (i.e., an outcome to stressors). While anxiety is recognized as a crucial motivator of behaviour (Lazarus, 1991), it is underexplored as a cause of workplace behaviour (e.g., Cheng & McCarthy, 2018). Furthermore, organizational research has largely assumed employees passively accept anxiety and stressful conditions (Sonnetag et al., 2023) and overlooked that people anticipate strains and take actions (Rosen et al, JAP 2020). Viewing job crafting practices from the perspective of anxiety identifies shortcomings in current ways of conceptualising job crafting, given that challenge/hindrance stressor models underpin major job crafting approaches (e.g. Tims et al.'s, 2012, job demands–resources approach). Job crafting research has approached improving employees' working lives in a somewhat value-

laden and managerialist sense (e.g., taking on challenging new projects, seeking supervisor performance feedback, withdrawing from certain hindrances, Tims et al., 2012). Such practices, however, may raise red flags to anxious workers. For example, withdrawing from hindrances may succeed superficially in avoiding fears but at the same time re-enforce their fears and undermine their efficacy to manage anxiety; taking on challenges may trigger threats and uncertainty and thereby add to their anxiety. We therefore need to better understand whether anxious workers interpret stressors in challenge-hindrance terms, or whether there are more appropriate alternative conceptualizations, and how work-related anxiety shapes job crafting and its efficacy in addressing outcomes.

Methodology. We used a qualitative method because there is little research exploring how anxious workers interpret challenge/hindrance stressors and the perceived links between anxiety at work and job crafting. The primary data for this study were 23 semi-structured interviews (which we will increase to about 35 participants by the time of the SGM). We sampled academics working at six business schools in research-intensive UK universities. Participants had to fulfil certain sampling criteria of above-average anxiety, which was assessed using a pre-interview questionnaire. Each interview lasted around 60 minutes. Data analysis is currently underway and will be completed by the time of the SGM. We will analyse the interviews using the Nvivo software package and follow qualitative data analysis procedures as outlined by Braun and Clarke (2006), a widely used approach to thematic coding of qualitative data.

Results. Preliminary findings indicate that academia is not a safe space for people prone to anxiety. The academic environment has many lurking threats (e.g., journal rejections, criticisms from students, fears about probation/promotion, academic gossip, expectations to fulfil too many difficult performance criteria) and uncertainty (vagaries of how performance will be interpreted by journals, students and academic managers). Challenge/hindrance stressors and conventional job crafting strategies are limited in accounting for the stressors faced as participants reported it was often not possible to avoid hindrances in the environment without violating key performance requirements, and challenging tasks were often perceived as increasing performance anxiety. Instead, findings suggest that job crafting responses to anxiety are better grounded in the key concerns of workers affected by anxiety, such as viewing job crafting through lenses of handling threats and uncertainties and attempting to change job parameters accordingly.

Limitations. Findings are specific to UK academics, and to those who report high levels of anxiety.

Conclusions. Our findings challenge the appropriateness of challenge/hindrance stressors in accounting for anxiety. Instead, stressors and resultant job crafting need to be understood in terms of the prevailing concerns of anxious workers. More generally, such models need to be customized to fit core motivational orientations (here anxiety, but by implication depression, etc). We consider the practical difficulties managers face in responding to anxious workers' needs.

Relevance to the SGM topics. Our paper addresses SGM questions relating to how challenge/hindrance stressors should be understood for anxious workers, and how these stressors shape resultant job crafting behaviour.

Underperformance in the framework of challenge-hindrance stress model

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Underperformance, defined as not meeting expected work standards (Pindek, 2020), is commonly examined as an outcome. However, underperformance can be referred to as a stressor, serving as an antecedent of well-being outcomes. This study examines underperformance as a stressor within the Challenge-Hindrance model, which categorizes job stressors into challenge-related and hindrance-related stressors (Cavanaugh et al., 2000). Challenge-related stressors are linked to positive work outcomes, while hindrance-related stressors are associated with negative outcomes like turnover intentions. This study proposes that underperformance, though not a-priori categorized as a challenge or a hindrance, can provoke different responses based on individual perceptions and attributions. Kluger and DeNisi (1996) note that negative feedback can lead individuals to focus on or disengage from a task, depending on whether the attribution is task-related or self-related. Similarly, perceived underperformance can elicit varied responses based on attributions or appraisals. Additionally, Mazzola and Disselhorst (2019) emphasize the importance of understanding stressors from individual perspectives rather than fixed classifications. The study aims to explore whether underperformance can indeed be appraised as a challenge or hindrance by considering impostor syndrome and stress mindset as predictors of these appraisals. Impostor syndrome, characterized by feelings of inadequacy and self-doubt (Clance & Imes, 1978), might lead to a hindrance appraisal due to its negative impact on self-confidence and task engagement. On the other hand, stress mindset, representing one's perception of stress's nature and impact (Dweck et al., 1995), might lead to a challenge appraisal, where stress becomes an opportunity for growth and improvement.

Methodology. The research sample comprised 127 employed students (full or part-time), recruited from Northern Israeli Colleges. The sample was mostly female (76%). On average, participants were 29.39 years old ($SD = 10.36$) with an organizational tenure of 7.18 years ($SD = 7.88$). Of the 273 who agreed to participate in the study, 93 were excluded because of missing data and 53 were excluded because they were not currently employed, resulting in a sample size of 127. All questionnaires used a 5-point Likert scale ranging from 1 (Very much disagree) to 5 (Very much agree). The questionnaires assessing Perceptions of Underperformance as Challenge and as Hindrance are new, while the questionnaires of impostor syndrome (Clance, 1985) and stress mindset (Crum et al., 2013) were taken from the research literature and were translated to Hebrew using the backtranslation method (Brislin, 1980).

Results. Confirmatory factor analyses (CFAs) were used to confirm the structure of the measurement model, using the AMOS software, version 21.0.0 (Arbuckle & Wothke, 1999). Results indicate a superior fit of a four-factor model, where items load only on their intended latent variables, compared to a single-factor ($\Delta\chi^2(6) = 394.85, p < .001$) and three-factor ($\Delta\chi^2(6) = 131.28, p < .001$) model (combining appraisals as hindrance and challenge) across all indices (Hu & Bentler, 1999). Next, the pattern of correlations and regression analyses were examined to support the proposed relationships among the variables. As expected, stress mindset was positively correlated with the appraisal of underperformance as a challenge, while impostor syndrome was positively correlated with the appraisal as a hindrance. Interestingly, impostor syndrome also had a positive correlation with the appraisal as a challenge (although not in a regression that controlled for stress mindset), suggesting complex

dynamics in how underperformance is perceived. Appraisals as a challenge and as a hindrance were negatively correlated.

Discussion. The current study demonstrated that underperformance can be viewed by employees as a challenge as well as a hindrance (both with average rating near the scale's mid-point), and that these appraisals are distinct. Despite the theoretical assumption that failing is derailing, it seems that this is not necessarily the case. Underperformance can sometimes be viewed as a challenge stressor -an obstacle that, rather than demoralizing employees, can inspire them to improve their performance. This perspective suggests that when individuals fall short, it can ignite a drive to excel, triggering a boost in motivation to correct errors and strive for success in the future. This study, though limited by a small sample size, focusing on students, and relying on self-reported data, has important implications for organizations. Understanding individual perceptions of underperformance can help design tailored interventions to manage workplace stress. By promoting a supportive culture and encouraging a positive stress mindset, organizations can transform underperformance into a catalyst for growth, ultimately benefiting both employees and productivity.

Challenge or hindrance? Idle time in movie theaters

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Research Goals and Theoretical Background. Idle time at work is a common workplace phenomenon in which employees are unable to perform their core work tasks for reasons beyond their control. Therefore, we propose that idle time is a stressor and that its appraisal, based on the challenge-hindrance stressor framework, determines how it affects employees. We argue that employees appraise idle time as a hindrance rather than a challenge, because employees are hindered from working on their core tasks for reasons beyond their control. Therefore, idle time may be negatively associated with challenge appraisals and, in turn, negatively associated with employees' positive affect, problem-focused coping, subjective performance, and job satisfaction. Idle time may be appraised as a hindrance stressor, which in turn may be positively related to employees' negative affect and venting and negatively related to performance and job satisfaction.

Methodology. A particular workplace characterized by regular periods of idle time is the movie theater. In 2022 and 2023, we conducted a diary study in several German movie theaters over the course of 10 shifts per person (N = 32, observations = 256).

Results. Results from a latent mixed model structural equation model showed that idle time as an event (at the within-person level) was neither a challenge nor a hindrance to employees. Idle time showed a direct and a total negative effect on fatigue at the within-person level. As a relatively stable job characteristic (at the between-person level), idle time was associated with lower challenge appraisal but not with hindrance appraisal. Idle time was associated with lower challenge appraisal and showed total negative effects on vitality and job satisfaction. However, because we found no direct or indirect effects, challenge and hindrance appraisals may not explain the mechanisms behind the effects of idle time.

Limitations. Our study is limited by a relatively small sample size, which may limit the generalizability of the findings to a broader population. In addition, measuring the variable only once per day may not capture the full range of potential fluctuations, and the

observational design limits the ability to identify causal relationships. Future research should recruit a larger sample and use multiple measures per day to capture a more dynamic picture. Ideally, a randomized controlled trial would assess causality.

Conclusions. Idle time negatively affects employees' well-being, but not their behavior and should be avoided if possible –by both employees and managers. Idle time was associated with lower, not higher, challenge appraisal, which is an interesting finding because one would expect a positive association with either challenge or hindrance appraisal. However, because we did not examine the reasons for idle time, future studies need to examine the reasons for idle time in order to determine how different reasons may affect employee outcomes differently and to better prevent them.

Relevance to the SGM topics. It is important to identify the consequences and the varying appraisals of seemingly neutral work characteristics, such as idle time, to determine their impact on employee well-being and behavior. Not being able to work during working hours has the potential to be stressful but also to be a resource. Organizations, managers, and employees need to identify ways to prevent idle time or to make good use of it. Although idle time may be a job stressor, it may resist classification as a challenge or hindrance stressor.

The experience of idle time as an intermediate process between work constraints and well-being outcomes

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Research goals. In recent years, research investigating involuntary non-work phases at work, namely idle time, has increased. Idle time is described as an aversive experience found in a wide range of occupations and having detrimental effects on individuals and organizations. One step in understanding the nature of this phenomenon was the development of a theoretical framework which conceptualizes idle time as a consequence of work constraints and reducing occupational well-being and performance. However, these propositions have not been empirically validated, especially regarding antecedents. The goal of this study was to investigate the relationship between different kinds of work constraints and idle time and, in turn, boredom and fatigue. The research question was twofold: firstly, whether all kinds of work constraints lead to idle time and, secondly, whether all idle time is necessarily negative.

Theoretical background. We grounded our hypotheses in the conceptual model of idle time which is based on action regulation theory. The model suggests that all kinds of work constraints are positively related to idle time, whereas idle time is negatively related to occupational well-being. These relationships should be moderated by individual strategies, such as proactive and adaptive behavior. The rationale behind this is that work constraints are considered one of the most common job stressors and inhibit individuals' goal-directed behavior. The inhibition of goal-directed behavior leads to idle time, a period at work during which no work-related tasks can be done. Researchers have been differentiating objective idle time (as a work situation or stressor) and subjective idle time (as an appraisal of this situation). This is in line with Affective Events Theory which argues that negative work events, such as work constraints, do not always lead to negative emotions, such as boredom and fatigue. Individual perceptions, such as the subjective experience of idle time, may have an important impact on this relationship. Thus, we hypothesize that different kinds of work constraints,

namely job context, interpersonal and market constraints, are differently related to idle time. Idle time should be positively related to boredom, and fatigue. We suggest that proactive and adaptive behavior moderates these relationships.

Methodology. To test our hypotheses, we conducted a two-year longitudinal study with $n = 1,433$ participants at 19 measurement occasions. We analyzed our data with linear mixed mediation models. We specified random intercept, fixed slope models, and centered the predictors to separately testing within- and between-person effects. Finally, we lagged the mediator by one measurement occasion and the outcome variables by two.

Results. We were able to identify three dimensions of work constraints, each of which was associated with idle time. More specifically, market constraints (i.e., a lack of customers, lack of demand for products or services) and job context constraints (e.g., missing information, or technical breakdowns) were both positively related to idle time which, in turn, was positively associated with boredom and fatigue. In contrast, interpersonal constraints (e.g., interruptions by others) were negatively related to idle time and indirectly negatively related to boredom and fatigue. The relationship between interpersonal constraints and idle time was moderated by proactivity in that higher levels of proactivity strengthened the negative association.

Limitations. One limitation of our study was that we only investigated negative well-being outcomes, which prevented us from identifying the potential for idle time to act as a challenge stressor. One implication for theory and practice is that work constraints should be considered within several subgroups. Our findings indicate that not all types of work constraints are related to idle time or negative well-being states. This broadens the theoretical framework of idle time on the one hand and, at the same time, leaves several possibilities open to improve work design regarding work constraints.

Conclusions. In conclusion, the effects of work constraints on boredom and fatigue were diverse. Not all kinds of constraints showed detrimental effects on our proposed negative well-being states. Some of the relationships were mediated by subjective idle time. Even though work constraints have been considered hindrance stressors in most research, we did not find exclusively negative effects on well-being. It is important to note that the absence of negative effects does not necessarily imply that work constraints should be classified as challenge stressors. However, we encourage researchers to pursue this idea further. Additionally, research on idle time is still in its infancy. Despite the predominantly negative effects on well-being outcomes observed in this study, other studies have demonstrated that idle time may act as a double-edged sword which can also have potential positive correlates.

Session 4 Looking into moderators and effects over time

Proactive personality in the stress process: Examining challenge and hindrance stressors

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Research goals. We aim to examine the role of proactive personality in the stress process, and how it might shape the stress response to challenge and hindrance demands.

Theoretical background. Based on the job demands-resources model (JD-R model) and the challenge-hindrance framework, we expect a moderating effect of proactive personality in the relationship of typical challenge stressors (time pressure and job complexity), typical hindrance stressor (role ambiguity) and strain (emotional exhaustion and irritation) or appraisal. Proactive personality is conceptualized as the tendency to actively engage with work, including stressors, to yield better outcomes. Because proactive individuals are future-oriented and engaged, we expect them to be better able to deal with demands by engaging in planning and by investing more effort. Investing effort will help to deal with both types of stressors. Planning will be particularly effective in dealing with challenge stressors.

Methodology. 202 German employees provided data in a field study, and rated levels of stressors, strain and proactive personality, using established scales (e.g. ISTA). 297 employees rated challenge and hindrance appraisal in an experimental scenario study, using scenarios of working under time pressure, role ambiguity, or without stressors.

Results. In the field study, proactive personality buffered the effect on role ambiguity on emotional exhaustion and of time pressure on irritation, while it exacerbated the effect of complexity on emotional exhaustion. The scenario study showed no buffering effects in the relationship of stressors with challenge or hindrance appraisal, but proactive personality was related to higher challenge and lower hindrance appraisal, irrespective of scenario. Role ambiguity was perceived as more hindering than time pressure.

Limitations. Due to the cross-sectional nature of the field study and lack of data in the lab study, no causal conclusions concerning strain can be drawn. The self-reports of stressors might be distorted in the field study, which might explain differences in findings concerning buffering effects

Conclusions. The results show limited support for the buffering effect, questioning the classification of proactive personality as a personal resource. Moreover, the lack of buffering effect questions whether planning and investing effort are functional in dealing with demands, as we assumed. Results show some support for the challenge-hindrance framework.

Relevance to the SGM topics. Focusing on proactive personality and how it shapes response to stressors might shed light on the motivational and action processes involved in dealing with stress, such as heightened effort investment and more planning. The motivational and action processes will help us better understand when individual appraise typical challenge stressors as challenging.

How employee exhaustion predicts stressor perception and appraisal: A scenario-based approach

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Research goals. Recent meta-analytic evidence of longitudinal studies (Guthier et al., 2020) shows that employee exhaustion predicts increases in job stressors over time, suggesting that more exhausted employees tend to perceive stressful situations as more severe than less exhausted employees. In the present study, we explicitly test this implicit assumption, using a set of sixteen written job-stressor vignettes that describe four main job stressors (i.e., quantitative workload and job complexity as challenge stressors and situational constraints

and social conflicts as hindrance stressors). In addition, the vignette approach allows us to examine the effects of objective stressor intensity on cognitive appraisal processes.

Theoretical background. The core idea behind job stress research is that job stressors cause strain reactions in employees, thus impairing well-being. For instance, high workload is thought to increase employee exhaustion because employees need to invest energy to manage it. However, recent research points towards reversed-causal or reciprocal relationships between job stressors and employee well-being such that decreases in well-being predict increases in job stressors over time. These results suggest that how employees feel may influence how they perceive job stressors. In the current study, we explicitly test whether employee exhaustion predicts how employees perceive job stressors, using written job stressor scenarios with varying objective intensity levels. We expected employees with higher exhaustion to rate job stressors as more intense, less challenging, more threatening, and more hindering. Moreover, we expected more exhausted employees to rate their ability to deal with the stressors (i.e., secondary appraisal) as lower, and the degree to which they expected the described situations to cause strain (i.e., expected strain) as higher than less exhausted employees. Finally, we expected that exhaustion would interact with objective-stressor intensity in predicting stressor rating and appraisal.

Methodology. We first validated the four sets of written job-stressor vignettes in three samples (i.e., and expert sample, a student sample, and an employee sample; Studies 1-3). We then tested our main hypotheses in a sample of 200 German-speaking employees that we asked to read and evaluate the job-stressor vignettes (Study 4).

Results. Results of Studies 1-3 showed that the job-stressor vignettes are valid representations of the respective job stressors. In Study 4, results of Bayesian multivariate cross-classified multilevel models confirmed that employee exhaustion was associated with higher intensity ratings, higher threat and hindrance appraisal, and higher expected strain. Exhaustion neither predicted challenge nor secondary appraisal. Separate additional analyses for the four different stressors largely mirrored the results of the overall analysis but also revealed some distinct associations between challenge and hindrance stressors as well as between the two challenge stressors (i.e., quantitative workload and job complexity). Interestingly, objective stressor intensity was differently related to challenge appraisal in quantitative-workload and job-complexity scenarios, respectively.

Limitations. The main limitation of our study is that the use of written scenarios raises the question of external validity. Second, the items used for challenge appraisal largely referred 'learning something' as an aspect of challenge appraisal and disregarded other aspects of challenge appraisal such as feeling motivated to master a difficult situation. This fact may account for the non-significant findings regarding challenge appraisal.

Conclusions. Our results imply that employee exhaustion may influence how employees perceive and appraise job stressors. Specifically, exhaustion seemed particularly important for negatively-valenced outcomes such as hindrance and threat appraisal but not for more positively-valenced outcomes like challenge and secondary appraisal. Future research should examine whether positive well-being indicators predict challenge and secondary appraisal. Moreover, each of the used vignettes displayed one stressor in isolation. Future research should examine how more complex situations characterized by multiple stressors are appraised by employees. For practice, our results suggest that employee exhaustion plays a key role for how employees perceive job stressors. Thus, organizations should make sure that employees' have enough time to restore impaired energy levels, for instance by reducing

intrusions during off-job hours and by providing time and space for breaks during the workday.

Relevance to the SGM topics. Our study contributes to three of the SGM topics: By examining the effects of objective stressor intensity on challenge appraisal in quantitative-workload and job-complexity scenarios, we contribute to the question which job demands should be classified as challenge stressors. Second, we shed light on the cognitive appraisal process by examining predictors of different kinds of appraisal. Finally, by using experimental vignette methodology, we hope to stimulate research and discussion on methodological advancements in the study of job stress.

Exploring the effects of midday cognitive demands of flexible work on afternoon and evening positive and negative affect: A 10-day diary study on the moderating roles of stable burnout and engagement

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Research Goal. This study examines the challenge effects associated with daily cognitive demands of flexible work (CODE; Prem et al., 2021). Accordingly, we integrate the challenge-hindrance framework (CH-F; e.g., Podsakoff et al., 2023) with the job demands-resources theory (JD-R; e.g., Bakker et al., 2023). More specifically, we investigate the moderating role of stable well-being indicators (conceptualized as burnout and engagement) regarding daily challenge demands (conceptualized as CODE). Specifically, we hypothesize that higher midday CODE are more likely to predict higher afternoon and evening positive affect for individuals with higher stable engagement. Conversely, we predict that higher midday CODE is more likely to predict higher afternoon and evening negative affect for individuals with higher stable burnout.

Theoretical Background. Flexible working conditions are assumed to involve both personal gains and losses for employees (Dettmers and Bredehöft, 2020; Prem et al., 2021). The CODE concept was developed to illuminate the underlying processes through which flexibility-related information processing demands may involve both motivational and strain outcomes (Prem et al., 2021; Kubicek et al., 2021). Examples include demands for: planning of working times, planning of workplaces, structuring of work tasks, and coordination with others (Prem et al., 2021). Specifically, CODE are defined as a challenge demands that can involve both motivational and straining outcomes (Prem et al., 2021; Kubicek et al., 2021). However, emerging evidence shows that CODE outcomes are usually either motivational or straining, but rarely both (e.g., Kubicek et al., 2022; Uhlig et al., 2023). Hence, these findings challenge the traditional reasoning that cognitive demands can be conceptualized as challenge demands that involve simultaneous personal gains and losses (Kubicek et al., 2023). Therefore, we propose that stable well-being indicators may be helpful in explaining the emergence of (un)favorable outcomes of CODE (e.g., Bakker et al., 2023). Additionally, we focus on dynamic well-being outcomes, such as daily positive and negative affect, which are particularly fluctuating. A focus on affective outcomes broadens the scope of research on outcomes related to CODE beyond for example energetic factors, such as engagement or exhaustion, and offers a more holistic view of how CODE impacts employee well-being (e.g., Sonnentag et al., 2023).

Methodology. To test our assumptions, we conducted a 10-day diary study using three daily measurement points. Only individuals who answered all three daily measurement points and provided at least two complete daily entries were included in the final sample, resulting in 627 three paired observations (midday, afternoon and evening) from 137 employees. Preliminary Data analysis was performed using multilevel path modeling in Mplus.

Results. Our preliminary results indicate that people who experience higher demands for structuring work tasks in the midday are more likely to experience higher positive and lower negative affect in the evening. In addition, higher demands for coordinating with others in the midday predicted a higher daily negative affect in the evening. Additionally, midday demands for planning of working places resulted in higher positive affect in the evening for persons with higher engagement, whereas, against expectations, midday demands for coordinating with others resulted in lower negative affect for persons with higher burnout.

Limitations. The primary limitation of our study was the reliance on self-reported measures for cognitive demands, which may also involve subconscious cognitive processes (e.g., Rau et al., 2021).

Conclusion. Our preliminary findings are in line with those of previous studies (e.g., Kubicek et al., 2022; Uhlig et al., 2023), indicating that CODE is unlikely to be ambivalently related to employee well-being. This challenges the ambivalent view of challenge demands. The moderating effects of stable burnout and engagement are partially supported. Future studies might benefit from investigating how gain and loss cycles regarding CODE might unfold over longer timeframes.

Relevance to SGM Topics. First, we provide empirical evidence on workplace characteristics (i.e., CODE) that seem to unfold both resource-like and challenge-demand-like consequences (e.g., Uhlig et al., 2023). Second, we provide empirical evidence on recent theorizing that stable well-being significantly shapes responses to daily challenge demands (Bakker et al., 2023). Third, our research utilized a robust diary design with three daily measurement points, allowing for a nuanced investigation of the daily dynamics of CODE.

The effects of time pressure and next-day work outcomes: The mediating role of work-home integration

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Research goals. A considerable share of employees is faced with high time pressure. Working under tight deadlines, with a faster pace and with increased effort is especially prevalent among highly educated employees. In the present diary study, we aim to test how employees (in particular, knowledge workers) deal with time pressure at work and how this affects their well-being, motivation, and performance the following workday. More precisely, we investigate whether cognitive and/or behavioral engagement in work during off-job time (i.e., work-home integration) represents a linking mechanism. Given that daily within-person relationships may not be homologous to person-level relationships and favorable as well as adverse effects of time pressure may unfold on different time scales, we test if our findings are consistent across both levels.

Theoretical background. Within the challenge-hindrance framework of job demands, time pressure can be considered a prototypical challenge demand. On the one hand, it is proposed to create strain. On the other hand, it is expected to elicit positive outcomes such as enhanced motivation and performance. Previous research has provided some support for these notions, yet the favorable outcomes are far less established. The mechanism explaining why time pressure can lead to unfavorable and beneficial outcomes at the same time, however, are even less clear. In the present contribution, we propose that one possible pathway through which these outcomes can emerge is work-home integration. Based on boundary theory, work-home integration is reflected in the extent to which employees cognitively and/or behaviorally engage in one role (e.g., work) while being physically located elsewhere (e.g., home). As employees usually respond to time pressure with intensive (i.e., increasing effort) and extensive effort (i.e., extending work hours), we propose that time pressure forces employees to engage in their work during off-job time. This in turn prevents recovery from work and can lead to greater strain the following workday. At the same time, work-home integration can serve as a coping mechanism helping employees to complete work tasks during off-time which subsequently can lower future time pressure and prevent unfinished tasks. This in turn is expected to have positive effects on motivation and performance.

Methodology. We conducted a daily diary study over 10 workdays (N=116) among knowledge workers working in a hybrid working arrangement. Time pressure, exhaustion, work engagement, in-role and creative performance were reported daily after work. Work-home integration was assessed every morning and reflected the extent to which employees were engaged in their work during off-job time during the previous afternoon and evening. The dataset was restructured in order to test legged mediation effects on time pressure on all four outcomes through work-home integration.

Results. As predicted, time pressure has a positive effect on next-day exhaustion through work-home integration. Support for beneficial effects was not found. These results, however, need to be considered as preliminary, as the analyses are still in progress.

Limitations. The present study included only self-reported measures. When measuring aspects of job performance, in particular, this can lead to biased assessments. The sample of employees was highly educated and worked in a hybrid setting in which employees daily switched between office and remote work. This limits the generalizability of our findings. Finally, work-home integration was measured via psychological detachment from work. Ideally, work-home integration should be assessed via work-related activities and cognitions during off-job time. A better alternative to our measurement approach would also be the assessment of ICT-assisted supplemental work.

Conclusions. Our research casts doubt on the positive implications of time pressure. It, however, can encourage a scientific debate on the role of one's activities during off-job time within the challenge-hindrance framework.

Relevance to the SGM topics. The present study deals with time pressure which is proposed to act as a challenge stressor. It expands our understanding of its effects by focusing with four different work-related outcomes. Additionally, it takes the role of time into account by looking at daily lagged effects and aggregated cumulative effects.

Work stressors and burnout: A study of longitudinal within-person dynamics

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Background and Research Aims. Stress-based theories posit that job stressors are a central cause of burnout. Work stressors are often categorized into challenge stressors (e.g., workload) or hindrance stressors (e.g., role ambiguity). Although both types of stressors should lead to strain, challenge stressors, unlike hindrance stressors, should also lead to individual gains. Studies have suggested that, due to these gains, challenge stressors have a lower adverse effect on burnout compared to hindrance stressors. However, theoretical assumptions of strain effects question the effect of stressors on burnout altogether. These approaches suggest that burnout leads to an increase in job stressors, rather than the traditional view that work stressors lead to burnout. To date, the association between challenge and hindrance stressors and burnout remains unclear due to three limitations. First, studies commonly neglect reciprocal within-person effects. This limitation appears problematic as theories predict within-person changes rather than associations of stable traits. In addition, the neglect of reciprocal effects may have led to a misinterpretation of the direction of causality. Second, given that clinically relevant burnout may develop over months rather than weeks, previous literature lacks insights into the development of burnout over a plausible timeframe. Third, previous findings have mostly been obtained from theoretically and methodologically limited measurement models of burnout. These studies have often conceptualized burnout by focusing on exhaustion as a proxy of burnout, which may have limited the interpretability of findings. Therefore, in this study, we draw from the challenge-hindrance stressor framework and stressor-based and strain-based approaches to investigate reciprocal within-person effects between workload (a typical challenge stressor), role ambiguity, social stressors, organizational stressors (hindrance stressors), and burnout. In line with meta-analytic findings and theoretical assumptions of strain effects, we hypothesize that the effect of burnout on increased stressors is stronger and more plausible than the effect of stressors on increased burnout. Furthermore, we expect that this strain effect is independent of whether stressors are categorized as challenge or hindrance stressors.

Method. We obtained longitudinal data from 2131 German-speaking employees (1197 complete cases over two, 916 over three, 856 over four, and 595 complete cases over all five time points). The data was gathered at five time points with six months lags between 2018 and 2020. After the evaluation of model fit and measurement time invariance, we extracted factor scores to test the hypothesis in a model-building approach. We compared model fits between traditional *cross-lagged panel models* (CLPM) and the *random intercept cross-lagged panel model* (RI-CLPM) with increasing path constraints. To evaluate our *informative hypotheses*, that the effect of burnout on stressors is more plausible than the effect of stressors on burnout, we used a recently proposed causal dominance analysis approach that builds on the RI-CLPM.

Results. While the CLPM would suggest reciprocal associations between workload and burnout, the results from the better-fitting RI-CLPM only supported the effects of burnout on workload. Moreover, the results show that increased burnout was consistently associated with subsequently increased work stressors (i.e., workload, role ambiguity, social stressors, organizational stressors) rather than the effect of these stressors on subsequently increased burnout. In support of our hypothesis, the results of the causal dominance analysis suggested

that the effect of burnout on stressors had 1.87 to 3.35 times more support than the effect of stressors on burnout.

Limitations. The longitudinal design is a key strength of this study, but we cannot discount the effect that any omitted variables, such as job and personal resources, might have. Although the RI-CLPM is somewhat robust against common method variance, self-reports may still limit the interpretation of our findings. The sample at T1 was representative of the Austrian and German population in terms of age, gender, and income but not in terms of industries or occupations. Finally, our results suggest that the six-month lag may be sufficient to capture changes in burnout but too long to capture changes in work stressors, leaving open the question of optimal lags.

Conclusion. Our results support strain-based assumptions while questioning stressor-based assumptions of burnout development. Furthermore, by consistently showing that burnout led to increased stressors (regardless of the type of stressor), our findings challenge the traditional view that work stressors cause burnout. These findings also call into question the necessity of distinguishing between challenge and hindrance stressors when aiming to understand the emergence of burnout.

Relevance to the Small Group Meeting. First, this study offers causal inference and causal dominance information regarding the association between challenge and hindrance stressors and employees' psychological health. Second, by providing an empirical evaluation of different time lags from 6 to 24 months, this study offers insights into the meso-term and long-term effects of stressors on burnout. Finally, this study emphasizes the importance of using methodological approaches that allow for the test of reciprocal within-person effects to better understand the consequences of stressors and burnout.

Impressum and Copyright



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