



Coping with Work Stress Brought Home:

The Role of Supplemental Evening Work, Leisure Activities and Social Support for Well-Being

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by

CYRIL MARTIAL ERNST CHARIATTE

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Expert committee composition:

Thesis director – Prof. Dr. Laurenz Linus Meier, University of Neuchâtel, Switzerland

Internal examiner – Prof. Dr. Maike Debus, University of Neuchâtel, Switzerland

External examiner – Prof. Dr. Christine Syrek, Hochschule Bonn-Rhein-Sieg, Germany

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La Faculté des sciences de l'Université de Neuchâtel
autorise l'impression de la présente thèse soutenue par

Monsieur Cyril CHARIATTE

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sur le rapport des membres du jury composé comme suit:

- Prof. Laurenz Meier, directeur de thèse, Université de Neuchâtel, Suisse
- Prof. ass. Maïke Debus, Université de Neuchâtel, Suisse
- Prof. Christine Syrek, Hochschule Bonn-Rhein-Sieg, Allemagne

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Abstract

Work stressors affect the health of employees and also shape their private lives. In this dissertation, I address specific stressors and coping strategies to examine their effects on well-being at bedtime. In the first study, the impact of unfinished tasks on well-being is discussed and the role of supplemental evening work and experienced goal progress is investigated. A diary study on 240 employees over 10 working days demonstrates that unfinished tasks lead to more tension. Resuming work-related tasks in the evening increases fatigue and tension. If goal progress is felt during the work effort, the detrimental effects on well-being are weakened and employees experience a sense of relief. The second study explores whether leisure activities performed before carrying out work-related tasks in the evening attenuate work-related threats to well-being at bedtime. A total of 85 teachers participated in the 10-day diary study. Multilevel modelling showed that supplemental evening work was negatively related to recovery and psychological detachment. No effect has been found for family demands. Mixed findings of leisure activities on well-being emerged. When followed by supplemental evening work, social activities hindered recovery while physical activities stimulated detachment at bedtime. Finally, the third study examines how work stressors affect the provision of social support among intimate partners. On 147 dual-earner couples it shows cross-sectionally that a partner gives more emotional and instrumental support to the stressed person whereas the stressed person provides more negative support to the partner. Here, no gender differences in support behavior emerged.

Overall, this dissertation reveals that work stress spills over into private life where it impacts affective and cognitive well-being at bedtime, and also affects intimate partners. Regarding coping with work stress, the studies point out that the strain due to supplemental evening work is only partially mitigated by leisure activities, that experienced goal progress while working in the evening plays a key role for well-being, and that dual-earner couples are

equally supportive of each other despite their own work stress. Strengths and weaknesses of the conducted studies as well as their implications for research and practice are mentioned, followed by a concluding personal outlook based on the findings of this dissertation.

Keywords: unfinished tasks, supplemental evening work, leisure activities, provision of social support, well-being

Résumé

Le stress au travail affecte la santé des employés et également leur vie privée. Dans cette thèse de doctorat, je me concentre sur des facteurs de stress spécifiques et des stratégies de gestion pour examiner leurs effets sur le bien-être en soirée. Dans la première étude, l'impact des tâches inachevées sur le bien-être, l'effet du travail supplémentaire en soirée et le progrès ressenti sont analysés. A l'aide d'une étude sous forme de journal de bord pendant 10 jours de travail, nous avons montré grâce à un échantillon de 240 employés que les tâches inachevées mènent à plus de tension. Effectuer du travail supplémentaire en soirée augmente la fatigue et la tension. Si du progrès dans les tâches est ressenti pendant le travail supplémentaire en soirée, les effets néfastes sont affaiblis et les employés se sentent plus soulagés. Dans la deuxième étude, nous avons investigué si les activités de loisirs effectuées avant un effort supplémentaire de travail en soirée peuvent atténuer les effets néfastes sur le bien-être à la fin de la journée. Au total, 85 enseignants ont participé à l'étude sous forme d'un journal de bord pendant 10 jours. Les analyses multi-niveaux démontraient que le travail supplémentaire en soirée était négativement lié à la récupération et au détachement psychologique. Aucun effet n'a été trouvé concernant les exigences familiales. Des résultats mitigés sont apparus concernant l'effet des activités de loisirs sur le bien-être. Lorsque celles-ci étaient suivies de tâches professionnelles supplémentaire effectuées en soirée, les activités sociales nuisaient à la récupération, tandis que les activités physiques stimulaient le détachement psychologique en fin de journée. Pour terminer, la troisième étude a examiné comment les facteurs de stress liés au travail affectent le don de support social au sein d'un couple. Sur les 147 couples à double revenu ayant participé à l'étude transversale, les résultats ont montré qu'un-e partenaire donne du soutien tant émotionnel qu'instrumental à l'employé-e stressé-e, tandis que ce dernier, cette dernière donne du soutien négatif au, à la partenaire. Aucune différence entre les sexes dans le comportement de soutien n'est apparue.

Dans l'ensemble, cette thèse de doctorat révèle que le stress professionnel empiète sur la vie privée, où il impacte le bien-être affectif et cognitif en fin de journée, mais où il affecte aussi le, la partenaire. Concernant la gestion du stress, les études présentées dans cette thèse de doctorat ont montré que les implications du travail supplémentaire effectué en soirée sur le bien-être ne sont que partiellement atténuées par les activités de loisirs, que le progrès ressenti lors d'un travail supplémentaire effectué en soirée joue un rôle clé pour le bien-être, et que les couples à double revenu se soutiennent mutuellement de manière similaire malgré leur propre stress professionnel. Les atouts et les faiblesses des études menées ainsi que leurs implications pour la recherche et la pratique sont mentionnées, suivies d'une conclusion personnelle basée sur les résultats trouvés.

Mots clés : tâches inachevées, travail supplémentaire en soirée, activités de loisirs, don de soutien social, bien-être.

Zusammenfassung

Arbeitsstressoren beeinflussen die Gesundheit von Berufstätigen und prägen auch ihr Privatleben. In dieser Dissertation gehe ich auf spezifische Stressoren und Bewältigungsstrategien ein, um deren Auswirkungen auf das Befinden am Abend zu untersuchen. In der ersten Studie wird der Einfluss unfertiger Aufgaben auf das Befinden erforscht. Auch wird besprochen, welche Rolle die Ausführung zusätzlicher berufsbezogener Aufgaben am Abend und der dabei wahrgenommene Fortschritt spielen. Mittels einer Tagebuchstudie während 10 Arbeitstagen konnte an 240 Berufstätigen gezeigt werden, dass unerledigte Aufgaben am Ende des Arbeitstages abends zu mehr Anspannung führen. Das zusätzliche Erledigen berufsbezogener Aufgaben am Abend hing mit vermehrter Müdigkeit und Anspannung zusammen. Wenn während des zusätzlichen abendlichen Arbeitsaufwands ein Fortschritt erzielt wurde, so konnten die beeinträchtigenden Effekte auf das Befinden abgeschwächt werden. Auch fühlten die betroffenen Berufstätigen mehr Erleichterung. In der zweiten Studie wird untersucht, ob die beeinträchtigende Wirkung zusätzlicher abendlicher Arbeit abgemildert werden kann, wenn Freizeitaktivitäten zuvor ausgeführt werden. Insgesamt nahmen 85 Lehrpersonen an einer 10-tägigen Tagebuchstudie teil. Die Mehrebenenanalysen zeigten, dass der zusätzliche abendliche Arbeitsaufwand zu weniger Erholung und zu weniger mentalem Abschalten führt. Familiäre Anforderungen beeinflussten das Befinden nicht, während wir gemischte Effekte im Falle der Freizeitaktivitäten auf das Befinden fanden. Werden nach der Ausführung von Freizeitaktivitäten berufsbezogene Aufgaben erledigt, beeinträchtigen soziale Aktivitäten das Gefühl der Erholung, während sportliche Tätigkeiten das mentale Abschalten am Abend fördern. Im Rahmen der dritten Studie wurde untersucht, wie sich Arbeitsstressoren auf das Geben sozialer Unterstützung bei berufstätigen Paaren auswirkt. Den Ergebnissen dieser Querschnittstudie an 147 berufstätigen Paaren zufolge gibt ein Partner dem gestressten Berufstätigen mehr emotionale und instrumentelle Unterstützung,

während der gestresste Berufstätige dem Partner mehr negative Unterstützung gibt. Es traten keine geschlechterspezifischen Unterschiede im Unterstützungsverhalten auf.

In dieser Dissertation wird also aufgezeigt, dass berufsbezogener Stress das Privatleben beeinflusst, da es sich auf das affektive und kognitive Befinden am Ende des Tages auswirkt sowie das eigene Verhalten als auch das Verhalten des Beziehungspartners prägt. Bezüglich der Bewältigung von Arbeitsstress zeigen die aufgeführten Studien, dass die Belastung durch die zusätzliche abendliche Arbeit nur teilweise durch Freizeitaktivitäten abgedeckt wird, dass das Ausmass an wahrgenommenem Fortschritt während der abendlichen Arbeit eine Schlüsselrolle für das Befinden spielt und dass berufstätige Paare sich trotz der eigenen Belastungen gleichermaßen gegenseitig unterstützen. Stärken und Schwächen der Studien sowie deren Implikationen für Forschung und Praxis werden aufgeführt. Dann folgt ein abschließender persönlicher Ausblick, der sich auf die Ergebnisse dieser Dissertation stützt.

Stichwörter: unfertige Aufgaben, zusätzliche Arbeit am Abend, Freizeitaktivitäten, Geben sozialer Unterstützung, Befinden

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1. Introduction

For decades, stress and its influence on well-being has occupied a prominent place not only in mass media but especially in psychological research, as is evident in the increasing number of scientific publications (Bliese et al., 2017; Burman & Goswami, 2018). Often at the center of all theoretical approaches and studies on stress are individuals and their reactions to their close environments. This is at the core, for example, in the impactful transactional theory (Lazarus & Folkman, 1984) which, more precisely, relates to the individual's own subjective perception of events and their respective evaluation. Not only the perception of events, but also the handling of personal resources to cope with stress must be taken into account, as proposed in other renowned frameworks such as Hobfoll's Conservation of Resources (COR) theory (1998) or the Work-Home Resource (W-HR) Model of ten Brummelhuis and Bakker (2012a). All these theories are drawn upon to better understand the phenomenon of stress.

In the context of this dissertation and the presented studies, the focus is on working people who face work-related stress, defined according to the World Health Organization (2020) as "the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope". In other words, work stress occurs when an imbalance emerges between work-related demands and personal resources to which the individual has to adapt. In addition to this widely used concept of work stress, and for the sake of better delimitation, a distinction is often made between "stressors (conditions and events causing subsequent reactions), perceived stress (perception and appraisal of the stressors), and strains (psychological, physiological, and behavioral outcomes)" (Bliese et al., 2017, p. 390).

For companies, stress is a reality that affects daily work, shapes the interactions between employees, and should be considered in the planning and design of work tasks. After all, the price that organizations and their employees pay is high: stress is not only associated with

individual costs, namely with reduced work performance and well-being, but also implies operational expenses such as production constraints, compromised quality or absenteeism (Grebner et al., 2010). According to Galliker et al. (2020) from *Gesundheitsförderung Schweiz*, a foundation with the goal of promoting health and preventing sickness and illness, as many as three out of ten Swiss employees complain of insufficient resources to cope with work demands, and almost one third report emotional exhaustion, while employers struggle with stress-related costs amounting to around CHF 7.6 billion per year, with an upward trend. Similar alarming results were already revealed by the Swiss *Stressstudie 2010* by Grebner et al. (2010) conducted in Switzerland on a working population and mandated by the State Secretariat for Economic Affairs (SECO). According to the authors, the proportion of very frequently stressed employees has increased by almost 10% and now represents about one third of the active population. Not only do these stressed employees suffer from symptoms and consequences such as burnout, health problems and an increased level of dissatisfaction with their working conditions, they also experience, for example, too much time pressure and report receiving unclear instructions in their daily work routine. Moreover, they admit to completing work-related tasks during their free time, which is of particular interest for the present dissertation. Consequently, when stress is the topic of interest, coping strategies should also be addressed as they clarify the extent of the strain and provide guiding principles for dealing with it. There is still great need for action and research in this area, particularly among Swiss employees as, according to the aforementioned *Stressstudie 2010* (Grebner et al., 2010), the proportion of employees who felt completely able to cope with stress was only approximately one fifth in recent years, with a downward trend. However, those with higher coping skills were more satisfied with their working conditions and reported general better well-being.

In summary, it is evident that work-related stress among (Swiss) employees and their coping behavior are serious societal concerns nowadays. These concerns are both justifiably

considered to be leading research topics, especially in *occupational health psychology*, and are also of importance for employers and their compliance with workplace health management.

Considering these lines of thought, it can be concluded without doubt that stress is a danger for well-being and the necessity to act is urgent. To make a contribution on a scientific level, which should also encourage changes in the everyday working life of employees, I will therefore address specific work-related stressors and their consequences for well-being as there is still a great need for research. What does this mean in detail? In addition to common stressors such as time pressure, the positive and negative effects of unfinished tasks on well-being will be examined as more research is needed here (Syrek & Antoni, 2014). Coping strategies, such as performing work-related tasks in the evening, which has become common work behavior nowadays during leisure time and is often done using technological tools (Demerouti et al., 2014; Venkatesh & Vitalari, 1992) are also a focus throughout this dissertation. The questions are also whether the performance of leisure activities prior to work-related efforts in the evening, and whether providing social support to close stressed people, have a positive effect on well-being and behavior. These are precisely the aspects that have received less attention in stress research thus far. Therefore theoretical considerations on these aspects will be outlined, and studies conducted will be presented in the coming lines.

2. Work-related Stress: A Spillover Perspective

Work-related stress is not only a phenomenon that is limited to the professional environment and fades away after regular working hours. Negative experiences such as trouble with customers, severe time pressure, tension due to difficult meetings, incivility on the part of a colleague could all taint everyday routine and thus the behavior of employees who are likely to go home strained. In such cases it is quite conceivable that, due to professional stress during the working day, the necessary energy is lacking to play with one's own children after work, to pursue a sports leisure activity or take an interest in the daily life and the well-being of one's intimate partner. In other words, stress during the workday affects not only the well-being and behavior of stressed employees themselves in their professional environment, but continues to accompany them in their private lives where it affects their interactions with close ones.

In psychological research, this phenomenon is illustrated in Bakker and Demerouti's (2013) Spillover-Crossover model. According to this model, the demands that individuals face in one area of life, such as the work environment, impact on other areas, such as their private lives. In other words, the "spillover (sometimes labeled work-family conflict)" (Bakker et al., 2009, p. 207) refers to a across-domain intra-individual transfer of strain (see Bakker & Demerouti, 2013). Research findings confirm effects of such over-spilling strain and conflicts to non-work-related outcomes, such as marital and family satisfaction (Cardenas et al., 2004; Voydanoff, 2005; Ford et al., 2007), depression or anxiety (e.g., Frone, 2000; Vinokur et al., 1999), strain (Bakker et al., 2009) or, for example, physical health complaints (Adams & Jex, 1999; Geurts et al., 2003). In summary, life domains are interconnected and do not exist independently of each other as what is experienced at work influences behavior in private life.

2.1. Coping with Work Stress: A Matter of Resources

How can employees' perception of stress and its negative effects on their well-being be reduced? Besides the fact that companies may reduce the work-related demands on their employees or even eliminate potential stressors, one solution is to promote and strengthen personal resources employees need to cope with stress. Identifying how to specifically facilitate recovery or how to contribute to the development of new resources helps employees adapt to challenging environments, which in turn promotes their well-being. Therefore, to foster existing resources and the build-up of new ones represents a goal of coping with work stress.

In terms of coping with work stress, this dissertation will focus on behaviors aiming to acquire, use and/or develop personal resources, for example the feeling of making progress or also instrumental support from the partner. The following theories, namely Hobfoll's Conservation of Resource theory (1998) and the Work-Home Resource Model of ten Brummelhuis and Bakker (2012a) serve as explanatory mechanisms in this dissertation of why work-related stress represents a danger for well-being and resource management.

The Conservation of Resource theory by Hobfoll (1998), also called COR theory, has been used in research for decades and is probably one of the most cited theories in explaining the impact of stress and coping (Hobfoll, 2011). According to this theory, individuals possess an intrinsic need to protect what they consider valuable and to nurture such precious resources as well-being. The conservation and acquisition of resources worthy of preservation unfold a motivating potential and successful adaptation to one's own environment, placing demands on the individual (Hobfoll, 2011). More specifically, these resources can be defined as "object resources (e.g., tools for work, car), condition resources (e.g., supportive work relationships, seniority at work), personal resources (e.g., key skills and personal traits such as self-efficacy and self-esteem), and energy resources (e.g., knowledge, credit)" (Hobfoll, 2011, p. 117). In addition, the theory puts emphasis on the meaning of resources on an individual level as well

as on a broader level, related to groups of interest (Hobfoll et al., 2018). For example, consider a company that promotes childcare by establishing an in-house daycare center. For individual working parents it is a resource that can help in the organization of their busy daily lives. On a more general level, this in-house daycare center represents an interesting marketing-relevant added value in human resources policy for corporate strategy as it is generally considered to be a resource on the part of the organization. In other words, resources have an individual significance which can additionally extend to specific interest groups.

The Conservation of Resource theory comprises several sub-principles. According to one principle, the building of new resources requires the use of existing ones, and it is easier for those with more resources to build new ones. The necessity of preserving resources becomes all the more clear as the theory suggests that a so-called resource loss cycle may arise, according to which it becomes more difficult to build up resources once they are lost. The loss of resources often implies further decline, resulting in a vicious circle. For example, after a busy workday, an employee might have trouble recovering during leisure time because of feeling too exhausted. This individual might sleep poorly at night, wake up the next morning feeling drained, only to perform work-related tasks listlessly the following day. In other words, the loss of resources is often associated with a further depletion of them.

Overall, this theory focuses on the management of one's personal or organizational resources. The perception of stress after personal effort results from an appraised threat to one's resources (Hobfoll et al., 2018). Consequently, the added value of this theory is that it emphasizes the importance of resources as an aid in reacting to stressors and adapting to a challenging environment.

As this dissertation concerns the impact of stress that arises from the work environment and influences behaviors and well-being in the private sphere, the Work-Home Resource Model by ten Brummelhuis and Bakker (2012a) is also presented here because it expands on

the COR theory and focuses on the role of personal resources in this interaction of both domains. More specifically, the Work-Home Resources Model (W-HR Model) "describes work-home conflict as a process whereby demands in one domain deplete personal resources and impede accomplishments in the other domain." (ten Brummelhuis & Bakker, 2012a, p. 545), thus additional effort is needed to cope with these contextual demands (e.g., Demerouti et al., 2001). Time pressure, overload or emotional work, for example, represent such contextual demands.

If there are contextual demands, which can be stressors from the work environment, this model emphasizes that there are also contextual resources such as emotional or instrumental support from close people or participation in leisure activities, whereas personal resources include skills, experience, health, financial wealth, or self-efficacy. These contextual demands and resources, as well as personal resources, have an impact on outcomes which, in the private sphere can be, for example, relationship satisfaction and behaviors toward family members as well as one's own ability to switch off in the evening, mood, or well-being.

Let us take the example of employees overwhelmed with work tasks due to high time pressure (contextual demands). If colleagues take over tasks during the workday (contextual resource), this relieves the stressed employees who are likely to concentrate more on work-related tasks and feel better. After the workday, they go home in a more positive mood (personal resource) as they were able to concentrate on their tasks, and at home they are likely to behave more cordially toward their families (outcome). In other words, personal resources, which are related to contextual demands, shape how we behave and feel in our private life.

Similar to the COR theory, the authors of the W-HR Model establish guiding principles. For example, principles state that a work-home conflict is caused by the influence of contextual demands, and they hold a time-related component which manifests itself in the influence of

short-term (called *volatile*) or long-term (called *structural*) contextual demands and resources on volatile, respectively structural personal resources.

Overall, the W-HR Model is an explanatory mechanism that complements Hobfoll's COR theory (1998) which highlights the general character of resources for coping and well-being by additionally focusing on personal resources as a binding element between work and private life, and why the demands from one area influence outcomes in the other.

2.2. Recovery, Psychological Detachment and Supplemental Evening Work

Resources, as explained in previous sections, provide a useful means of coping with stressful situations and thus the building of new ones should be encouraged. However, the question of when to build up these resources arises. Of equal importance as the resources themselves are the recovery phases, during which no further demands should be placed on the organism, thus representing an opportunity to regenerate and build up resources. In other words, recovery and resources are two strongly interrelated concepts and both are highly relevant for well-being.

Recovery, as a prominent topic in the Organizational Health Psychology (Sonnentag et al., 2017), seems not only necessary for the relief of work-related strain in particular (Sonntag & Fritz, 2014), but also helps the organism to shut down its physiological and psychological processes to a pre-stressor level (Meijman & Mulder, 1998) and contributes to long-term well-being (Sonntag, 2003). Recovery, defined as “a process opposite to the strain process (Craig & Cooper, 1992) during which short-term strain reactions are alleviated so that they will not result in more longer-term impairment of well-being.” (Sonntag, 2018, p. 2) can occur when activities are performed that provide mental distraction (Sonntag & Bayer, 2005) and do not deplete the same resources as during the workday (Sonntag, 2001).

Not only the investigation of leisure activities per se (which will be discussed in more detail later in this dissertation) such as exercising, meeting friends, or low-effort tasks such as watching television, but also an investigation of the "recovery experiences" felt during these activities such as psychological detachment, relaxation, mastery and control (Sonnentag & Fritz, 2007) as well as sleep behavior (Fritz & Crain, 2016) may be helpful to better understand the concept of recovery itself, and its underlying mechanisms for well-being.

Psychological detachment as one of the facets of the aforementioned recovery experience, which is examined in more detail in the second study in this dissertation, characterizes a necessary process for recovery (Sonnentag & Bayer, 2005) and stipulates neither mentally engaging in work-related concerns nor completing such tasks in one's leisure time, thus achieving a physical and psychological distance from work (Sonnentag & Fritz, 2007). In other words, this distancing is defined by "experience whether being mentally involved in any other content area (e.g., a hobby, one's children's school problems, or family activities)" (Sonnentag & Fritz, 2014, p. 74).

So as to embed the concept of psychological detachment in a theoretical framework, the Stressor-Detachment Model of Sonnentag and Fritz (2014) is briefly touched upon as it illustrates the role of psychological detachment in the relationship between work stressors and strain. According to this model, work stressors have a direct effect on well-being and these perceptible reactions, whether at the affective, psychological, or physiological level, represent a discernible manifestation of a (negative) response to challenging demands and may persist even when the demands are no longer placed on the organism. Attention paid to this experienced activation triggers mental patterns which, for example, cause one to mentally relive one's workday and to deal with work-related issues. That is to say, the experienced mental activation prevents mental switch-off during leisure time, which negatively relates to various facets of well-being.

For instance, research findings show that psychological detachment relates to positive affect at the end of the day (Demerouti et al., 2012; Feuerhahn et al., 2014; Sonnentag & Bayer, 2005), leads to more life satisfaction (Fritz et al., 2010; Hahn & Dormann, 2013), less psychological strain and fatigue (Moreno-Jiménez et al., 2009; Sonnentag & Bayer, 2005) and is negatively related to emotional exhaustion and burnout (Etzion et al., 1998; Hahn et al., 2011; Taris et al., 2008) as well as conflicts between the work and family domain (Demsky et al., 2014), somatic complaints (Moreno-Jiménez et al., 2012) and need of recovery (Sitaloppi et al., 2009; Sonnentag & Fritz, 2007; Sonnentag et al., 2010). Overall, a picture emerges in which physical and mental detachment from work is very necessary for employees' well-being. Therefore, organizations and their supervisors should act as role models (Sonnentag & Fritz, 2014) and establish guidelines for their employees so that they can leave their workday behind and recover better at the end of the day.

If achieving such a mental and physical distance contributes to well-being, it can be assumed that completing work-related tasks in the evening after a workday impedes cognitive switch-off at bedtime. This dealing with work-related tasks is accompanied by a continuous mental preoccupation with work-related contents, at the expense of recovery time (when no additional demands should be placed on the organism), and draws especially on the same resources as during the workday (Sonnentag, 2001). Following this line of reasoning, performing work-related tasks in the evening represents risky behavior for well-being.

To better delimit this counterpart to psychological detachment, namely working in the evening, and to highlight the importance of recovery and resource-building for affective and cognitive well-being, the Effort-Recovery Model (E-R Model) of Meijman and Mulder (1998) is introduced here. It addresses the extent of personal effort to cope with demands and emphasizes the importance of recovery for the organism. More specifically, the model postulates that the work effort holds short-term performance outcomes but also load reactions

like negative affect or increased fatigue. Furthermore, it emphasizes the importance of sufficient recovery opportunities to both build up resources and reduce strain to a pre-stressor level. In addition, recovery should be in proportion to the extent of work demands faced, meaning the longer the effort persists, the more recovery is needed afterwards. If an individual cannot recover sufficiently after a prolonged exposure to demands, long-term damage to health is likely to occur (e.g., Åkerstedt, 2006; Devereux et al., 2011; Nixon et al., 2011).

With regard to the aforementioned resumption of job-related tasks in the evening seen as a personal effort during leisure time, research findings identify it as well-being- threatening work behavior, given that it reduces positive affect, happiness and vigor, hinders recovery, impedes general well-being and also prevents cognitive switch-off and increases fatigue at bedtime (Bakker et al., 2013; Garrick et al., 2018; Sonnentag, 2001; Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006; Volman et al., 2013). In short, despite the rise in one's performance, the supplemental evening work effort emerges as a health hazard as it hinders recovery and resources building, and therefore should be avoided.

To sum up, the personal resources (e.g., energy or support from close people) are a helpful means to deal with stressful situations, addressed on a theoretical level with the COR theory (Hobfoll, 1998) and the W-HR Model (ten Brummelhuis & Bakker, 2012a). After that, it was explained that recovery times are necessary to build up these resources which, for example, enable mental switch-off from work in the evening. Finally, based on the Effort-Recovery Model of Meijman and Mulder (1998), it was pointed out that the completion of work-related tasks as a personal effort during leisure time is at the expense of recovery because the same resources are depleted as during the workday (Sonnentag, 2001). This does not allow for a build-up of resources and is therefore regarded as risk behavior for well-being.

In the context of this dissertation, specific work stressors will now be addressed and their effects on the well-being of employees will be investigated and presented. In the first part,

work-related stressors, namely unfinished tasks at the end of the working day, are discussed and reasons given why they should be avoided for the sake of our well-being. Because more and more employees perform work-related tasks again during their free time especially by using technological devices (Demerouti et al., 2014; Venkatesh & Vitalari, 1992), this specific behavior is taken up in the context of unfinished tasks in an effort to shed light on its consequences for well-being. In a second study, a closer look is taken at this personal evening work effort and explores whether leisure activities can be engaged in prior to evening work in order to mitigate the detrimental effects of supplemental evening work on well-being.

2.3. Study 1: Unfinished Tasks and Supplemental Evening Work

Unfinished tasks at the end of the workday are a widespread and typical stressor in today's working world (Peifer et al., 2019) and are defined as “tasks that the employee aimed to finish (or make certain progress), but which were left undone (or left in an unsatisfactory state) when the employee stopped working” (Syrek et al., 2017, p. 3). For example, at the end of the workday, customer inquiries might remain unanswered, reports remain uncompleted, or emails are postponed until the next day.

The Ovsiankina and Zeigarnik effects serve as an explanatory mechanism of why unfinished tasks affect well-being. While the Ovsiankina effect (1928) states that unfinished tasks imply an urge to complete them, the Zeigarnik effect specifies that continuous task-related thoughts come up automatically and persist for as long as the task is left undone, given that these cognitions emphasize the incompleteness of tasks and the nonattainment of set goals. Based on the theorizing and experimental results of Zeigarnik (1927, 1938), unfinished tasks activate task-related cognitive cues resulting in increased consciousness for what has been left undone. As these unfinished tasks imply the need for completion and maintain a heightened

affective arousal, feelings of tension and fatigue arise and, as stated by Sonnentag and Bayer (2005), result in a reduced feeling of well-being.

For example, research findings show that employees experiencing unfinished tasks report feelings of reduced well-being both during and after the weekend, complain of sleep problems, have difficulty mentally switching off, experience increased negative affect or ruminate more during the weekend (Peifer et al., 2019; Syrek & Antoni, 2014; Syrek et al., 2017; Weigelt & Syrek, 2017; Weigelt et al., 2019). Overall, the picture that emerges is that unfinished tasks pose a threat to the well-being of employees.

Resuming work-related tasks in the evening after a workday has nowadays tended to become widespread work behavior. Applied to the context of unfinished tasks, it is a means of accounting for and counteracting one's own performance losses during the working day (Weigelt & Syrek, 2017). Given that uncompleted tasks hold a compulsive need for completion, additional work effort in the evening represents, on the one hand, a coping strategy to control the strain caused by unfinished tasks aimed at reducing the affective tension and the cognitive rumination. On the other hand, the evening work effort hinders the onset of psychophysiological recovery processes (Meijman & Mulder, 1998) and comes at the expense of recovery time intended for unwinding from job strain (Sonnentag, 2003).

As already presented in the course of this dissertation, Meijman and Mulder's Effort-Recovery Model (1998) specifies that a work effort holds not only short-term performance outcomes but also load reactions, like negative affect or increased fatigue, and argues for the importance of sufficient recovery opportunities to build up resources and slow down the strain until a pre-stressor level is reached. Applied to evening work efforts, resuming work-related tasks in the evening may pave the way for a decrease in well-being, leading to more fatigue because the same resources are used as during the workday (Sonnentag, 2001).

In the first study presented in this dissertation, a specific case of spillover in which stressors from the work environment affect how employees feel in the evening was investigated. In other words, the question was addressed of how unfinished tasks at the end of the workday are linked to fatigue, tension, and relief at bedtime. Furthermore, to what extent the resumption of work-related tasks in the evening and perceived goal progress has a moderating effect on affective well-being was explored.

The first study that is the subject of this dissertation now follows.

Study 1

On unfinished tasks, supplemental evening work, goal progress and well-being

**Working in the evening can work! How supplemental evening work and goal progress
impact the relationship between unfinished tasks and tension, fatigue and relief**

Cyril Chariatte and Laurenz L. Meier

University of Neuchâtel, Switzerland

Author Note

Cyril Chariatte, Institute of Work and Organizational Psychology, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland. Correspondence regarding this article should be addressed to Cyril Chariatte, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland.

Abstract

Previous studies point to the detrimental effect of unfinished tasks as a work-related stressor on the recovery process, showing that they are related to compromised well-being. To cope with unfinished tasks and related feelings of tension, employees might engage in supplemental work during job-off hours. While working on the unfinished tasks during the evening may further hamper the recovery process, it may also help to reduce negative affect (i.e., tension and fatigue) and elicit positive affect (i.e., relief) due to progress on the set goals. Drawing on the Ovsiankina effect and the Zeigarnik effect as well as Effort-Recovery Theory, we conducted a diary study among 240 employees over two weeks on the surmise that unfinished tasks affect well-being (high tension and fatigue, low relief). Furthermore, we postulated a first moderator effect of supplemental evening work and a consecutive one of experienced goal progress. More specifically, we expected the effect of unfinished tasks on tension and fatigue to be stronger and the effect on relief to be weaker on days when employees engage in supplemental work in the evening, whereas goal progress reduces daily tension and fatigue and leads to more relief. According to multilevel modeling, unfinished tasks negatively predicted daily feelings of tension, but not fatigue. Supplemental evening work led to more tension and fatigue, but no moderation effect was found. Reported goal progress while working reduced feelings of tension and its moderating effect significantly affected relief. In line with previous research, the current study suggests that unfinished tasks and supplemental work in the evening negatively affect daily well-being. Experienced goal progress mitigates these effects and provides increased relief. In sum, working in the evening can help to relieve the strain of unfinished tasks, but only in combination with goal progress.

Keywords: unfinished tasks, supplemental evening work, goal progress, diary study, relief

Working in the evening can work! How supplemental evening work and goal progress impact the relationship between unfinished tasks and tension, fatigue and relief

Unfinished tasks at the end of the working day are a widespread and typical stressor in today's working world (Peifer et al., 2019). Interruptions at work, such as phone calls, technical problems or spontaneous requests from colleagues, can be the reason for such unfinished tasks, thus employees do not complete the planned tasks, leave the workplace knowing that these assignments are still outstanding and are aware of their own reduced work performance during the day. Findings suggest that this incompleteness of tasks influences the employee's well-being by leading to the emergence of work-related thoughts and sleep disturbances (e.g., Syrek & Antoni, 2014; Syrek et al., 2017) and by increasing negative affect and inner tension (Gabriel et al., 2011). To counteract such a decline in daily performance, more and more employees might opt to complete work-related tasks during job-off hours in the evening with the aim of enhancing their own productivity (Shockley & Allen, 2012).

In this paper, we focus on this supplemental evening work because resuming work-related tasks during job-off hours in the evening might be seen as ambiguous work behavior with regard to well-being. On the one hand, additional evening work can pose a threat to well-being as it may lead to a diminished feeling of recovery (Sonnentag & Zijlstra, 2006) and bring about additional strain such as fatigue at the expense of recovery time (Garrick et al., 2018; Meijman & Mulder, 1998) as it draws on resources already used during the workday (Sonntag, 2001). On the other hand, it represents a performance-enhancing strategy to lessen the strain caused by the unfinished tasks and therefore perceived positive affect and goal progress as tasks approach completion. Given these ambivalent facets of supplemental evening work, it seems legitimate to further investigate how unfinished tasks and resuming work during the evening impact our affective well-being.

Concerning unfinished tasks as work-related stressors, we rely on the Ovsiankina effect and the Zeigarnik effect to provide useful frameworks to understand the associated strain. While the Ovsiankina effect (1928b) argues that unfinished tasks cause the urge to complete them and so lead to inner tension, the Zeigarnik effect (1927) emphasizes that unfinished tasks tend to niggle and consequently prevent cognitive switch-off. Additionally, we rely on the Effort-Recovery Model (Meijman & Mulder, 1998) to examine how resuming work-related tasks during job-off hours in the evening affect wellbeing, while Carver and Scheier's Control Theory (1982) offers a suitable approach to evaluating whether the experienced goal progress while working plays a role. Building on these theoretical frameworks, we assume that unfinished tasks at the end of a working day will have a negative impact on well-being as they increase feelings of tension and fatigue. We also suppose that supplemental work resumed in the evening intensifies these effects, whereas goal progress weakens the prior negative effect of supplemental evening work on tension and fatigue thus paving the way for a specific facet of positive affect, namely relief.

To further investigate supplemental evening work as a coping strategy to overcome the detrimental effects of unfinished tasks from the workday, we broaden the current state of research in three ways. First, we provide support for the effects of unfinished tasks on well-being among stressed employees, in particular as we investigate this topic by using the methodology of within-person diary studies which is suitable for gathering knowledge on processes affecting wellbeing (Ilies et al., 2015). The few studies to date are characterized by weekly observations as they examine the impact of unfinished tasks over the week on well-being during and after the weekend (Syrek & Antoni, 2014; Syrek et al., 2017; Weigelt & Syrek, 2017). Although Peifer et al. (2019) provide first results on the influence of unfinished tasks on well-being on a single daily basis, we are the first to investigate its influence over several consecutive working days, without weekends. Furthermore, our study is distinguished

by a sample size that far exceeds the previous studies on this topic. Therefore, our study allows further understanding of short-term effects on a daily level and contributes to the current state of research.

Secondly, because unfinished tasks from the workday may result in supplemental evening work, we have decided to investigate a positive affective state, namely relief, in addition to the accompanying goal progress due to the resumption of work-related tasks. Previous research on unfinished tasks has often focused on their negative consequences, for example mostly on cognitive impairment such as rumination (e.g., Cropley & Zijlstra, 2011) or reduced recovery processes (e.g., Sonnentag & Bayer, 2005; Weigelt & Syrek, 2017) whereas very little attention has been paid to the sense of positive affect such as the feeling of relief attained by working in the evening and progressing on these uncompleted tasks. We take this positive affective state into account and thus answer the call of Syrek and Antoni (2014) to investigate both positive and negative outcomes related to unfinished tasks. Moreover, this sense of relief is relevant as it is a means to assess the impact of evening work. Finally, to our knowledge, we are the first to investigate this feeling of relief in this context of unfinished tasks, evening work and goal progress. Investigating the sense of relief is of interest as the initial strain turns into a rewarding feeling that represents one's progress during evening work and thus has the potential to mitigate the negative effects on one's well-being. With the goal of progressing in the tasks or even finishing them, experiencing relief is at the core of taking on additional work in the evening.

Thirdly, we investigate more widespread working behavior, namely the fulfilling of work-related tasks at home in the evening. The impact of this specific example of motivated flexplace working - in our study called supplemental evening work - has been less studied in this context so far. Specifically, as solution-oriented behavior to overcome strain from unfinished tasks, we would like to examine the phenomenon of supplemental evening work at

home and its associated goal progress more closely as both might affect how unfinished tasks are handled and how they affect well-being in the private sphere. By drawing on the Effort-Recovery Theory (Meijman & Mulder, 1998), we provide practical insights for organizations as well for employees themselves. In understanding how supplemental evening work affects well-being, organizations might mold their family-friendly policies regarding flexible work arrangements. For employees, a better knowledge of the consequences of flextime and flexplace might prevent the arising of physical and psychological health problems.

Unfinished Tasks as a Work-Related Stressor

According to Syrek et al. (2017, p. 3) work-related unfinished tasks “refer to tasks that the employee aimed to finish (or make certain progress), but which were left undone (or left in an unsatisfactory state) when the employee stopped working”. Examples of such tasks where the time required to complete them was insufficient could be answering customer queries, completing meeting reports or compiling documents.

The reason why unfinished work-related tasks have a negative effect on well-being can be explained by the Ovsiankina effect and the Zeigarnik effect. According to the Ovsiankina effect (1928b), unfinished tasks imply an urge to complete them, while the Zeigarnik effect (1927) reveals that niggling task-related thoughts arise automatically and persist when a task is left uncompleted, compared to completed tasks, as these cognitions focus on information highlighting the uncompletedness of tasks and therefore nonattainment of goals. Based on the theory and experimental results of Zeigarnik (1927, 1938), unfinished tasks activate task-related cognitive cues resulting in increased consciousness of what has been left undone. As these unfinished tasks involve the need for completion and in this state also maintain a heightened affective arousal, feelings of tension and fatigue arise and, as stated by Sonnentag and Bayer (2005), result in compromised well-being. In other words, unfinished tasks as a

work-related stressor are detrimental to an employee's well-being as it induces a feeling of tension and fatigue, as well as the niggling cognitive activity that reminds one of the unachieved goals.

As initial findings focused more on cognitive consequences of unfinished tasks (Mahler, 1933; Masicampo & Baumeister, 2011; Ovsiankina, 1928a; Zeigarnik, 1927, 1938), recent field studies show that unfinished tasks as a work-related stressor reported at the end of the week negatively affect well-being during and after the weekend, such as sleep quality (Syrek & Antoni, 2014; Syrek et al., 2017) or detachment (Weigelt & Syrek, 2017). In a similar vein, Weigelt et al. (2019) showed that unfinished tasks from the work week increase rumination during the weekend via a depleted sense of competence need satisfaction. Furthermore, the study of Peifer et al. (2019) reveal effects of unfinished tasks on negative affect that last until the next day, whereas flow experience mediates this link.

Drawing on these results and the theoretical derivation, it can be summarized that unfinished tasks as work-related stressors have a negative impact on well-being. The constant reminder to oneself that they are unfinished leads to negative affect such as tension. This continuous mental preoccupation does not allow for recovery, which is why an increased feeling of fatigue probably accompanies it. Therefore, we posit that employees who report unfinished tasks at the end of the working day experience an increased feeling of tension and fatigue in the evening at home.

Hypothesis 1: On a daily basis, unfinished tasks at the end of a workday are positively related to feelings of tension and fatigue in the evening.

Supplemental Evening Work: Effort at the Costs of Recovery

Resuming work-related tasks in the evening after a workday seems, nowadays, to have become widespread behavior. Applied to the context of unfinished tasks, taking on work-

related assignments in the evening is a means of compensating or making amends for performance losses during the working day (Weigelt & Syrek, 2017), as uncompleted tasks may involve a compulsive need for completion. In this sense, working in the evening represents, on the one hand, an active coping strategy intended to control the strain caused by unfinished tasks by reducing affective tension and cognitive rumination. On the other hand, the after-work hours and later evening is the time needed for recovering personal resources used up during the working day. As lacking time to recover accompanies depleted resources and increased feeling of fatigue, resuming work-related tasks during the evening is at the expense of the leisure time intended for recovering. This is why it was all the more important for us to delve into the consequences of work-related effort in the evening on well-being.

In the following sections, we apply the Effort-Recovery Model (Meijman & Mulder, 1998) to employees' supplemental evening work behavior to explain why this additional effort put into fulfilling tasks is relevant for the recovery process as it might deplete personal resources. The E-R Model states that the work-related efforts have not only short-term performance outcomes but also load reactions, such as increased negative affect or fatigue, and that there should be sufficient after-work recovery opportunities to build up the necessary resources for the execution of work-related demands, as for example during the upcoming workday. In this sense, working in the evening constitutes higher personal efforts (Hockey, 1997) at the expense of recovery time after a resources-consuming workday (Sonnentag, 2003). Therefore, the greater the professional demands and efforts, the more recovery and resource building is needed afterwards. Ideally, an individual should recover enough during off-job time to slow down the strain until the personal pre-stressor level is reached. However, in the case of longer exposure to high work-related demands and therefore insufficient recovery, health problems such as physical complaints (Åkerstedt, 2006; Devereux et al., 2011) are the consequence of this impaired physical and psychobiological stress system (Nixon et al., 2011)

which, in the long term, results from daily accumulations of insufficient recovery (Geurts & Sonnentag, 2006). In this line of reasoning, feeling more tired at the end of the day should be even more pronounced when the same resources are drawn on during off-job activities as during the working day (Sonnentag, 2001) and given only reduced time for recovering in the evening.

From the perspective where supplemental evening work as a proxy for work-related activities performed during off-job hours and the evening is seen as a resource-depleting effort, studies indicate that this evening behavior negatively impacts on a daily basis several outcomes such as, for example, affective well-being and recovery (Sonnentag, 2001; Sonnentag & Zijlstra, 2006). Moreover, people were less able to psychologically detach in the evening (Volman et al., 2013) and also report reduced positive affect (Ohly & Latour, 2014) and more fatigue (Garrick et al., 2018). Similarly, employees dedicating themselves to work-related activities during job-off hours report less evening happiness and vigor (Bakker et al., 2013; Sonnentag & Natter, 2004). In summary, although it is possible to carry on work-related tasks in the evening, studies indicate that its negative effects outweigh its impact on well-being.

Based on the E-R Model and previous findings, we therefore posit that supplemental evening work effort intensifies the feelings of tension and fatigue already emanating from unfinished tasks. In other words, the evening work takes on a moderating role in the relationship between unfinished tasks and negative affect.

Hypothesis 2: Resuming work in the evening moderates the link between unfinished tasks and tension and fatigue. The relationship will be stronger for employees resuming work in the evening compared to employees who did not.

Experiencing Goal Progress

Supplemental evening work may be seen as behavior where the focus is on approaching goals for which an additional effort is made. Because achieving goals also has a motivating function after interruptions (Gollwitzer, 1996) as might be the case, for example, at the end of the working day, resuming work-related tasks in the evening makes it possible to experience goal progress and achievement of the set goals, while counteracting the negative influence of unfinished tasks (Weigelt & Syrek, 2017). In this sense, goal progress, seen as a driving force, is defined as "Progress comprises all successful steps that help to attain a goal and therefore provides individuals with many small satisfying experiences that cumulate to influence general subjective wellbeing" (Klug & Maier, 2014, p. 41). Thus, working in the evening is a step towards the achievement of the goal and is therefore likely to induce a positive feeling.

Why goal progress is associated with increased positive and decreased negative affect and why there is motivation for supplemental work can be explained by Carver and Scheier's Control Theory (1982). They postulate that the aim of experiencing goal progress is to reduce the discrepancy between the current and the intended state, which is why people are likely to adapt their own behavior and thus effective goal progress would be positively related to well-being. Therefore, resuming work-related tasks in the evening after a workday characterized by uncompleted labor tasks allows strained employees to experience goal progress which, in turn, promotes positive affect. In relation to the Zeigarnik effect, that points to the emergence of ruminative thoughts due to unfinished tasks, it can be said that as long as the set goals and therefore the unfinished tasks are not completed, or when there is no approach to the targeted state of completion, task-related thoughts and emotional post-stressor arousal persist. Therefore, Martin and Tesser (1996) conclude that it is almost only the completion of the open task that undermines rumination and so encourages people to engage in additional effort. In sum, these theoretical considerations aim to ensure that goal progress can trigger positive

emotions as a motivating factor for one's own supplemental work behavior in the evening in order to overcome the burden of unfinished tasks.

Various research findings confirm the relationship of goal progress with increased positive and reduced negative affect. Thus it was shown that the approaching of goals and the completion of (sub)goals is associated with positive affect (e.g., Harris et al., 2003; Kehr, 2003; Oatley & Johnson-Laird, 1987) and is less related to negative affect (e.g., Wiese & Freund, 2005), as also indicated in the meta-analysis of Klug and Maier (2014) on their influence on well-being. In contrast, decreased goal progress tends to have a negative impact on well-being (Koopman et al., 2016) and the associated dissatisfaction increases the extent of negative affect (Gabriel et al., 2011). So far, we have only found Weigelt and Syrek's (2017) study which explicitly looks at goal progress in relation to unfinished tasks and supplemental evening work and specifically focuses on such work behavior during the weekend. According to their results, unfinished tasks at the end of the working week led to less psychological detachment and less recovery, while the additional work and thus goal progress during the weekend weakened the negative effects of uncompleted tasks on recovery.

To better understand the extent of goal progress due to the supplemental work, we have taken the feeling of relief as a proxy for this documented association of goal progress with positive affect, as we believe it is particularly relevant in the context of unfinished tasks that are further processed or even completed by additional evening work. According to Lazarus (1991), relief is easily distinguishable from other emotional states, such as anger or anxiety, by its nature and represents one of the simplest cognitive emotions as it consists mainly of the two components, namely goal relevance and cessation of a goal incongruence. In other words, relief is "a distressing goal-incongruent condition that has changed for the better or gone away" (p. 122). Given that it is the emotional expression of a change in the immediate environment, relief thus arises necessarily from a former negative state which is related to goal-incongruency and

has the potential to neutralize or mitigate the prior experienced goal-incongruence and the inherent negative emotions (Lazarus, 1991). Applied to the context of unfinished tasks which trigger negative emotions due to their goal-incongruency, the resumption of work-related tasks in the evening makes it possible to approach completion by experiencing goal progress and therefore feelings of relief.

Certain findings indicate that taking on work-related tasks in the evening can lead to positive affect like happiness (Sonnentag & Zijlstra, 2006), that achieving goals is associated with pleasure (Harris et al., 2003) or leads to a better mood (Amabile & Kramer, 2011). Since we have not found any study that specifically examines this feeling of relief with supplemental evening work behavior and even with unfinished tasks, we would like to contribute to the state of research with an intensive investigation of it on a daily basis. We thereby generate new insights into this positive affect, as Lazarus (1991) has already encouraged further research on this rather ignored sense of relief and as Syrek and Antoni (2014) have called for studies including positive affect in combination with unfinished tasks.

Taking into account this line of reasoning of the above-mentioned theories and the findings so far, goal progress achieved through supplemental work in the evening represents the means to counteract the negative burden of the unfinished tasks of the day and to feel positive affect, in this case to seek relief. For this reason, we suggest that employees who are stressed by tasks remaining uncompleted from the workday and therefore work in the evening would feel less fatigue and less tension on the one hand, and more relief on the other, whereby this link is stronger on days when goal progress is reported in the evening.

Hypothesis 3: The effect of unfinished tasks on tension and fatigue (a) and on relief (b) is weaker when goal progress (reported by employees resuming work-related tasks in the evening) is high than it is low.

Method

Participants and Procedure

To participate in our diary-study, master-level students recruited 296 Swiss employees from various professional fields. These participants were sent a link via email to complete the baseline questionnaire which was intended to cover working conditions in general. After completion of this baseline questionnaire, during the next 10 working days the daily surveys were sent out. Participants had to complete the "end-of-work" questionnaire, which was available from 4pm to 8.30 pm, once they had left their workplace. In this questionnaire we measured the strain of unfinished tasks from the working day. Later in the evening, the participants indicated in the "bedtime" questionnaire (sent at 8pm, available until 3am of the following day) whether and for how long they had taken on further professional tasks after their regular daily work, and we also measured the feelings of fatigue and tension as well as relief. After the 10 working days, a final short questionnaire was completed to identify any special events that had occurred during the study period. To thank the participants for their participation, individual feedback was given and a raffle was held for some vouchers worth 100 Swiss francs.

Of the 296 participants recruited, 265 completed the baseline (10.47% drop-out rate). This drop-out rate can be explained by the fact that these employees either did not meet the participation criteria (i.e., working at least 80% of full-time employment and they had to occasionally work in the evening), or they did not complete the baseline or not enough daily measurements (i.e., completing fewer than three end-of-work surveys). As 25 participants provided insufficient daily data, the final sample consisted of 240 participants who filled out a total of 1,794 "end-of-work" and 1,573 evening measurements.

Among the final sample, the mean age of the participants was 40.32 ($SD = 11.98$, range: 22-64 years) and we had a female participation rate of 54%. Regarding educational background, nearly two third hold a university degree (63.74%). In total, 76.25% were in a relationship, whereby the partner's mean workload was 80,45% ($SD = 29.77$). About half of the participants have children (51.67%). On average, the participants report a weekly working time of 42.89 hours ($SD = 8.53$), whereby almost three quarters (73.33%) mention contractually regulated hours which average 39,12 hours per week ($SD = 5.76$). Mean tenure in their current job was 8.84 years ($SD = 9.75$) and around one third (35.83%) hold also a supervisor status. Concerning the completion of job-related tasks in the evening and thus after the official end of work, the participants report an average of 16.89 minutes of working time in the evening ($SD = 39.99$) assessed by 347 out of 1542 measurement occasions.

Measures

The study was conducted in both French and German. As no validated translation was available for some scales, the items were translated according to Brislin's (1980) translation-back translation procedure by native French and German speakers until a consensus in meaning was found.

Unfinished Tasks. Measuring the extent of uncompleted tasks after on a working day, we used the scale developed by Syrek et al. (2017) containing 2 items, namely "I have not completed today's urgent tasks" and "I have not even started with important tasks, I wanted to fulfill today". At the end of a working day, participants had to rate how burdened they felt due to their daily unfinished tasks on a 5-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). Within-person reliability was calculated according to Shrout and Lane (2012) and was .61.

Work behavior in the evening. At bedtime, participants had to indicate whether they had worked in the evening or not. We assessed daily evening work behavior with a dichotomous single item (“Taking everything into account, have you worked today more than usual / worked overtime?”).

Goal progress. To measure progress on the undertaken work tasks, goal progress was assessed with four items from Wanberg et al. (2010) at bedtime on a daily basis only among participants who performed work-related tasks in the evening. A sample item was “I made good progress on my work goals”. Two items were reverse coded, and the response format ranged from *strongly disagree* (1) to *strongly agree* (5). Within-person reliability was calculated according to Shrout and Lane (2012) and was .72.

Tension. We assessed tension using three items from the Profile of Mood States (POMS) from McNair et al. (1981). At bedtime, participants indicated their extent of feeling “tense”, “uneasy” and “nervous” on a 5-point Likert scale ranging from *not at all* (1) to *extremely* (5). Within-person reliability was calculated according to Shrout and Lane (2012) and was .63.

Fatigue. We assessed fatigue using three items from Cranford et al. (2006). At bedtime, participants indicated whether they felt “worn out”, “exhausted” and “fatigued” on a 5-point Likert scale ranging from *not at all* (1) to *extremely* (5). Within-person reliability was calculated according to Shrout and Lane (2012) and was .79.

Relief. We assessed relief using a single item developed by Leone et al. (2005). At bedtime, participants indicated their extent of feeling “relieved” on a 5-point Likert scale ranging from *not at all* (1) to *extremely* (5).

Results

Data Analysis

The aim of the study is to investigate the short-term effect of unfinished tasks and supplemental evening work on well-being at the end of the day. Furthermore, we were interested in finding out what role goal progress plays in this process. In a first step, we investigated the influence of unfinished tasks at the end of the working day on well-being and to what extent working in the evening affects this relationship. In a next step, we took a closer look at the effects of perceived goal progress, whereby only the evenings on which work was carried out were taken into account. For this purpose, the daily measurements were group-mean centered. The data were investigated with multilevel structural equation modeling and analyzed using the lme4-package (Bates et al., 2018) in R for the preparation of the data, descriptive model statistics and graphic representation of the results and the Mplus software for inferential statistics (Muthén & Muthén, 2021). The hypotheses were tested one-tailed, modelling daily unfinished tasks, supplemental evening work, goal progress, and the interaction effects as random slopes (i.e., supplemental evening work with affect, goal progress experienced on worked evenings with affect). The null models show a strong within-person variance meaning a substantial variability in the employees' well-being and experienced work stressors over the study period of two weeks, namely 44% for fatigue, 51% for tension, 57% for relief, 63% for goal progress as well as 63% for unfinished tasks and 70% for evening work.

Testing of Hypotheses

Table 1 shows the descriptive statistics, reliabilities, and correlations of the measures used in this study. Table 2 depicts the results of multi-level regression analysis.

Hypothesis 1 stated that, on a daily basis, unfinished tasks at the end of a workday are positively related to feelings of tension and fatigue in the evening. According to the results, daily unfinished tasks at the end of a workday predicted at bedtime increased feelings of tension ($B = .06, p = .002$), whereas there was no effect for fatigue ($B = .002, p = .47$). For this reason, hypothesis 1 was only partially supported.

According to hypothesis 2, resuming work in the evening moderates the link between unfinished tasks and tension and fatigue, whereas the relationship is stronger for employees resuming work in the evening compared to those who did not. Firstly, the results showed that on days when employees worked in the evening, they felt more tension ($B = .14, p < .001$) and fatigue ($B = .11, p = .02$). Secondly, with regard to the moderating effect postulated in hypothesis 2, supplemental evening work did not moderate the effect of unfinished tasks on bedtime tension nor fatigue on a daily basis. In other words, unfinished tasks were not related to more tension ($B = .07, p = .10$) and more fatigue ($B = .07, p = .16$) on days when employees worked additionally in the evening compared to the days without supplemental evening work. In sum, hypothesis 2 is not supported as no moderating effects of daily evening work on the tested facets of well-being were found.

Hypothesis 3 postulated the effect of unfinished tasks on tension and fatigue (a) and on relief (b) is weaker when employees notice goal progress than for those who do not experience any goal progress.

Within-person daily experienced goal progress during supplemental evening work was neither related to fatigue ($B = -.10, p = .12$) nor relief ($B = .16, p = .10$), whereas it was negatively related to tension ($B = -.13, p = .03$) at bedtime. With regard to the moderation effect postulated in hypothesis 3, goal progress when resuming work-related tasks in the evening only moderated the effect of unfinished tasks on relief ($B = .33, p < .001$) on a daily basis, while no

effect was found either for tension ($B = -.05, p = .15$) or fatigue ($B = -.04, p = .38$). Thus, hypothesis 3 is only partially supported.

Discussion

This diary study aimed to explore the influence of unfinished tasks on well-being at the end of the day in combination with supplemental evening work and experienced goal progress. For this purpose, we focused on three aspects of affective well-being, namely tension, fatigue and relief, and investigated to what extent resuming work-related tasks during job-off hours in the evening moderates this relationship and what role the experienced goal progress plays.

Our results first showed that unfinished tasks at the end of a working day only increased the feeling of tension but not of fatigue. This finding is consistent with prior research evidence, namely that unfinished tasks compromise well-being (Peifer et al., 2019; Syrek & Antoni, 2014). According to Zeigarnik (1927, 1938), the niggling preoccupations with unfinished tasks trigger feelings of tension. Regarding fatigue, it is plausible that these preoccupations and the higher emotional load caused by increased tension hinder the recovery process and the awareness of fatigue. Because the tasks remain incomplete, the tension is in the foreground and pushes the normally occurring feeling of fatigue at the end of a working day into the background. This could explain the non-existent effect of fatigue.

Secondly, in investigating to what extent supplemental evening work impacted affective well-being at the end of the day, our results showed that resuming work-related tasks strengthened both the effects of tension as well as fatigue. The postulated moderating effect of supplemental evening work on this relationship between unfinished tasks and evening affect could not be found. In line with the E-R Model (Meijman & Mulder, 1998) and because supplemental evening work is at the expense of recovery (Sonnentag & Frese, 2003) given that

the same resources are consumed as during the day (Sonnentag, 2001), we showed that work-related effort during leisure time is negatively related with low tension, as did Sonnentag and Zijlstra (2006). Next to this strengthening effect of supplemental evening work on tension, our results point to its impact on fatigue which correlates with prior findings (e.g., Garrick et al., 2018). With regard to the non-existent moderation effect, resuming work-related tasks during job-off hours might be considered a strategy to reduce the load resulting from unfinished tasks. This supplemental evening work seems to be less a means to an end but mainly an additional effort that consumes resources, particularly when there is no sign of goal progress on the unfinished tasks.

Finally, and to better understand the role of supplemental evening work, we were interested in the role of experienced goal progress on well-being when work-related tasks were resumed in the evening. According to our results, goal progress only reduced the feeling of tension but not that of fatigue. Moreover, and based on the theoretical derivations, we added a positive affective state to this study of goal progress. Interestingly, only the postulated moderation effect of goal progress on the relationship between unfinished tasks and well-being showed that employees who report more goal progress while working benefit significantly from more positive affect, i.e. relief. Previous studies have shown that goal progress promotes positive (Amabile & Kramer, 2011; Harris et al., 2003) and decreases negative affect (Klug & Maier, 2014; Wiese & Freund, 2005). We replicate this association with this so far poorly-explored facet of positive affect. Since we have not yet found a specific study that examines the influence of goal progress in connection with unfinished tasks and supplemental evening work on affective well-being, we offer initial findings and encourage researchers to investigate these results more closely. Following Carver and Scheier's Control Theory (1982), goal progress is an indicator of advancement in unfinished tasks in that it reduces the discrepancy between the original and the resulting status, which in turn promotes positive affect and reduces

strain. Therefore, experiencing goal progress is a sign that the supplemental effort of work-related tasks during job-off hours has been worthwhile.

In summary, unfinished tasks from the working day affect our well-being at bedtime by making us more tense in the evening. Resuming work-related tasks during job-off hours is only helpful and allows us to feel relief when goal progress is experienced, otherwise it only increases the feeling of tension and adds fatigue. In other words, in the case of unfinished tasks at the end of a workday, employees should only resume work in the evening if they are confident of experiencing goal progress, otherwise it will only further negatively affect their well-being.

Limitations and future directions

Our study reveals three distinctive strengths. Firstly, we were able to study the effect of unfinished tasks related to evening work on a daily basis and to determine its influence on affective well-being by examining both negative and positive affect. Thus we answered the call of Syrek and Antoni (2014), who pleaded for more study on positive affect. Overall, we also expanded the current body of research, still in its infancy, on unfinished tasks in combination with supplemental evening.

Secondly, our study provides a first investigation of relief. Relief is an affective state relevant in combination with unfinished tasks, evening work and goal progress, which has been largely ignored so far, however. Although we did not have a scale to capture this construct, a single item could still produce valid results. The use of single items may be controversial because of their lower reliability, but we are confident that we have managed to measure the feeling of relief precisely. The use of single-items is particularly common in happiness research which also deals with positive affect (Lyubomirsky et al., 2005) and other test batteries that include both valences, such as the Geneva Emotional Wheel which successfully uses single-

word items to describe affective states and which, as also in our case, measures the single-word item "relief" (Sacharin et al., 2012). According to Postmes et al. (2013), the use of single-word items is all the more interesting when effects are found because the construct measures the aspect intended for investigation.

Thirdly, our results indicate various practical implications that are relevant for both employers and employees with regard to their well-being. The significant moderation on goal progress points out that employees who are stressed by unfinished tasks, and therefore want to work in the evening, should set themselves minor goals so as to ensure experienced goal progress and to suppress the negative emotions that were present beforehand due to unfinished tasks. Locke and Latham's Goal-Setting Theory (2002) offers a suitable approach for formulating goals in a more targeted manner so that the work tasks employees undertake to complete are more likely to be achieved. Managers should advise employees who work at home in the evenings how to set appropriate goals that not only motivate, but also ensure these set goals are achieved during normal working hours. For managers, our results also include the insight that tasks should be allocated in such a manner that visible progress in task completion is likely. Consequently, unfinished tasks can and must be avoided at the end of the workday due to their detrimental influence on employees' well-being and because employers have to be committed to their workers' welfare. In the case of unfinished tasks, it is important for employees to consider whether supplemental work in the evening is worth their while, as working in itself only increases the negative effects of the unfinished tasks. Only when goal progress is experienced does it make sense to work during job-off times. According to the E-R Model (Meijman & Mulder, 1998), great emphasis should be placed on the feeling of control, which is why active participation in the design of tasks and their distribution appears all the more important in order to avoid the negative influences of unfinished tasks. Better

communication is needed to emphasize the negative influence of this work-related stressor, viz. unfinished tasks, in order to draw attention to its harmful consequences.

With regard to limitations, we identified three aspects that future studies could address. Firstly, with regard to the sample surveyed, it can be said that the employees who took part in the survey worked for an average of only 15 minutes in the evening. If this short working time already shows significant effects, it would be interesting to discover the effects of one or more hours of evening work-related tasks that have been left uncompleted from the day. This raises the question about when working in the evening starts to have a negative effect on well-being.

Secondly, attention should be paid to a more balanced distribution within the sample in terms of educational background, given that in our case nearly 64% of all participants hold a university degree. As research evidence (e.g., Almeida, 2005) suggests that people of higher socio-economic status regulate strain differently, namely that stressors affect them less than those of lower socio-economic status, a more considered sample composition could lead to different results and so exhibit more the impact of evening work and unfinished tasks on their well-being.

Thirdly, although we are contributing to the broadening of the literature on unfinished tasks, future studies could more closely address the characteristics of the unfinished tasks. For example, and in line with the suggestions by Syrek and Antoni (2014), it could be taken in account whether these tasks are attractive (Pychyl et al., 2000), their urgency in completion and their priority over other tasks (Ashford & Northcraft, 2003; Claessens et al., 2010) or if they were initially planned (Gollwitzer, 1999). In a similar vein, by whom the tasks have been assigned might influence the affective outcomes, as for example tasks assigned by others (e.g., supervisor) could be perceived as more urgent than self-assigned tasks and so create more tension. These aspects in the context of evening work might be of importance, as in our study

we only determined the extent to which employees were taking on work-related tasks and whether goal progress was experienced while working at the end of the day.

Conclusion

On the basis of our study, we were able to provide proof of the negative influence of unfinished tasks on affective well-being in the evening. Furthermore, we showed that it is not the supplemental evening work during job-off hours per se that reduces the strain, but rather the experienced goal progress during this personal effort that can both reduce tension and lead to relief. Therefore, working in the evening can work (and positively influence one's well-being).

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Table 1

Means, standard deviations and correlation between the study variables on between and within-level

Variable	<i>M</i>	<i>SD</i> _{L2}	<i>SD</i> _{L1}	ICC	1	2	3	4	5	6	7	8	9
1. Unfinished tasks (w)	1.59	0.87	0.70	0.63	.61	.06 ^o	-.31***	.19***	.08*	.11***	-.00	-.15***	-.07 ^o
2. Evening Work (b)	0.23	0.42	0.40	0.70	.02	-	.44	.04	.04***	-.03	.08*	-.04	-.04
3. Goal Progress (b)	3.86	0.82	0.64	0.63	-.47**	.06	.48	.13***	-.21***	-.17***	-.24***	.22***	.15**
4. Tension (w)	1.55	0.71	0.53	0.54	.38**	.02	-.37**	.66	.38***	.37***	.35***	-.27***	-.15***
5. Tension (b)	1.43	0.61	0.44	0.51	.25**	.10**	-.33**	.67**	.63	.12***	.29***	-.24***	-.23***
6. Fatigue (w)	2.16	0.93	0.64	0.48	.25**	-.08**	-.27**	.49**	.39**	.78	.40***	-.14***	-.09***
7. Fatigue (b)	2.49	0.98	0.65	0.44	.17**	-.03	-.26**	.39**	.41**	.68**	.79	-.17***	-.15***
8. Relief (w)	2.66	1.10	0.83	0.57	-.16**	-.03	.29**	-.24**	-.22**	-.17**	-.16**	-	.26***
9. Relief (b)	2.58	1.09	0.82	0.57	-.09**	-.00	.24**	-.19**	-.22**	-.16**	-.18**	.55**	-

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. The following abbreviations refer to the time of measurement: (w) = end-of-work, (b) = bedtime. Between-person correlations are below the diagonal, within-person correlations are cited above. *SD*_{L1} = within-person standard deviation, *SD*_{L2} = between-person standard deviation. The between-days internal consistencies of the scales are mentioned into the diagonal. Level 1: *N* = 641-1771; level 2: *N* = 240. ICC refers to the total variance between-days.
^o indicates $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2*Multilevel Prediction of End-of-Work Unfinished Tasks on Bedtime Tension and Fatigue*

Predictors	Tension		Fatigue	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Daily Unfinished Tasks	0.06*	0.02	0.00	0.03
Evening Work				
Evening Work	0.14*	0.04	0.11*	0.05
Evening Work * Unfinished Tasks	0.07	0.06	0.07	0.07
Goal Progress				
Goal Progress	-0.13*	0.07	-0.10	0.09
Goal Progress * Unfinished Tasks	-0.05	0.05	-0.04	0.11

Note. Above are parameter estimates. The postulated hypotheses were tested one-tailed.
 * $p < .05$, *** $p < .001$.

Table 3*Multilevel Prediction of End-of-Work Unfinished Tasks on Bedtime Relief*

Predictors	Relief	
	<i>B</i>	<i>SE B</i>
Daily Unfinished Tasks	-0.07	0.05
Evening Work		
Evening Work	-0.08	0.06
Evening Work * Unfinished Tasks	0.00	0.12
Goal Progress		
Goal Progress	0.16	0.12
Goal Progress * Unfinished Tasks	0.33***	0.11

Note. Above are parameter estimates. The postulated hypotheses were tested one-tailed.

* indicates $p < .05$, *** $p < .001$.

Figure 1

Conceptual model of our study

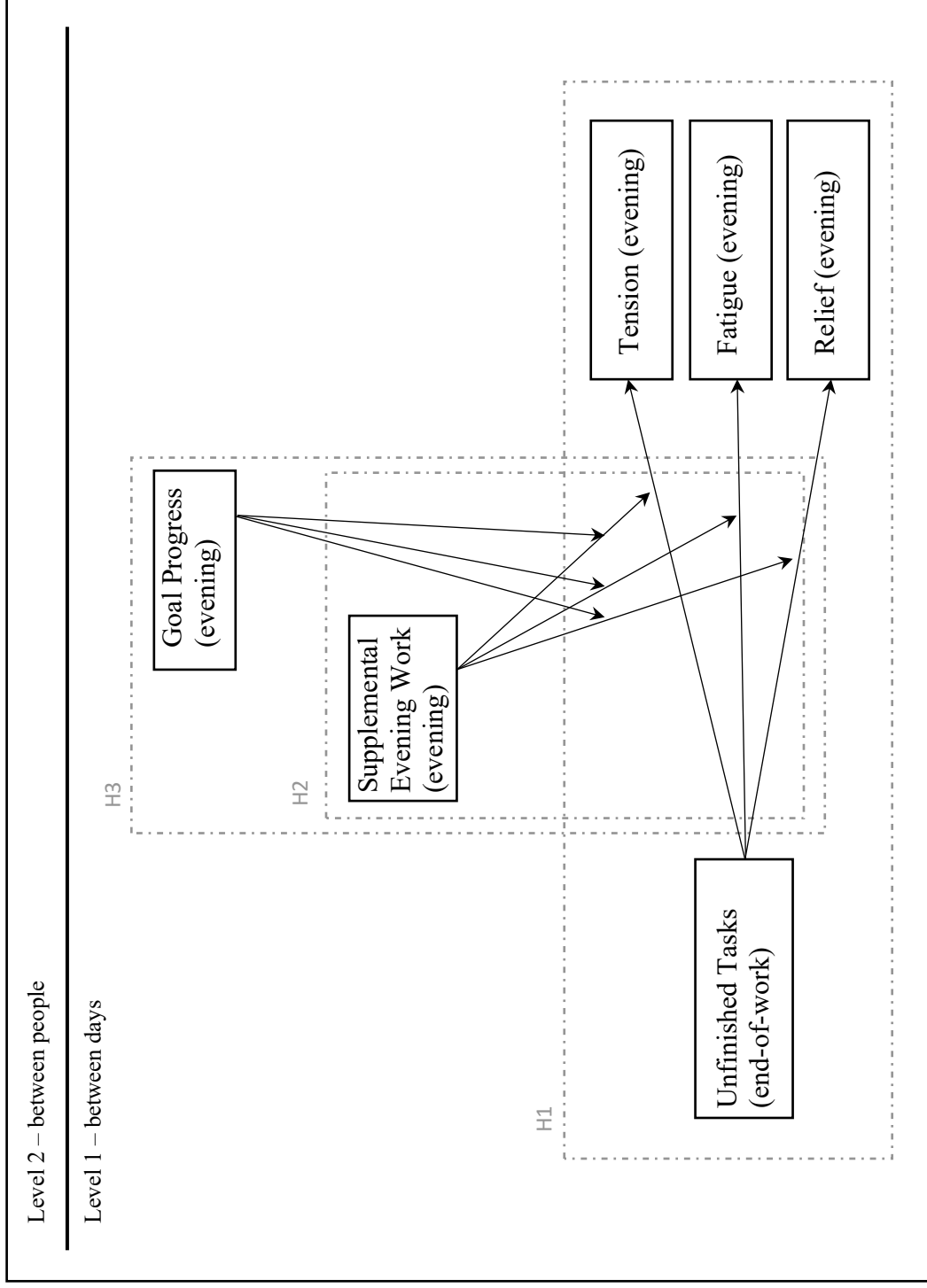


Figure 2

Interactions between supplemental evening work and unfinished tasks predicting bedtime tension, fatigue and relief at within-person level

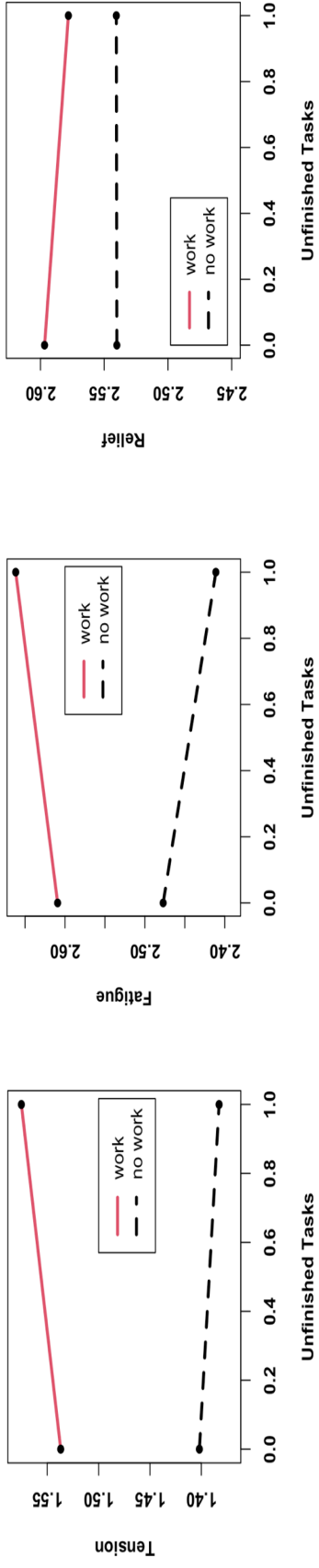
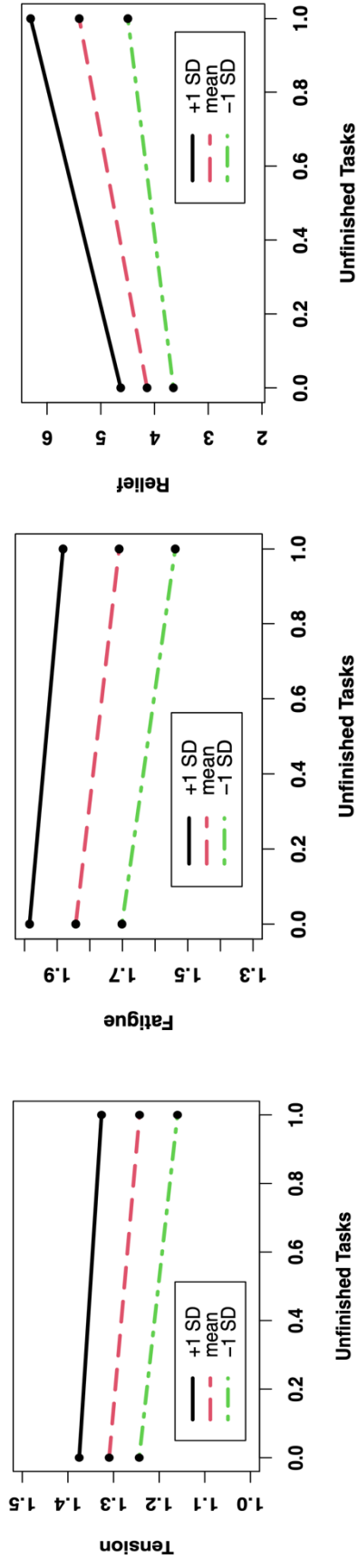


Figure 3

Interactions between goal progress while working and unfinished tasks predicting bedtime tension, fatigue and relief at within-person level



2.4. Study 2: Supplemental Evening Work and Prior Leisure Activities

The first study examined the impact of unfinished tasks on well-being and the extent to which working in the evening as well as perceived goal progress which moderate this relationship. It was shown that unfinished tasks at the end of the working day impact negatively on well-being, and that working in the evening intensifies this effect. Only when the participants experienced goal progress was it conducive to their well-being. As suggested by Weigelt and Syrek (2017), working in the evening represents a coping strategy to complete unfinished tasks and catch up on performance losses during the day. Based on our findings, we are also of the opinion that supplemental evening work represents a risk behavior for one's well-being. In a second study, we now explore whether these negative effects of supplemental evening work on well-being may be moderated, for example by specific leisure time activities *prior to recommencing work*, as research has so far overlooked this. The following sections briefly summarize the train of thought on which this second study is based.

Following Meijman and Mulder's Effort-Recovery Model (1998), putting effort into work-related tasks allows, on the one hand, an increase of performance outcomes but, on the other, implies further psychophysiological load reactions due to work exertion, such as more fatigue, increased heart rate or negative affect. Thus, sufficient recovery opportunities are relevant not only to reduce work-related strain from the workday, but also to build up resources so as to withstand future demands. Previous findings also confirm this negative effect of carrying out work-related tasks in the evening, namely deteriorated general well-being, less vigor and psychological detachment at bedtime (Mojza et al., 2010; Sonnentag, 2001; Sonnentag & Natter, 2004).

In keeping with this line of reasoning, regular recovery from the demands of the workday is important (Sonnentag, 2003) to avoid long-term negative effects of supplemental evening work on well-being. Therefore, leisure activities aimed at recovery should not only aid

mental distraction from the daily work routine (Yeung, 1996) but also allow the build-up of depleted resources. Accordingly, leisure activities can be characterized as a goal-oriented coping strategy to manage daily work problems and to foster one's own well-being.

The Conservation of Resources theory (Hobfoll, 1998) presented earlier in this dissertation serves as an explanatory mechanism for the effectiveness of restorative leisure time activities on well-being. According to this theory, people strive both to conserve their personal resources (e.g., energy, attention) and boost depleted resources as well as build-up new ones. At the same time, it emerges that draining personal resources over a longer timespan hinders the regeneration process, thus paving the way for long-term health problems. Therefore, engaging in leisure activities aimed at rebuilding resources depleted during the workday help one to adequately cope with future stressful situations.

Leisure time activities can adopt many forms, with certain activities involving duties to be discharged (Sonnentag, 2001), according to whom household or childcare tasks provide a temporary distraction but are less subject to postponement, which is why they contribute less to recovery. In contrast, so-called low-effort tasks (e.g., reading, taking a bath), social activities (e.g., meeting friends, phoning), or physical activities (e.g., jogging, cycling, swimming), which can be described as low-duty behaviors, are more likely to trigger the necessary psychophysiological recovery processes and thus contribute to well-being.

Regarding the effect of household and childcare activities on well-being, previous research findings paint a rather mixed picture. While on the one hand further energy consumption in these high-duty tasks leads to a lower sense of recovery, to increased evening fatigue, a hindered psychological detachment at bedtime as well as sleep problems (Åkerstedt et al., 2002; Grandey & Cropanzano, 1999; Oerlemans et al., 2014; ten Brummelhuis & Bakker, 2012b), other findings provide no effects (e.g., Sonnentag & Zijlstra, 2006; ten Brummelhuis & Trougakos, 2014).

Low-effort tasks (e.g., reading a book or watching television) are characterized by passivity as they require little effort to perform and therefore consume fewer resources (Sonnentag & Zijlstra, 2006). Again, the state of research does not suggest a consistent picture. On the one hand, on days when low-effort tasks are performed there is no effect on either evening fatigue and feelings of recovery or psychological detachment from work (e.g., Oerlemans et al., 2014; Rook & Zijlstra, 2006; Sonnentag & Bayer, 2005; Sonnentag & Zijlstra, 2006). On the other, studies confirm improved well-being and better cognitive switch-off on days when low-effort tasks are performed (e.g., Sonnentag, 2001; ten Brummelhuis & Bakker, 2012b).

Experiencing social support, for example meeting friends or interacting with the intimate partner, has been shown to be a key mechanism in coping with stress (see Bodenmann, 1995; Viswesvaran et al., 1999). The majority of research findings point to the positive effects of social activities during leisure time on well-being. On days when social activities are carried out, they are related to less fatigue and exhaustion, people feel more recovered, enjoy more positive moods and better well-being (e.g., Sonnentag, 2001; Sonnentag & Zijlstra, 2006; ten Brummelhuis & Bakker, 2012b; ten Brummelhuis & Trougakos, 2014; Van Hooff et al., 2011).

Exercising is commonly known to be beneficial to the mind and spirit. Previous research findings on work stress and leisure activities tend to confirm the positive influence of sport, namely increased general well-being and a positive mood, an improved ability to mentally switch off from work and a reduced need for recovery in the evening (e.g., Feuerhahn et al., 2014; Sonnentag, 2001; Sonnentag & Bayer, 2005; Sonnentag & Zijlstra, 2006). In terms of feelings of fatigue, results are mixed (Garrick et al., 2018; Rook & Zijlstra, 2006; Sonnentag & Bayer, 2005; ten Brummelhuis & Trougakos, 2014). Although additional energy is required during exercising, different resources are consumed than during the workday (Sonnentag & Zijlstra, 2006), making exercising an effective means of coping despite the additional effort.

Roughly summarized, household and childcare tasks are likely to hamper the development of further resources. As they are often experienced as mandatory, they can hardly be postponed and thus tend to have a negative impact on well-being. In contrast, low-effort, social and physical activities are assumed to provide cognitive distraction and contribute to resource building, which in turn positively affects well-being.

To link this knowledge on leisure activities to the findings of the first study of this dissertation, one question arises: Do leisure time activities *performed prior to supplemental evening work* contribute to a build-up of resources and thus attenuate the negative effect of supplemental evening work on well-being? Although the concept of recovery and, more specifically, leisure activities have been investigated for years, the respective studies focused mainly on their effects on well-being at the end of the working day. In addition, as evidenced in the first study of this dissertation, engaging in supplemental evening work is likely to damage well-being. Interestingly, research has so far overlooked combining both topics, namely leisure activities with supplemental evening work in their relation to well-being. In a second study described on the following pages, we therefore address this research question in more detail by investigating the moderating role of leisure activities performed *after* the workday but *prior to* supplemental evening work on facets of well-being (i.e., fatigue, recovery and psychological detachment). The conclusions drawn from this study will make it possible to understand more precisely the phenomenon of supplemental evening work and its influence on well-being, as well as contribute to the current state of research on recovery and propose practical advice.

Study 2

On supplemental evening work, leisure activities and well-being

**First Leisure, Then Business! How Leisure Activities Impact the Relationship Between
Supplemental Evening Work and Well-Being**

Cyril Chariatte and Laurenz L. Meier

University of Neuchâtel, Switzerland

Author Note

Cyril Chariatte, Institute of Work and Organizational Psychology, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland. Correspondence regarding this article should be addressed to Cyril Chariatte, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland.

Abstract

Because resuming work in the evening depletes personal resources, engaging in leisure activities contributes towards regenerating energy levels and facing the upcoming strain. In this study, we expected the effect of supplemental evening work on fatigue, recovery and psychological detachment to be weaker on days when employees engage in prior low-effort, social or physical activities, whilst family demands such as household or childcare tasks strengthen the effects of daily evening work (more fatigue, less recovery and less detachment). Building on the Effort-Recovery Model and the Conservation of Resources theory, we ran a diary study among 85 teachers over two weeks and explored how supplemental evening work affects well-being, positing higher fatigue, less recovery and psychological detachment. According to multilevel modeling, supplemental evening work was related to less recovery and decreased psychological detachment but not to fatigue. Engaging in low-effort tasks related positively to detachment and negatively to recovery, whereas socializing reduced fatigue and promoted recovery. In contrast, reduced recovery was predicted in cases of socializing activities preceding supplemental evening work. Finally, engaging in physical activities prior supplemental evening work facilitated psychological detachment at bedtime. In line with previous research, our study points to the detrimental effects of resuming work-related tasks in the evening and to how prior leisure activities may mitigate these effects on well-being. Specifically, exercising proved to be particularly helpful in reducing work-related strain by helping the teachers switch off mentally in the evening.

Keywords: supplemental evening work, leisure activities, diary study, well-being

First Leisure, Then Business! How Leisure Activities Impact the Relationship Between Supplemental Evening Work and Well-Being

Recovery from work-related strain is a major topic in Organizational Health Psychology (Sonnentag et al., 2017) given the importance of recuperation from work strain for long-term well-being (Sonnentag, 2003). Recovery, defined as an unwinding process from psychophysiological strain symptoms due to specific stressors up to a pre-stressor level (Meijman & Mulder, 1998), can occur when activities are performed that provide mental distraction (Sonnentag & Bayer, 2005) and do not deplete the same resources as during the workday (Sonnentag, 2001). To rest and build up new personal resources in their non-working time, stressed employees may engage in various leisure activities, such as physical (e.g., swimming, biking, running) or social activities (e.g., meeting friends, phoning, socializing) and low-effort tasks (e.g., reading a book, watching television, napping). Engaging in leisure time activities intended to achieve relaxation is of great importance as it reduces evening fatigue (Van Hooff et al., 2011) and depressive symptoms (Sonnentag & Natter, 2004), improves mental switching off (ten Brummelhuis & Bakker, 2012), and promotes positive affect at the end of the day (Feuerhahn et al., 2014). However, more and more individuals perform work-related tasks during their leisure time, for example in the evening. In comparison to leisure activities unrelated to work and aimed at recovery, a work-related effort in the evening is more likely to be at the expense of recovery time and constitutes a threat to well-being in that it can lead to less recovery and more fatigue (Garrick et al., 2018; Meijman & Mulder, 1998).

In this paper, we focus on the leisure activities engaged in both after work and before taking on work-related tasks in the evening. That is, we study the resumption of work-related tasks during the evening as it reflects behavior that may negatively affect well-being, and leisure activities used to build resources in advance to mitigate such effects. Regarding evening work, the Effort-Recovery Model (Meijman & Mulder, 1998) is a useful framework to

understand the associated strain and its threat to wellbeing. Additionally, we draw on the Conservation of Resources theory (Hobfoll, 1998) to explain the gaining of resources through engaging in post-work leisure activities intended to improve relaxation. Building on these theoretical approaches, we assume that work-related activities during job-off hours negatively affect well-being by increasing fatigue and thus decreasing the feeling of recovery as well as the ability to detach psychologically. Furthermore, we assume that these leisure activities performed after regular working hours but prior to supplemental evening work attenuate negative impacts on well-being.

By investigating on a daily basis leisure activities aimed at recovery and carried out prior to resuming work in the evening, we extend the current state of research in two ways. First, by exploring the resumption of work-related tasks in the evening after a workday we shed light on its consequences on employees' affective and cognitive well-being, thereby broadening our understanding as it has become a common trait in the daily lives of working people. For employees, being aware of the consequences of supplemental evening work might prevent an increase of health problems.

Second, we contribute to the existing body of findings on recovery by specifically focusing on the effect on well-being of leisure activities performed prior to taking on work-related tasks in the evening, using diary methods. Apart from the fact that recuperation is of importance for facing upcoming demands and preventing persistent health problems (Meijman & Mulder, 1998), we know from previous studies on leisure activities (e.g., Grandey & Cropanzano, 1999; ten Brummelhuis & Bakker, 2012), that tasks involving a tacit high sense of duty, such as household tasks or childcare (Sonnentag, 2001), may lead to more fatigue, less detachment and less recovery, and thus pose a threat to well-being. Further, engaging in low-duty tasks, such as low-effort social or physical activities, harbors the potential to build up new resources impacting positively on well-being (e.g., Rook & Zijlstra, 2006; Sonnentag &

Zijlstra, 2006; ten Brummelhuis & Bakker, 2012). Interestingly, most studies investigated how activities taking place after a workday influence daily work-related strain but ignored the moderating role of prior leisure activities on the relationship between evening work-related tasks and well-being. Thus, combining both behaviors in our investigations, namely leisure activities after a workday with the subsequent resumption of work-related tasks, allows us firstly to formulate practical guidelines for more rest and the adoption of a healthier lifestyle for employees and, secondly, to explore what weight the performance of work-related tasks during leisure time has for recovery. From this point of view, it is important to better understand how supplemental evening work affects well-being. Therefore, our study contributes to the current state of research by providing a deeper understanding of the short-term effects of evening work and prior leisure activities on a daily level.

Work-related activities in the evening as resource-depleting behavior

Although leisure activities can be helpful in providing a mental distraction and building up new resources, they might also stimulate the depletion of remaining resources, such as is likely when work-related tasks are performed in the evening. In the last decades, the resumption of supplemental work at home outside regular working hours has become a widespread phenomenon, specifically due to new ways of working and the use of technological devices (Demerouti et al., 2014; Venkatesh & Vitalari, 1992). This phenomenon constitutes an additional effort after a regular workday at the expense of leisure time resulting fewer opportunities for the recovery (Sonnentag, 2003) necessary to regenerate new internal resources (Sonntag & Fritz, 2007) and counteract chronic overload (Meijman & Mulder, 1998). To explain its influence on well-being and to highlight its relevance for recovery, we refer to the Effort-Recovery Model by Meijman and Mulder (1998). The Effort-Recovery Model (E-R Model) states that putting effort into work-related tasks on the one hand allows an

increase of performance outcomes but, on the other hand involves further psychophysiological load reactions such as more fatigue, increased heart rate or negative affect. To reduce these acute psychophysiological reactions and return to a pre-stressor level, no further demands should be put on the individual so that recovery processes can occur. Thus, sufficient recovery opportunities are relevant not only to reduce work-related strain but also to build up resources to withstand future demands. The longer the work-related effort lasts, the more recovery is subsequently needed. However, recovery can only occur when activities are performed that do not exploit the same resources as during the workday (Sonnentag, 2001). A prolonged exposure to work-related demands is particularly detrimental to well-being as it leads to accumulated insufficient recovery (Geurts & Sonnentag, 2006) and paves the way for chronic load reactions, such as physical problems (Åkerstedt, 2006; Devereux et al., 2011). Applying the E-R Model, supplemental evening work represents additional draining of resources after a regular workday that comes both at the expense of leisure time and provides fewer opportunities for recovery (Sonnentag, 2003). In line with this reasoning, it can be assumed that supplemental evening work results in more fatigue, less recovery and less detachment at bedtime, given the continuous mental preoccupation with work-related tasks (Cropley et al., 2006; Sonnentag & Bayer, 2005), because the same resources are used as during the workday (Sonnentag, 2001).

Research findings commonly show the detrimental effect of carrying out work-related tasks in the evening on well-being. For example, employees who perform work-related tasks in the evening complain about compromised general well-being (Sonnentag, 2001; Sonnentag & Zijlstra, 2006) and were less able to mentally detach from work (Mojza et al., 2010; Volman et al., 2013). Resuming work-related tasks is associated with less vigor and happiness (Bakker et al., 2013; Sonnentag & Natter, 2004) at bedtime, and even on the next day (ten Brummelhuis & Bakker, 2012). Additionally, supplemental evening work is positively related to fatigue (e.g., Garrick et al., 2018) as well as exhaustion the next morning (ten Brummelhuis & Bakker,

2012), although this finding is not consistently found in research (e.g., Sonnentag & Natter, 2004). Furthermore, findings show that individuals reported a greater need for rest (Sonnentag & Zijlstra, 2006) and experienced less recovery at the end of the day (ten Brummelhuis & Trougakos, 2014). Overall, however, the conclusions prevail that engaging in supplemental evening work has a negative impact on well-being.

Supplemental work carried out in the evening represents an additional workload at the expense of leisure activities and embodies potential harm to well-being. More specifically, because it depletes the resources already used up during the day (Sonnentag, 2001), it is likely to affect fatigue. Furthermore, as less time is dedicated to recovery from daily demands, employees resuming work-related tasks in their free time might report less recovery. Finally, the continuous mental preoccupation with work-related tasks while working in the evening impedes cognitive switch-off at bedtime. Considering these aspects, we have a closer look at these three specific facets of well-being, namely fatigue, recovery and psychological detachment.

Building on the E-R Model (Meijman & Mulder, 1998) and previous findings, we posit that engaging in supplemental evening work instead of resting is negatively related to well-being in terms of less mental detachment from work. Given that work-related thoughts will keep recurring, subjects experience more fatigue and feel less recovered.

Hypothesis 1: On a daily basis, supplemental evening work is positively related to fatigue, and negatively to recovery and psychological detachment at bedtime.

Leisure activities as a resource-building opportunity

Engaging in leisure activities allows detachment from the workday's demands and serves to regenerate new personal resources so that upcoming stressors can be handled. In other words, recovering during leisure time is a fundamental goal in everyday work life and

facilitates the essential purpose of counteracting long-term harmful demands on the organism, and its psychological and physiological processes, by protecting and building up personal resources. According to Craig and Cooper (1992), recovery refers to the processes of restoration and unwinding aimed at lowering strain to a pre-stressor level due to stressors or other demands. Sonnentag and Fritz (2015) additionally point out that recovery allows a sense of relief from work-related demands in particular.

To achieve this pre-stressor level through recovery, individuals engage in different activities during their leisure time. Sonnentag (2001) draws attention to the fact that leisure activities have a more or less pronounced degree of duty fulfillment, as may be the case with work-related tasks, housework, or childcare. On the other hand, activities which are tailored to relaxation and which do not impose additional demands on the individual, such as so-called low-effort tasks (e.g., watching TV, reading a book, taking a bath), maintaining social contacts (e.g., meeting friends, phoning with relatives), or exercising (e.g., jogging, cycling), can be undertaken.

The Conservation of Resources (COR) theory (Hobfoll, 1998) explains why recovery activities impact positively on well-being. The theory states that individuals strive to preserve resources and build up depleted ones to better cope with upcoming demands. Additionally, individuals who already benefit from sufficient personal resources (e.g., energy, time) are more likely to put effort into building up supplemental resources. It follows that the more resources can be built up, the easier it is to acquire additional resources (resources gain spiral). Conversely, the more resources have been consumed, the more difficult it becomes to invest in new ones (Hobfoll, 2001). Moreover, the COR theory specifies that depleting resources often weighs more heavily than gaining new ones. Therefore, exposing oneself permanently or during longer periods to demands, such as work demands, should be avoided as the regeneration phase for new resources is too short.

Linking the COR theory to leisure activities carried out after work or during free time, leisure activities help build up new resources and foster coping behavior in light of upcoming stressful situations. Although the theory generalizes the nature of resources as elements that people value, these can be, for example, social support experienced by work colleagues, close family members or friends (Halbesleben & Wheeler, 2015), or gained energy (Sonnentag et al., 2008) resulting from activities such as engaging in physical activities or low-effort tasks like reading a book. As different demands than during the workday are placed on the individual when performing such leisure activities, they enable one to cognitively switch off from work and recover while engaging in activities that give pleasure.

Family demands: household & childcare activities

Tasks characterized by a high sense of duty, such as childcare or household tasks (Sonnentag, 2001), places additional demands on the individual because they require more effort despite existing fatigue, thus depleting additional resources. As they often cannot be postponed, these high-duty tasks in turn endanger one's well-being by consuming further resources and thus increasing strain (e.g., higher fatigue) instead of offering the possibility for recovery or mental distraction.

In relation to family demands which include housework and childcare, pointers from research show that these high-duty activities have a particularly fatiguing effect (Grandey & Cropanzano, 1999), lead to sleep problems (Åkerstedt et al., 2002) and are negatively associated with recovery (Oerlemans et al., 2014) and relaxation (ten Brummelhuis & Bakker, 2012) at the end of the day. With regard to psychological detachment, engaging in household chores reduces psychological detachment at bedtime (ten Brummelhuis & Bakker, 2012). However, such tasks may include pleasurable elements (e.g. time dedicated to children, cooking), which is why some studies did not reveal an impact on well-being (e.g., Sonnentag

& Zijlstra, 2006; ten Brummelhuis & Trougakos, 2014). In summary, and although the findings are mixed, household and childcare necessitate a considerable amount of effort and have the potential to drain more resources than they build up after a workday.

In line with the COR theory (Hobfoll, 1998), and taking the research findings into account, it can be assumed that family demands and associated tasks with a high-duty profile, such as housework and childcare, offer little opportunity to build-up resources and may not contribute positively to recovery, given that they have to be performed additionally after work, can seldom be postponed and thus provide an additional challenge at the end of the day. Furthermore, if one considers that work-related tasks are additionally performed once people have already done these resource-consuming household or childcare duties, a build-up of new personal resources to face the later work efforts hardly seems possible. Thus, the later resource consumption due to work-related tasks in the evening cannot be mitigated. In other words, engaging in family demands represents an energy-consuming duty that amplifies the effect of evening work on well-being by leading to more fatigue, less recovery and reduced psychological detachment. As research has thus far overlooked moderating effects of evening leisure activities on daily workload, we hypothesize that on days when household tasks and childcare activities are performed prior to supplemental evening work, the negative impact of supplemental evening work and well-being is stronger.

Hypothesis 2a and 2b: Engaging in household tasks (2a) and childcare (2b) moderates on a daily basis the link between supplemental evening work and fatigue, recovery and psychological detachment. The relationship is even stronger for people engaging in household tasks (2a) and childcare (2b) before resuming work in the evening compared to employees who did not.

Low-effort, social and physical activities during free time

To relax and distract oneself mentally, one can also engage in activities with a low-duty content, as is the case with low-effort social or physical activities (Sonnentag, 2001). In the case of low-effort tasks that require little effort and are characterized by an increased degree of passivity, thus depleting fewer resources (Sonnentag & Zijlstra, 2006), as is the case with reading a book or watching television, research shows mixed results. Sonnentag and Jelden (2009) suggest that employees are more likely to spend time in low-effort tasks than in physical activities, when they lack energy because of situational job constraints. Moreover, studies suggest no relationship with mental switch-off (e.g., Sonnentag & Bayer, 2005), a positive relationship to fatigue (Rook & Zijlstra, 2006), or a missing reduction of the need for recovery (Sonnentag & Zijlstra, 2006). In some studies it is evident that on days when low-effort tasks are performed, these activities did not affect well-being, neither did they enhance a positive mood, reduce depressed moods or fatigue (Garrick et al., 2018; Sonnentag & Natter, 2004) nor were they unrelated to recovery at bedtime on workdays (Oerlemans et al., 2014). On the other hand, a study by Sonnentag (2001) demonstrates that on days when teachers perform low-effort tasks, they report improved well-being and psychological switch-off from work (ten Brummelhuis & Bakker, 2012). Furthermore, the study of ten Brummelhuis and Trougakos (2014) reveals that people even felt less exhausted and more recovered the next morning.

With regard to social activities, they are not only a valuable pool of support that help build new resources (Hobfoll, 1998) and whose numerous positive effects on well-being have often been demonstrated (see Viswesvaran et al., 1999), they also represent a helpful tool in dealing with work stress (Fritz & Sonnentag, 2005). These positive effects of socializing stem from less preoccupation with work-related thoughts (Cromptley & Millward Purvis, 2003) and so contribute to an easier mental switch-off (ten Brummelhuis & Bakker, 2012) because of embeddedness in a communal network (Reis et al., 2000), and to minor strain due to less

emotional work (Sonnentag, 2001). Research findings overwhelmingly confirm the positive effects on well-being of socializing during leisure time, namely less fatigue (Van Hooff et al., 2011), a reduced need for recovery (Sonnentag & Zijlstra, 2006), increased positive mood (Oerlemans & Bakker, 2014; ten Brummelhuis & Bakker, 2012), higher levels of happiness (Bakker et al., 2013) and generally better well-being at bedtime (Fritz & Sonnentag, 2005; Sonnentag, 2001). People who have engaged in social activities even felt less exhausted and more recovered the following day (ten Brummelhuis & Trougakos, 2014). Although some studies found positive whereas others found negative effects (e.g., Rook & Zijlstra, 2006; Sonnentag & Natter, 2004), the positive findings prevail. Therefore, it can be assumed that engaging in social activities provides opportunities to distract oneself and at the same time build up new resources which should mitigate the subsequent negative impact of supplemental evening work.

Many people also engage in exercising. The beneficial role of physical exercise on health is widely documented (e.g., Oja et al., 2015) and it is a means of relaxation and mental distraction from work-related demands (Yeung, 1996). Although physical activities involve a certain effort, for the most part they consume different resources than during the working day (Sonnentag & Zijlstra, 2006) and thus pose less of a threat to well-being, as evidenced by various research findings. Not only is general well-being at bedtime increased on days when people exercised (Sonnentag, 2001), they reported a higher feeling of recovery (ten Brummelhuis & Trougakos, 2014) and a lower need to rest (Sonnentag & Zijlstra, 2006). Furthermore, physical activity predicted positive affect at bedtime (Feuerhahn et al., 2014; Sonnentag & Bayer, 2005). Similarly, it predicted vigor in the evening (Oerlemans & Bakker, 2014; Sonnentag & Natter, 2004) and the morning after (ten Brummelhuis & Bakker, 2012). Furthermore, individuals could better switch off mentally from work on days with physical exercise (Feuerhahn et al., 2014; ten Brummelhuis & Bakker, 2012) and reported fewer

depressive symptoms (Sonnentag & Natter, 2004). Regarding fatigue, some studies show a decrease in fatigue at bedtime and less exhaustion for individuals engaging in physical activities (Rook & Zijlstra, 2006; ten Brummelhuis & Trougakos, 2014). However, as some studies do not show an effect on fatigue (e.g., Garrick et al., 2018; Sonnentag & Bayer, 2005), it possibly explains that work demands draw on different personal resources than those used for physical exercise after work (Sonnentag & Zijlstra, 2006). In summary, the positive findings on well-being prevail with regard to exercising as a leisure activity aimed at recovery. Engaging in sports can therefore be considered a promising pastime for recovery and mental detachment from work.

Taking into account this line of reasoning based on Hobfoll's COR theory (1998), as well as the aforementioned findings and, as previously mentioned, because no moderating role of evening leisure activities has been explored so far, we hypothesize that engaging in either low-effort tasks or in social and physical activities after work helps mental switch off and recovery from work-related demands by restoring depleted resources and building up new ones.

Hypothesis 2c, 2d, and 2e: Engaging in low-effort tasks (2c), social (2d) or physical activities (2e) moderates on a daily basis the link between supplemental evening work and fatigue, recovery and psychological detachment. The relationship is weaker for people engaging in low-effort tasks (2c), social (2d) or physical activities (2e) before resuming work in the evening compared to employees who do not.

The Present Research

Building on the Effort-Reward Model (Meijman & Mulder, 1998) and the COR theory (Hobfoll, 1998) and by considering the aforementioned research findings, we explore firstly how carrying out work-related tasks in the evening affects well-being at bedtime by focusing on fatigue, recovery and psychological detachment. Secondly, we examine how engaging in

leisure activities or family demands in the evening affect the relationship of supplemental evening work with well-being at bedtime. Previous studies often investigated which leisure activities lower work strain and thus allow individuals to recover and switch off mentally. However, as more and more individuals perform evening work-related tasks which consume additional resources at the expense of recovery opportunities, leisure activities should be organized such in a way as to positively impact well-being and allow for the build-up of new resources. Interestingly, previous studies focused on recovery activities performed after work, neglecting how stressed employees who resume work-related tasks again in the evening can recover beforehand. In other words, we explore how leisure activities performed between the end-of-work and the resumption of work-related tasks in the evening counteract the later negative influence of supplemental evening work on well-being.

To test these relationships, we recruited teachers to participate in our study because teachers represent a specific population often engaging in work-related tasks during the evening. Studies show that teachers belong to a professional group that seems to be particularly concerned by work stress (e.g., Kinnunen et al., 1994; Schaufeli et al., 1994), for example misbehaving pupils, relationships with parents, time pressure or a high degree of work overload affects their well-being (Aldrup et al., 2018; Hakanen et al., 2006; Kokkinos, 2007; Skaalvik & Skaalvik, 2011, 2018). In addition, they often have work-related tasks such as course preparation outside their regular working hours (Yong & Yue, 2007). Sonnentag (2018) points out that employees in high-strain positions are particularly in need of recovery. Reports by the Swiss Federation of Teachers on working hours (Brägger, 2019) and health (Studer & Quarroz, 2017) reflect these findings, namely that the workload among Swiss teachers is so high that additional evening work is a regular occurrence and they are very much in need of recovery from work strain. In sum, teachers represent a particularly vulnerable occupational group characterized by the fact that they deal with work-related tasks, such as preparation or

corrections outside the set school schedules, and are especially in need of recovery. Examining supplemental evening work and leisure activities that are carried out beforehand, and their impact on well-being within this professional category, is justified.

Method

Participants and Procedure

Teachers were recruited in the French-speaking and German-speaking parts of Switzerland. First, the school authorities gave their approval after which the school directors sent a description of the study to the teachers via e-mail. A total of 106 teachers expressed interest in participating. The conditions for participation were that they had contracts for a minimum of 60% workload or higher. The teachers were informed that they would first fill out a baseline questionnaire on their working conditions in order to participate in a diary study during the 10 following working days. During these 10 working days, participants were asked to complete (a) an end-of-work questionnaire (available from 12pm to 7pm) at the official end of their working day, i.e., at the end of their scheduled timetable and (b) a bedtime questionnaire (available from 8pm to 3am the following day). All questionnaires were sent out by email using a survey administration online tool. In gratitude for their regular participation, the participants received personal feedback at the end of the study and the opportunity to participate in a raffle for vouchers worth 50 Swiss Francs.

Of the 106 teachers only 85 were retained in the final sample (19.81% drop-out rate). Some teachers had not completed the baseline or did not meet the participation criteria (i.e., workload at least 60% and they had to occasionally work in the evening). In total, 791 end-of-work and 663 bedtime measurements were collected. The final sample consists of 58 women (68%), the mean age was 42.06 ($SD = 10.34$, range: 24-61 years) and 94% hold a university

degree. Although we recruited teachers in both the French and German-speaking parts of Switzerland, 92% spoke French. On average, the teachers had a workload of 86% ($SD = 12.39$) of full-time employment and a mean tenure of 9.17 years in their schools ($SD = 7.63$). With regard to supplemental evening work, on average participants performed work-related tasks in the evenings on 40.44% of the study days.

Measures

Based on Brislin's (1980) guidelines, a translation-back translation process for the items was carried out by native French and German speakers until a consensus in meaning was found. This enabled the study to be conducted in both languages.

Supplemental Evening Work. In the bedtime survey, participants reported whether they engaged in work-related activities after work and before going to bed. We thus assessed this supplemental evening work using a dichotomous item ("Did you work at home this evening"; $no = 0$; $yes = 1$).

Leisure Activities. With regard to leisure activities engaged in before starting work-related tasks in the evening, we asked whether they had participated in a specific leisure activity or not. In the bedtime survey, participants had to indicate which type of activities they had engaged in during leisure time using dichotomous items ($no = 0$; $yes = 1$). Specifically, they indicated whether they did (a) household and (b) childcare, which we labeled as *family demands*. Household activities may include, for example, laundering and cleaning the home, while childcare refers to activities such as fetching children from kindergarten, taking them to extracurricular lessons or helping them with their homework. Additionally, we assessed whether they carried out (c) low-effort activities such as watching TV or reading, (d) social activities (e.g., meeting and contacting friends) or (e) physical activities (e.g., jogging, yoga or going to the gym).

The following variables were used as daily outcome variables assessing well-being:

Fatigue. We measured fatigue using three items from Cranford et al. (2006). At end-of-work and at bedtime, participants indicated whether they felt “worn out”, “exhausted” and “fatigued” on a 5-point Likert scale ranging from *not at all* (1) to *extremely* (5). Within-person reliability was calculated according to Shrout and Lane (2012) at the end-of-work and at bedtime and was .80, respectively .77.

Psychological Detachment. We measured psychological detachment from work using three items based on the Recovery Experience Questionnaire by Sonnentag and Fritz (2007). At bedtime, participants indicated the extent of their mental switch-off, as for example with the item “I have completely forgotten my work”, on a 5-point Likert scale ranging from *not at all* (1) to *completely* (5). Within-person reliability was calculated according to Shrout and Lane (2012) and was .88.

Recovery. We measured recovery using three items from Sonnentag's study (2003) by adjusting them to the situational well-being at the time of measurement. At end-of-work and bedtime, participants indicated whether they felt “recovered”, “relaxed” and “in a good mood” on a 5-point Likert scale, ranging from *not at all* (1) to *extremely* (5). Within-person reliability was calculated according to Shrout and Lane (2012) at the end-of-work and at bedtime and was .75, respectively .73.

Results

Data Analysis

This study aimed to explore the short-term effects of supplemental evening work and leisure activities on well-being. To investigate day-specific effects within individuals and by taking into account for end-of-work affect centered around the group mean across the ten working days, we modelled the effects of daily supplemental evening work, leisure time

activities and their interaction as random slopes (i.e., supplemental evening work with well-being; leisure activities on supplemental evening work with well-being) and tested the hypotheses one-tailed using the lme4-package (Bates et al., 2018) in R. The null models suggest a strong within-person variance, meaning a substantial variability in the employees' well-being and leisure time activities over the study period of ten working days, namely 68% for evening work, 42% for fatigue, 54% for recovery, 57% for psychological detachment, 85% for household tasks, 39% for childcare tasks, 76% for low-effort activities, 69% for social activities and 79% for sport activities.

Testing of Hypotheses

Table 1 shows the descriptive statistics, reliabilities, and correlations of the measures used in this study. Table 2 depicts the results of multi-level regression analyses. Figure 1 shows the interactions between leisure time activities and supplemental evening work predicting bedtime recovery, fatigue and psychological detachment at within-person level.

Taking into account the well-being at the end-of-work, the results regarding hypothesis 1 show that daily supplemental evening work predicted negatively recovery ($B = -.37, p < .001$; end-of-work recovery: $B = .27, p < .001$) and psychological detachment ($B = -.85, p < .001$), but not for fatigue ($B = .13, p = .062$). End-of-work fatigue predicted bedtime fatigue ($B = .31, p < .001$). Thus, hypothesis 1 is partially supported.

The following hypotheses 2a and 2b focus on family demands carried out before resuming work in the evening. With regard to hypothesis 2a, the results suggest that on days when people carried out household duties, they did not feel less recovered in the evening ($B = -.13, p = .129$), not more fatigued ($B = -.04, p = .610$) nor less detached ($B = .15, p = .234$). Regarding the postulated moderation effect (hypothesis 2a), our results reveal no interaction of household chores with supplemental evening work on the tested facets of well-being (recovery:

$B = .09, p = .517$; fatigue: $B = -.02, p = .876$, psychological detachment: $B = -.18, p = .382$). In other words, teachers' well-being did not differ on days when they had household chores before resuming work-related tasks (recovery: $B = -.31, p < .001$; fatigue: $B = .14, p = .100$; psychological detachment: $B = -.89, p < .001$) compared to days without household chores before resuming evening work-related tasks (recovery: $B = -.41, p = .004$; fatigue: $B = .16, p = .270$; psychological detachment: $B = -.71, p < .001$). In sum, hypothesis 2a is rejected.

Concerning hypothesis 2b, the results show that on days when teachers had childcare duties it did not affect their feeling of recovery ($B = -.00, p = .999$) nor psychological detachment ($B = .24, p = .124$) and they were not more tired in the evening ($B = -.01, p = .905$). As for the postulated moderation effect, we did not find any effect either for recovery ($B = .07, p = .593$), fatigue ($B = .23, p = .122$) or psychological detachment ($B = -.27, p = .215$). In other words, teachers' well-being did not differ on days when they had childcare duties before resuming work-related tasks (recovery: $B = -.29, p = .012$; fatigue: $B = .28, p = .020$; psychological detachment: $B = -1.02, p < .001$), compared to days without childcare duties before resuming work-related tasks in the evening (recovery: $B = -.37, p < .001$; fatigue: $B = .06, p = .562$; psychological detachment: $B = -.75, p < .001$). In sum, the impact of evening work effort on well-being is not affected when childcare duties are fulfilled beforehand. Thus, hypothesis 2b is rejected.

The following hypotheses 2c, 2d and 2e focus on leisure activities engaged in before resuming work in the evening. The analyses related to hypothesis 2c reveal that low-effort tasks partially affect the teachers' well-being in that, on days when they engage in low-effort tasks, they feel less recovered in the evening ($B = -.27, p < .001$) but not less tired ($B = -.02, p = .828$). However, they could detach more psychologically ($B = .27, p = .029$). Regarding the postulated moderation effect, we did not find any moderating effect on a daily basis of low-effort tasks carried out before resuming work in the evening on the investigated facets of well-being

(recovery: $B = .12, p = .350$; fatigue: $B = .04, p = .771$; psychological detachment: $B = -.29, p = .147$). In other words, teachers' well-being did not differ on days when they took on low-effort tasks before resuming work (recovery: $B = -.31, p < .001$; fatigue: $B = .15, p = .089$; psychological detachment: $B = -.93, p < .001$), compared to days without low-effort tasks before resuming work in the evening (recovery: $B = -.43, p < .001$; fatigue: $B = .11, p = .383$; psychological detachment: $B = -.64, p < .001$). Therefore, we conclude that working in the evening does not significantly affect well-being at bedtime if low-effort tasks are performed beforehand. Hypothesis 2c is rejected.

With regard to hypothesis 2d, our results show that engaging in social activities impact well-being. On days when teachers had social contacts, they felt less tired ($B = -.22, p = .013$) and more recovered ($B = .35, p < .001$) but were not likely to psychologically detach more ($B = .05, p = .655$). With regard to the postulated moderation in hypothesis 2d, our results revealed that on days when teachers engaged in social contacts before taking on supplemental evening work, they felt less recovered ($B = -.45, p < .001$) than when they did not engage in social contacts beforehand ($B = -.13, p = .228$). With regard to the other facets of well-being, no moderating effect holds for fatigue ($B = .26, p = .052$) or for psychological detachment at bedtime ($B = -.07, p = .711$), in comparison to days when they socialized before evening work (fatigue: $B = .24, p = .014$, psychological detachment: $B = -.87, p < .001$), compared to days without socializing (fatigue: $B = -.02, p = .841$, psychological detachment: $B = -.80, p < .001$). Thus, hypothesis 2d is partially supported.

Finally, our findings related to hypothesis 2e suggest that on days when teachers engaged in physical activities, they felt more recovered ($B = .20, p = .021$) but not less tired ($B = -.00, p = .961$) and could not detach more from work ($B = -.10, p = .435$). Regarding the postulated daily moderating effect in hypothesis 2e, we found an effect for psychological detachment ($B = -.58, p < .001$). This means that teachers resuming work-related tasks are more

likely to switch-off mentally at bedtime when physical activities have been engaged in prior to evening work ($B = -.40, p = .045$) compared to days without exercise before the resumption of work-related tasks ($B = -.97, p < .001$). With regard to the other facets of well-being, no moderating effect holds either for recovery ($B = -.06, p = .650$) or fatigue ($B = .05, p = .734$) on days where people exercised before evening work (recovery: $B = -.38, p = .003$, fatigue: $B = .18, p = .190$), compared to days without exercise (recovery: $B = -.32, p < .001$, fatigue: $B = .13, p = .138$). Therefore, hypothesis 2e is partially supported.

Discussion

The purpose of the current study was to explore how the resumption of work-related tasks during job-off hours affect our well-being and how prior leisure activities, aimed at promoting recuperation, impact on these effects. Therefore we examined on the one hand three aspects of well-being, namely fatigue, recovery and psychological detachment and, on the other, the moderating role of leisure activities based on Sonnentag's (2001) classification: household and childcare tasks (conceptualized as high-duty family demands) as well as low-effort, social and physical activities (conceptualized as low-duty leisure activities).

According to our results, working in the evening prevents employees from mentally switching off and is negatively related to recovery. These findings are consistent with previous study results, namely that performing work-related tasks leads to less experienced recovery (ten Brummelhuis & Trougakos, 2014) because it draws on already consumed resources from the workday (Sonnentag, 2001) and thus hardly any new resources can be built up. Further, continuous cognitive preoccupation with work-related matters during leisure time hinders psychological detachment from work and does not enable mental distraction at bedtime. This is also supported by previous studies (Mojza et al., 2010; Volman et al., 2013). As no effect on

evening fatigue has been found, this finding correlates with previous findings (e.g., Sonnentag & Natter, 2004). The nonexistent effect on fatigue could stem from the fact that teachers are accustomed to working in the evening and so effects on well-being are less detectable. It should also be noted that a larger sample could have been a decisive factor here, especially because the effect borders on the significance level. In summary, however, performing work-related tasks during the evening poses a risk to well-being.

After that we investigated whether family demands performed during leisure time mitigate the burden of personal effort caused by working in the evening. Here we found no effect of household and childcare demands on the investigated facets of well-being, which matches with existing research findings (Sonnentag & Zijlstra, 2006; ten Brummelhuis & Trougakos, 2014), most likely because the accomplishment of household tasks is commonly coupled with an obligation and thus provides little opportunity for energy build-up after a workday. Similarly, we found no moderating effect of household or childcare demands on well-being, thus confirming previous findings (Rook & Zijlstra, 2006; Sonnentag, 2001; Sonnentag & Natter, 2004; Van Hooff et al., 2011).

With regard to the hypothesized effect of low-effort tasks on well-being, we were partially able to confirm their effect. On the one hand, the missing effect on fatigue is in line with former findings (Rook & Zijlstra, 2006; van Hooff et al., 2011) and may stem from the passivity that characterizes low-effort tasks (Sonnentag, 2001). This possibly reveals an apathetic lethargy coupled with boredom (Iso-Ahola, 1997) preventing the build-up of new resources which might explain the lowering effect on recovery in our study. Regarding psychological detachment, our results align with prior findings (e.g., ten Brummelhuis & Bakker, 2012) showing that low-effort tasks contribute to cognitive switch-off at the end of the day as they allow a mental distraction from work-related demands. With regard to the nonexistent moderation, our results show that prior low-effort tasks do not mitigate the later

burden of supplemental evening work on well-being. We conclude that supplemental evening work has more negative consequences on well-being than low-effort tasks (seen as distracting activities) undertaken prior to evening work. The reason for this is because, firstly, they use up resources but do not contribute to the regeneration of depleted ones. Secondly, low-effort tasks are not always able to alleviate the strain from supplemental evening work, possibly due to feelings of guilt for indulging in idleness or even wasting time rather than taking on duties.

In correlation with previous findings (Sonnentag & Zijlstra, 2006; Van Hooff et al., 2011), social activities were positively related to recovery and negatively to fatigue at bedtime. Not only does socializing enable the fulfillment of basic needs (Ryan & Deci, 2000), it also provides a valuable source of social support that has been shown to be beneficial for well-being (Viswesvaran et al., 1999). In keeping with former research findings showing no relation to psychological detachment (e.g., Mojza et al., 2010; Sonnentag & Bayer, 2005), we agree that the reason for the non-existent effect can lie in subjects discussed with friends or colleagues who might raise topics connected to professional life, thus preventing work-related preoccupations from being dispelled after the workday (Sonnentag & Bayer, 2005). Regarding the postulated moderation, socialization coupled with later supplemental evening work no longer relates to psychological detachment and fatigue. However, contrary to our expectations, the previously still positive effect of recovery drifts into the negative when prior social activities are coupled with later supplemental evening work. In other words, on days when teachers worked in the evening and engaged in social activities beforehand, they felt even less recovered at bedtime. Apart from the fact that while socializing people often discuss work as an important area of life, further personal resources are needed for being attentive to interlocutors and keeping the interaction going, thus depleting additional resources and so working against recovery. Furthermore, in these social interactions people may be tempted to hide their true feelings and thus use skills in surface emotional acting. This not only requires

an additional personal effort which consumes resources but it is also as a compromising behavior for well-being (Hülshager & Schewe, 2011) and specifically relates indirectly to a higher need for recovery (Xanthopoulou & al., 2017). In sum, engaging in social activities after work holds the potential to strengthen our well-being, but offers an inadequate solution to reducing the negative consequences of subsequent evening work efforts.

As previous studies have shown (Sonnentag, 2001; Sonnentag & Zijlstra, 2006; ten Brummelhuis & Trougakos, 2014), physical exercise had a positive relationship to well-being in that it increased the feeling of recovery at bedtime. Therefore, exercising helps to replenish depleted resources, thus returning physiological and psychological processes to a pre-stressor level. With regard to fatigue, our results match previous findings that could not identify a relationship between physical activities and fatigue (e.g., Sonnentag & Bayer, 2005; Sonnentag & Natter, 2004). While exercising, other resources are used than during the workday (Sonnentag & Zijlstra, 2006), and are more likely to result in physical fatigue (Sonnentag & Natter, 2004) and less likely to reduce mental fatigue. Based on the work of Frone and Tidwell (2015), a more precise differentiation between physical, mental, and emotional fatigue could offer insightful conclusions in this instance. With respect to the postulated moderation, engaging in physical activities only alleviated psychological detachment after the resumption of work-related tasks at bedtime. Considering that teaching rather drains mental than physical energy, sports activities allow mental detachment, in particular by influencing cognitive resources thanks to an active distraction from daily work tasks (Yeung, 1996). Even if work-related tasks are performed again at a later time at home, physical exercise hold the power to offer a well-defined break, creating boundaries between the daily work routine in the office or at school and life in the private environment. The renewal of resources through physical exercise is a health-promoting pastime which, however, necessitates self-regulation due to energy already expended after a workday (Sonnentag & Jelden, 2009). The effectiveness of

sports intended as a leisure activity may also depend on the extent of daily work strain (Payne et al., 2002) and on which resources are used (e.g., attention, energy, muscle strength). Physical exercise is helpful in reducing work strain and promotes particularly teachers' psychological detachment from work.

In summary, low-effort, social, or physical activities affect well-being at the end of the day. Socializing or physical activities have a positive influence on the feeling of recovery, in contrast to low-effort tasks. In addition, social activities were related to reduced fatigue. When investigating how supplemental evening work impacts well-being and the role of leisure activities performed prior to evening work, the following findings emerged. Firstly, the effect of supplemental evening work on recovery is moderated by social activities. That is, on days when teachers engaged in social activities before performing supplemental evening work, they felt even less recovered at bedtime compared to days without socializing before evening work. Secondly, we found a moderation effect of physical activities. On days when teachers exercised before their supplemental evening work, they were better able to mentally switch off at bedtime than on days without physical exercise before evening work. Even if an unexpected moderation effect of socializing on recovery occurred, it was shown that sport is an effective means to increase well-being when followed by work-related tasks in the evening.

Limitations and future directions

Our study includes three major limitations. First, in terms of supplemental evening work we only examined whether leisure activities were engaged in. While a number of studies investigated the duration of leisure activities (e.g., Mojza et al., 2010; Rook & Zijlstra, 2006; Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006), it would be interesting to know at what point an activity starts to affect well-being. For example, the question of whether low-effort tasks, due to their passive physiological and psychological nature, require more time than

sports to impact our well-being might be addressed in future studies. Furthermore, hierarchy-specific investigations could provide useful insights into the recovery behavior of people working in the evening, such as whether white-collar workers differ from their supervisors in this respect. As we limited ourselves to activities performed after regular workdays, researching activities carried out after supplemental evening work or activities before the start of the workday, and their influence on well-being during the workday, might be taken into consideration. For teachers in particular, there is a large variance in work schedules which may allow them, for example, to engage first in early leisure activities (e.g., morning yoga session, jogging) to boost resources for the school day, as well as afternoon teaching activities and professional tasks in the evening. Although we did not consider temporal aspects of leisure time activities, we were able to provide evidence on whether a task already completed or not affects well-being. We therefore support the recommendations of Sonnentag et al. (2017) and encourage researchers to investigate more closely questions linked to temporal components related to leisure activities aimed at the recovery of resources, as for example at what time of the day an activity is performed and how it impacts work behavior and well-being.

Second, we did not investigate creative and cultural activities pursued during leisure time, such as painting, pottery, acting, playing an instrument and so on. Based on the tenets of the Self-Determination Theory (Ryan & Deci, 2000) and related to the facets of recovery experiences (Sonnentag & Fritz, 2007), it can be assumed that the pursuit of creative tasks, in which competence and autonomy are experienced, can contribute to self-realization and can develop a motivational potential holding beneficial effects for well-being and thus recovery. These basic needs align with the notion that it is less about the leisure activity itself but more about the recovery experience during an activity, such as mastery, autonomy or relatedness, that affects our well-being (Sonnentag et al., 2017). Former studies confirm the relationship of creative and cultural leisure activities to well-being, namely on physical and mental health

(Acar et al., 2020; Iwasaki et al., 2005; Leckey, 2011). Therefore, to date, the field of creative activities has remained mostly unexplored and should be addressed more thoroughly in recovery research.

Third, we had a limited number of teachers who agreed to participate in our study during the COVID pandemic. The ongoing pandemic measures have a significant influence on daily school life and likewise influences teachers' well-being (Alves et al., 2021). Therefore, our conclusions about the impact of leisure activities on well-being are particularly valid for professionals in the field of education. However, further research with more subjects, as well as other professional groups, should be targeted in the light of optimal stress prevention.

Conclusion

The current study enlarges our understanding on how supplemental evening work affects well-being at bedtime and whether prior leisure activities are able to mitigate the energy-draining effects of evening work later on. With regard to recovery after evening work, there were no effects in the case of family demands, while in the case of prior leisure activities, socializing even had a negative effect on well-being. The fatigue from supplemental evening work could not be alleviated either by prior family demands or leisure activities emphasizing the exhausting effort and energy consumption of supplemental evening work. Concerning psychological detachment at bedtime, only physical exercise managed to mitigate the negative impact of supplemental evening work, thus highlighting the importance of exercising for mental well-being. In conclusion, supplemental evening work remains behavior that, on the whole, has dangerous consequences for our well-being, even though certain previously performed leisure activities seem to assist a build-up of resources in advance.

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Table 1

Means, standard deviations and correlation between the study variables on between and within-level

Variable	<i>M</i>	<i>SD</i> _{L2}	<i>SD</i> _{L1}	ICC	1	2	3	4	5	6	7	8	9	10	11
1. Fatigue (w)	2.08	0.89	0.67	0.42	.80	-.09°	.30	-.10°	-.11	-.02*	-.00***	-.14	.04°	-.05°	-.04°
2. Recovery (w)	2.73	0.87	0.64	0.55	-.54**	.75	-.21	.29	.26	-.07°	-.02*	.09	.01	.04°	.02*
3. Fatigue (b)	2.54	1.02	0.64	0.42	.61**	-.36**	.77	-.41	-.18	.07	-.09°	-.11*	-.03*	-.25	.00***
4. Recovery (b)	2.93	0.84	0.62	0.54	-.33**	.54**	-.48**	.73	.44	-.24	-.09	.02*	-.13	.17	.09
5. Detachment (b)	2.97	1.33	0.99	0.57	-.24**	.27**	-.31**	.45**	.88	-.31	.00*	.02°	.04°	.05	.08
6. Evening Work (b)	0.40	0.49	0.41	0.68	.05	-.07	.12**	-.24**	-.41**	-	-	-	-	-	-
7. Housework(b)	0.74	0.44	0.41	0.85	.02	-.03	-.05	-.04	-.01	.13**	-	-	-	-	-
8. Childcare (b)	0.31	0.46	0.29	0.39	-.02	.13**	.04	.06	.09*	.02	.27**	-	-	-	-
9. Low-effort (b)	0.69	0.46	0.40	0.76	.09*	-.10*	.02	-.12**	.13**	-.04	.19**	.04	-	-	-
10. Social activities (b)	0.61	0.49	0.40	0.69	-.08	.03	-.09*	.18**	.07	-.10*	-.10*	-.17**	-.09*	-	-
11. Physical activities (b)	0.25	0.43	0.38	0.79	-.05	.04	-.03	.08*	.01	-.01	.04	-.07	-.00	.03	-

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. The following abbreviations refer to the time of measurement: (w) = end-of-work, (b) = bedtime. Between-person correlations are below the diagonal, within-person correlations are cited above. We did not report the within-correlations between the variables 6 to 11, as they are categorical variables. *SD*_{L1} = within-person standard deviation, *SD*_{L2} = between-person standard deviation. The between-days internal consistencies of the scales are mentioned into the diagonal. Level 1: *N* = 577-696; level 2: *N* = 85. ICC refers to the total variance between-days.
 ° indicates $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2

Multilevel Prediction of supplemental daily evening work on affective and cognitive well-being at bedtime moderated by prior leisure activities

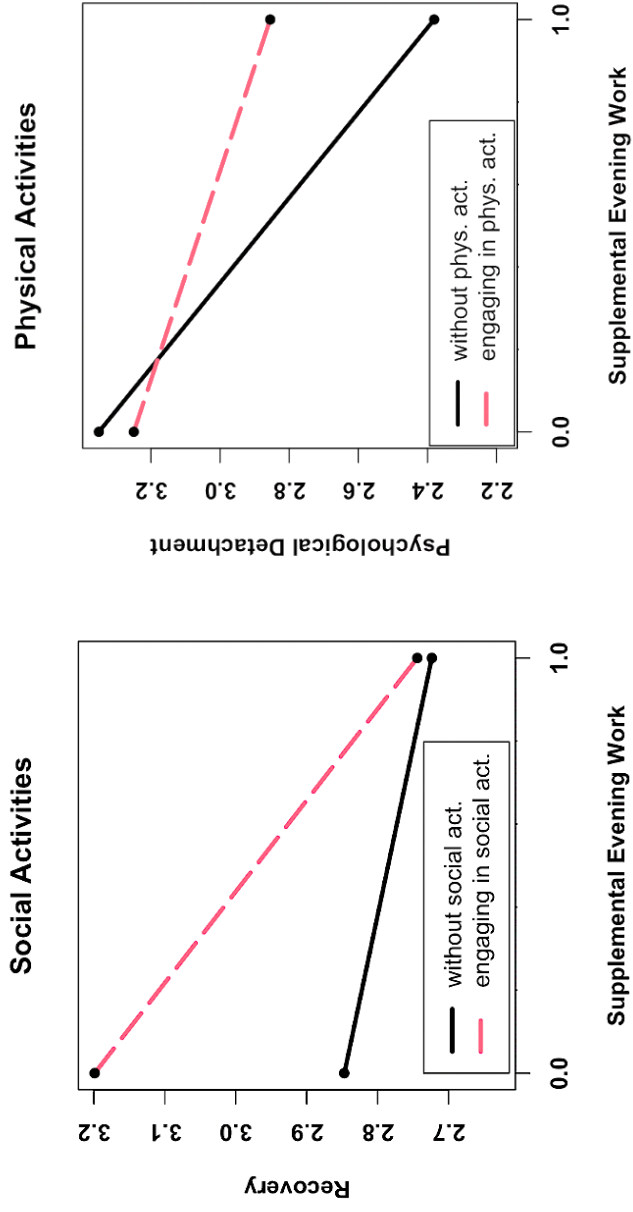
		Recovery		Fatigue		Psychological Detachment	
		B	SE B	B	SE B	B	SE B
<u>Predictor & control variables</u>							
End-of-work affect		0.27***	0.04	0.31***	0.04	-	-
Suppl. evening work		-0.34***	0.08	0.14	0.08	-0.85***	0.12
<u>Leisure Activities</u> (before suppl. evening work)							
Family Demands	Household	-0.13	0.08	-0.04	0.09	0.15	0.12
	Household X work	0.09	0.15	-0.02	0.15	0.18	0.21
	Childcare	-0.00	0.10	-0.01	0.11	0.24	0.16
	Childcare X work	0.70	0.14	0.23	0.15	-0.27	0.22
	Low-effort	-0.27***	0.08	-0.02	0.09	0.27*	0.12
	Low-effort X work	0.12	0.13	0.04	0.14	-0.29	0.20
Leisure Activities	Social activities	0.35***	0.08	-0.22*	0.09	0.05	0.13
	Social activities X work	-0.33**	0.12	0.26	0.13	-0.07	0.19
	Physical activities	0.20*	0.08	-0.00	0.09	-0.10	0.13
	Physical activities X work	-0.06	0.13	-0.05	0.14	0.58**	0.21

Note: Suppl. evening work = supplemental evening work. The postulated hypotheses were tested one-tailed. Significant effects are marked in bold.

* $p < .05$, ** $p < .01$, *** $p < .001$ (one-tailed).

Figure 1

Interactions between leisure activities and evening work effort predicting bedtime recovery, fatigue and psychological detachment at within-person level



3. Work-related Stress: A Crossover Perspective

From the first two studies we learned that work-related stressors compromise our well-being at the end of the day. Unfinished tasks and working in the evening negatively affect feelings of fatigue, tension and recovery as well as the ability to switch-off mentally. When investigating suitable coping strategies, we concluded that only noticeable *goal progress during* supplemental evening work (study 1) as well as *physical leisure activities prior to* supplemental evening work (study 2) reduce strain and thus have a positive effect on well-being at the end of the day. Following the Spillover-Crossover model (Bakker & Demerouti, 2013) mentioned at the beginning of this dissertation, these two studies showed intraindividual effects of stressors related to the work environment on well-being at bedtime, which encroaches on the private sphere. However, as the Spillover-Crossover model additionally points out that this intraindividual strain can be transferred to other close people (and hence does not remain exclusively with the strained person), stress becomes a social experience. For this reason, the crossover process will be examined more closely at this point to better understand the effects of work-related stressors.

What does the Spillover-Crossover model imply, in addition to the already discussed intraindividual process of strain transmission? How does one's own stress affect those in close proximity and how can they provide support in coping with stress? More precisely, this support behavior will shed light on a third study by examining the influence of a single person's work-related stressors on support behaviors at a couple level. For a better understanding, a detailed description of the third study follows after a short theoretical outline of the crossover processes in couples.

The Spillover-Crossover model (Bakker & Demerouti, 2013) is not limited to intraindividual transmission - as mentioned at the beginning of this paper - but also integrates the crossover process which is understood as an interpersonal process of strain transmission, due

to stressors, from one person to another in the same environment, for example to the intimate partner (Bolger et al., 1989). Stated differently, a crossover is "a dyadic interindividual transmission of psychological states and experiences" (Hobfoll et al., 2018, p. 108) which may be negative or positive in nature (Westman, 2001).

Explanatory approaches detail why a transfer of one person's strain to another occurs, for example with the intimate partner (which is addressed in the third manuscript of this dissertation). In direct crossover, emotional closeness to the partner and the resulting empathy paves the way for a transfer of affective states and experienced strain (Westman, 2001). Indirect crossover is more about the perception of the partner's behavior (e.g., less positive interaction or withdrawal behavior) which can be interpreted as a sign of strain, and therefore one partner adapts their own behavior to that of the other (Bakker & Demerouti, 2013; Li et al., 2021).

Previous research findings suggest, for example, a crossover of one person's strain on psychophysiological outcomes in others, such as burnout and exhaustion (Bakker et al., 2008; Bakker & Schaufeli, 2000; Demerouti et al., 2005), work-family conflicts (Westman & Etzion, 2005), health complaints (Gorgievski-Duijvesteijn et al., 2000; Shimazu et al., 2009), anxiety (Westman et al., 2004) or a partner's well-being (Bakker et al., 2009). Combining both processes, spillover occurs first, followed by crossover. In summary, work demands are perceived as stressful and the stressed employees take the strain from the work context into their private environment (spillover), where their behavior and well-being influence the interactions with others, such as those with their intimate partners (crossover).

3.1 Dyadic Coping: Support Pattern Among Intimate Couples

As stated at the beginning of this section on crossover processes, support from one's own social environment will be discussed in more detail in the coming lines as decades of research consider it an effective means of coping with stress (e.g., Viswesvaran et al, 1999).

Therefore, what is there left to research when there is already so much study on this? Interestingly, and as explained in the coming sections, research has focused more on receipt and less on provision of social support (Devoldre et al., 2010; Verhofstadt et al., 2010). That is to say, more research has been done on the impact of receiving support in coping with stress on well-being whilst so far disregarding what factors influence the provision of support. To respond to this latter research question, we will first elaborate on the concept of social support by applying it specifically to working couples, then contribute to the existing body of research on social support by examining the influence of work stressors on the provision of social support among dual-earner couples (study 3). Thanks to this study on the crossover of stress between intimate partners, and complementary to the first two studies related to spillovers processes in individuals, we will be able to expand our understanding of coping with work stress brought home (which is the topic and title of this dissertation).

For decades, the concept of social support has occupied an important place and studies have highlighted the largely positive effect of social support in the relationship of stressors on strain (for a review, see Viswesvaran et al., 1999). Even though the multifaceted nature of social support is difficult to narrow down, the concept of social support has been intensively researched and various styles have been identified, such as the most commonly framed forms of emotional support (e.g., showing understanding and empathy) as well as instrumental support (e.g., taking charge of household chores).

Social support may stem from various sources, be it from individuals in the professional context, such as supervisors or colleagues, and from the private context, such as friends, family members or an intimate partner (Hammer et al., 2016). Even if individuals often start by dealing with stressors on their own, the partner mostly represents the first social anchor point for dealing together with stress (Bodenmann, 2005), and a partner's support is considered particularly worthwhile (Coyne & DeLongis, 1986). With the concept of *dyadic coping* based

on his Systemic Transactional Model (STM), Bodenmann (1995) takes this particular form of social support in intimate couples into account. It can be described as a "process in which the stress signals of one partner and the coping reactions of the other partner to these signals [...] are taken into consideration" (Bodenmann, 1997, p. 139). The goal of mutual support is to lower the stress sensation on both the individual and couple level through empathic processes (Falconier et al., 2015; Morelli et al., 2015) and thus maintain the homeostasis in the relationship and promote relationship satisfaction as well as the partner's well-being (Bodenmann, 2005).

Interested in the well-being of intimate partners, Bodenmann (1995) extends Lazarus and Folkman's stress theory (1984) into the Systemic Transactional Model (STM) by shifting the focus away from an individualistic view to a systemic embeddedness of individuals in a social setting interacting strongly with the actors within it (e.g., as applied to intimate couples). Thus, he establishes the concept of dyadic coping and specifies the interdependence of well-being of both intimate partners. According to his theory, partner A communicates feelings of stress through verbal and nonverbal signs, which partner B might perceive, interpret and react to these perceived signs. Furthermore, Bodenmann (2005) explains that due to emotional closeness to the partner, partner B can empathize with A's internal states and may show supportive behavior, or may not feel concerned by A's emotional states. To refer back to the Spillover-Crossover model (Bakker & Demerouti, 2013) presented earlier, the stress that person A brings from one environment into the other shapes their behavior toward partner B. Partner B, in turn, empathizes with the internal states through emphatic processes, which represents a crossover of strain from person A to person B. Finally, the intimate partner strives to assist the stressed one in coping once they discern the inability of the other to deal with demands (Bodenmann, 1997, 2000). Thus, the awareness of the other's strain triggers supportive behaviors.

Bodenmann's (1995) concept of dyadic coping - mutual coping with stress between intimate partners - is divided into positive dyadic coping (e.g., emotional and delegative support) and negative dyadic coping (e.g., hostile, ambivalent or superficial support). The subdivision of positive dyadic coping into *emotional* and *delegative* support overlaps largely with the better-known terms in the occupational stress literature of *emotional* and *instrumental* support (Cohen & Wills, 1985). By emotional support, a regulation of emotions is achieved through empathic listening and understanding, while in instrumental support practical actions such as taking over household tasks are intended (Simpson et al., 2007). Furthermore, the STM specifies that experienced stress is often not clearly communicated, meaning that the verbal or nonverbal signals on which support is based are subject to misinterpretation, which is why dysfunctional support occurs. This negative support, which can be attributed, for example, to a lack of personal resources or a lack of interest in the other person (Bodenmann, 2000; Verhofstadt et al., 2011), manifests itself in unmotivated support, hostile behavior (e.g., criticizing the partner's manner of coping), ambivalent support or withdrawal behavior.

3.2 Study 3: A Dyadic Approach on the Provision of Social Support

Based on the aforementioned theory on social support processes among intimate couples, we now explore the question of how couples who experience work stress support each other. The following sections briefly summarize the train of thought on which this third study is based.

To support the stressed partner, sufficient personal resources (e.g., attention, energy, time) must be available, which is a particular challenge for dual-earners couples given that they must both cope with professional and private demands (Story & Repetti, 2006). Building on the Conservation of Resources theory (Hobfoll, 1998) and the Work-Home Resources Model (ten Brummelhuis & Bakker, 2012a), both serve as a theoretical framework to specify why

one's support behavior depends on personal resources. According to this model, work stressors (e.g., time pressure) deplete employees' personal resources (e.g., self-esteem, energy), which in turn shapes their behavior at home and makes it difficult to fulfill their private role (Rothbard, 2001), for example being available for their partner's needs. In addition, the concept of psychological availability (Danner-Vlaardingerbroek et al., 2012) propose that one's own mental availability for the partner's needs depends on personal resources. In sum, stressed employees are less available for their partner's needs as personal resources are depleted by work demands.

Regarding how work stressors affect one's support behavior, research findings suggest that work demands trigger more withdrawal or criticism behavior towards the partner (Bodenmann et al., 2004; Schulz et al., 2004) and are related to less emotional support being provided to the partner (ten Brummelhuis & Greenhaus, 2018). From the partner perspective, studies confirm that more emotional support was provided to stressed employees by intimate partners (Hilpert et al., 2018; Iida et al., 2008; Repetti, 1989).

Further, the question emerges as to whether men and women differ in supportive provision. Gender stereotypes shape the social image of men and women (Eagly, 2009) such as women being more emotional and socially oriented (Eagly et al., 2019). Regarding support behaviors, the marital support gap hypothesis illustrates that women provide more support than men (Cutrona, 1996) and women describe support from their male partner as less helpful (Belle, 1982). In addition, it is assumed that women provide more emotional support to their partners while men provide more instrumental support (Verhofstadt et al., 2007). Findings (e.g., Neff & Karney, 2005; Trobst et al., 1994) show that women are more supportive of their male stressed partners, while Falconier and Kuhn (2019) found that men are more negatively supportive of their female stressed partners. Furthermore, ten Brummelhuis and Greenhaus (2018) suggest that work demands were only negatively related to support provision among

men but not among women. It is also shown that men adopt more negative support behaviors, such as withdrawal on stressful days, compared to women (Schulz et al., 2004). Considering these aspects, it can now be assumed that women, despite their own stress, provide more positive support whereas men provide more negative support to their partners.

In summary, on the one hand dual-earner couples struggle with the demands of both professional and private life and on the other, they strive to support their partners so as to strengthen the each other's well-being and to ensure relationship satisfaction. However, work stressors pose a threat to the harmony of the relationship in that personal resources are consumed. Partners are less able to engage with each other's needs, thus dysfunctional coping attitudes are increasingly displayed. Stressed employees benefit from positive support from their partners, which points to social support within the relationship as a valuable resource. Also, based on the aforementioned findings, it can be concluded that despite their own work stress women are more likely to give positive whereas men are more likely to give negative support to their intimate partner.

In the third study presented in this dissertation, we study dual-earner couples and explore how employees' work stressors affect the provision of support to the intimate partner because this provision (in comparison to the receipt of social support) remains an area of interest poorly investigated thus far (Verhofstadt et al., 2010). More specifically, we focus on two distinct work stressors, namely time pressure and effort-reward imbalance, as both are among the most frequently mentioned among the Swiss working population (Grebner et al., 2010), where our study took place. Finally, we aim to shed light on the gendered facet of social support by investigating whether men and women differ in their behavior of support provision.

Study 3

On work-related stressors and provided social support

At the time of submission of the dissertation, this manuscript is under review in a scientific journal.

**Work Stressors and Dyadic Coping: An Actor-Partner Interdependence Model
of Emotional, Instrumental, and Dysfunctional Support Among Dual-Earner Couples**

Cyril Chariatte and Laurenz L. Meier

University of Neuchâtel

Author Note

Cyril Chariatte, Department of Work and Organizational Psychology, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland.

Laurenz L. Meier, Department of Work and Organizational Psychology, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland.

An earlier version of this paper has been presented at the 13th Conference of the European Academy of Organizational Health Psychology in Lisbon (Portugal) in 2018.

Correspondence regarding this article should be addressed to Laurenz L. Meier, University of Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland. E-mail: laurenz.meier@unine.ch.

Abstract

In today's working world, many employees are members of dual-earner couples and face the challenge of simultaneously dealing with their own work stress and supporting their partner. The beneficial effect of social support has been widely studied, but most research focuses more on the consequences of receiving support and less on antecedents of providing support in general and providing support to one's partner in particular. To extend our understanding of the relationship between work stress and providing social support at home, we conducted a study with 147 dual-earner couples. Based on the work of Bodenmann (1997), we differentiated between emotional (e.g., signaling empathy), instrumental (e.g., offering practical help) and dysfunctional (e.g., hostile and superficial) social support. We assumed that individuals facing high work stressors (time pressure, lack of reciprocity) (a) provide less positive and more negative support and (b) receive more support from their partner. Based on previous research indicating that women tend to provide more social support than men, we also examined gender differences. Results of the actor-partner interdependence model indicated that both men and women facing high work stressors tend to provide more negative support towards their partner (but not less positive support); at the same time, their partner seems to provide more positive behavior to support them. No gender differences emerged.

Keywords: work stress, social support provision, dyadic coping, dual-earner couples, actor-partner interdependence model (APIM)

Work Stressors and Dyadic Coping: An Actor-Partner Interdependence Model of Emotional, Instrumental and Dysfunctional Support Among Dual-Earner Couples

A growing number of dual earners have become the hallmark of today's working world. While endorsing different roles in their private and working life (Geurts & Demerouti, 2003), they have to deal with daily stress in both domains. Specifically, daily hassles from work impact their private life, as one partner brings work-related stress into the family, where it influences interactions with the partner (Bakker & Demerouti, 2013). For example, work stress may trigger aggressive behavior (Lim et al., 2018) and reduce the willingness to express supportive affection towards the partner (Neff & Karney, 2009). Minimizing such burdens poses a challenge for dual earners, particularly as both have to deal not only with their own stress but also with that of their partner (Revenson et al., 2005). That is why it is important to understand how work stress impacts on coping behaviors among dual-earner couples (ten Brummelhuis et al., 2010).

In the present paper, we focus on social support as a dyadic coping behavior because social support has been established as a key concept in stress research (Halbesleben, 2006; Viswesvaran et al., 1999), it reduces the burden of work stress (Westman, 2006), and contributes to the harmonious functioning of intimate relationships (Bradbury & Karney, 2004). Although social support as a coping strategy to deal with work stress has been widely studied in the past, previous research is mostly focused on the receipt but not on the provision of social support (Verhofstadt et al., 2010). Therefore, we broaden the current state of knowledge about coping processes among working couples by examining the antecedents of providing support.

By adopting a couple-oriented approach to understand the interface of work and private domains, we enlarge the body of research on social support in three ways. First, by examining

how work stressors affect behavioral outcomes in the private domain, we answer various scholars' call for more research on crossover effects in general (Parasuraman & Greenhaus, 2002; Park & Fritz, 2015) and the effect of work stressors on supportive interactions among couples in particular (Falconier & Kuhn, 2019). Drawing on the Systemic Transactional Model and the concept of dyadic coping (Bodenmann et al., 2016), we contribute by examining how working partners' work stressors shape their private interactions. Examining these crossover effects furthers understanding of how dual-earner partners support each other (Story & Repetti, 2006).

Second, we contribute to the current literature on social support by examining the antecedents of social support provision. Although several scholars (e.g., Morelli et al., 2015; Verhofstadt et al., 2010) encouraged further investigations of antecedents of providing social support, studies on this remain scarce. Initial findings suggest that whether one gets support depends both on individual (e.g., depressive symptoms; Coyne & Benazon, 2001) and situational (e.g., economic pressure; Johnson et al., 2016) characteristics. Understanding how couples adapt to each other's needs might be useful to practitioners in designing interventions (Rafaeli & Gleason, 2009) as support dynamics play a central role in the harmonious functioning of a relationship (Bradbury & Karney, 2004). Therefore, we address this gap by focusing on both members of a dyad and by showing how one's own work stressors impact the support provided towards the partner.

Third, we broaden our understanding of gendered patterns in social support providing. Women have long been considered as those who provide better and more support (Eagly, 2009). It is noteworthy, however, that some studies found no gender difference (Leslie et al., 2016; Neff & Karney, 2005). Given these mixed findings, it seems legitimate to incorporate the role of gender in the relationship between work stress and social support, thus enlarging the

existing body of research. Using the actor-partner-interdependence methodology (Cook & Kenny, 2005), we test if and how men and women within a couple differ in providing support.

Work Stress and Social Support Among Couples: A Dyadic Approach

The intimate partner is the most common source of support (Dakof & Taylor, 1990) and his/her support is considered to be particularly important (Coyne & DeLongis, 1986). To take this particular case of support from an intimate partner into account, Bodenmann (1995) enlarged the body of literature on social support by introducing the concept of dyadic coping based on the Systemic Transactional Model (STM). Dyadic coping refers to a “process in which the stress signals of one partner and the coping reactions of the other partner to these signals [...] are taken into consideration” to provide support among intimate partners (Bodenmann, 1997, pp. 139). According to the STM, partners perceive each other's stress and aim to conjointly reduce the burden by engaging in supportive behaviors (Bodenmann et al., 2016). When one partner perceives the other to be suffering from stress, they give support – assuming their own resources to assist are sufficient (Bodenmann, 2000; Goubert et al., 2005).

Drawing on the STM, different forms of dyadic coping can be distinguished, including emotion-focused and delegative dyadic coping (Bodenmann, 2008), which are more broadly known as emotional and instrumental support in the occupational stress literature (Cohen & Wills, 1985). Emotional support refers to the regulation of emotions through active listening and empathic understanding by the partner, whereas instrumental support refers to problem-focused actions such as taking over household or childcare duties (Simpson et al., 2007).

While these positive forms of coping are intended to assist the partner in dealing with the stressor and restore harmony in the relationship, the STM highlights that couples also show so-called negative support, like providing ambivalent and unmotivated support (e.g., feeling forced to assist the other in coping), showing hostile behavior (e.g., criticizing the partner in

coping or blaming) or withdrawal. Such behavior may result from a lack of personal resources such as energy and empathy (Verhofstadt et al., 2011), an ambiguous interpretation of the situation and the partner's needs (Cutrona et al., 1990), or a reduced interest in the other (Bodenmann, 2000). In line with this, research confirms that stressed partners lacking resources tend to show such unsupportive behaviors (Lim et al., 2018; Schulz et al., 2004; Shimazu et al., 2009). Therefore, we use the term negative coping for such non-stress reducing coping strategies in this paper.

Providing Support: A Partner Perspective

Empathizing with the partner has been proven to act as an antecedent for providing social support (Devoldre et al., 2010). Assuming that their own resources are sufficient, individuals support the stressed partner when they recognize their partner's inability to deal with daily hassles (Bodenmann, 2000). As a partner-orientated form of the Spillover-Crossover model, the STM posits that support is provided to a partner to assist in coping with stress (Bodenmann, 1997). Thus, according to the STM, being aware of the other's stress leads to supportive behavior, such as providing emotional and instrumental support.

A limited number of studies have investigated antecedents of support provision in dual-earner couples struggling with work stress. These studies show that increased work stressors are related to more emotional support provided by intimate partners (Hilpert et al., 2018; Iida et al., 2008; Repetti, 1989). Taken together, we propose the following hypothesis:

Hypothesis 1: Employees provide more positive (i.e., emotional and instrumental) support to their partners if the partner experiences high levels compared to low levels of work stressors (partner effect).

Providing Support: An Actor Perspective

As explained by the spillover process (e.g., Bakker & Demerouti, 2013), work-related demands may affect interactions with the intimate partner. To support the partner effectively, personal resources (e.g., attention, energy, time) must be available. As dual-earners must cope with both work and private demands (Story & Repetti, 2006), providing support poses a particular challenge for these individuals. According to Hobfoll (2002) stress is due to a (threatened) loss of personal and social resources, which is why individuals strive to conserve, protect, and gain new resources. Although providing support helps the partner to build up new resources, the act of providing support consumes energy and other personal resources and therefore results in strain (Lanaj et al., 2016).

The Work-Home Resource Model by ten Brummelhuis and Bakker (2012), expanding COR theory (Hobfoll, 2002), serves as a conceptual framework to explain how one's support behavior depends on personal resources that might be threatened by work demands. According to the W-HR Model, work demands (e.g., time pressure) deplete personal resources (e.g., self-esteem, energy), which in turn affect behavior at home (e.g., support for the partner). Some of the personal resources are transient (e.g., attention, mood, energy) and once depleted, they fail to inhibit dysfunctional behavior such as incivility and conflicts at home.

Following this line of reasoning, if employees' resources are depleted due to high work stressors, they have difficulties in fulfilling their private role (Rothbard, 2001), such as being available and attentive to their partner's needs. The concept of psychological availability, defined as "one's ability and motivation to direct psychological resources at the partner" (see Danner-Vlaardingerbroek et al., 2012, pp.3) focuses on one's ability to be mentally present for one's partner's needs. Individuals struggling with high work stressors are psychologically less available and lack the strength and motivation to get involved with their partner.

These patterns of reduced availability and support depending on personal resources are illustrated by studies showing, for example, that the instrumental or emotional support one gives depends on the emotional engagement of the provider with others (Devoldre et al., 2010; Trobst et al., 1994; Verhofstadt et al., 2008). In other terms, personal resources are required to be attentive and to provide support. If one lacks the personal resources to support the other, he or she likely shows dysfunctional coping behavior, like withdrawing or criticizing the partner in his/her coping strategy (Bodenmann et al., 2004; Schulz et al., 2004). In line with this, high work demands have been linked to a reduced provision of emotional support to intimate partners (ten Brummelhuis & Greenhaus, 2018). Therefore, based on the theoretical rationale and findings from empirical studies, we propose the following hypothesis:

Hypothesis 2: Employees provide (a) less positive (i.e., instrumental and emotional) and (b) more negative support to the partner if the employees experience high levels compared to low levels of work stressors (actor effect).

Gender Differences in Providing Social Support

Based on the social gender image (Eagly, 2009; Leslie et al., 2016), role models and support skills are attributed to gender. While men are credited with leadership qualities, being agentic and rational, women are often seen as communal, emotional, socially oriented, and interested in the well-being of others (Eagly, 2009; Eagly et al., 2019). Commonly known as the *marital support gap hypothesis*, women on the one hand are described as giving more support (Cutrona, 1996) than men, and on the other hand women describe the support provided by their husbands as less useful (Belle, 1982). Furthermore, it is assumed that women tend to provide more emotional while men provide more instrumental support (Verhofstadt et al., 2007). This deeply-rooted view still shapes the expectations of support mainly provided by women (Eagly, 2009). Because women tend to be more receptive to others' needs (Jensen et

al., 2013), it is expected that women interpret others' emotional states and thoughts more accurately (Hall & Schmid Mast, 2008) and that they are more likely to help others (Taylor et al., 2000). Finally, in line with Pleck's role theory (1977), women might ascribe more importance to the family domain compared to men and put more effort in avoiding work demands that affect family life, by providing more support to their partners despite their own work stress. Even though traditional role models of men's agentic traits and women's sense for communality are being rather repressed and thus leave room for equality at work, in the private sphere, traditional behaviors are still noticeable and women are likely to be more prosocial and supportive than men (Leslie et al., 2016).

Regarding the partner effect (i.e., individual A's work stressors are related to B's supportive behavior), some studies on gender differences suggest that women give more support to their stressed partner (e.g., Neff & Karney, 2005; Trobst et al., 1994). In their review, Falconier and Kuhn (2019) conclude that women tend to provide more positive support while men give rather negative support to an intimate partner. According to ten Brummelhuis and Greenhaus (2018), in the context of dual-earner couples, women receive less support from their male partners, while men report no difference from their working female partners. In sum, women should be more able to detect stress signs in male partners and provide them more support as they are more sensitive to others' needs, especially when the intimate partner is stressed.

Regarding the actor effect (i.e., individual A's work stressors are related to his/her supportive behavior), ten Brummelhuis and Greenhaus (2018) found that one's work demands were only negatively related to support provision among men but not women. Similarly, Schulz et al. (2004) found that men show more withdrawal behavior than women on stressful working days. By comparing stressed and unstressed couples, Verhofstadt et al. (2013) showed that stressed men tend to provide more negative support and less positive support. Another study

of couples by Verhofstadt et al. (2007) shows a similar gendered pattern, namely that men support their partners less positively and more negatively than women did.

In sum, previous findings suggest that women give more positive social support to their stressed partners than men (partner effect) and that work stressors tend to more negatively impact men's behavior at home (actor effect), we therefore posit the following moderator hypotheses:

Hypothesis 3a: The partner effects are stronger for women, meaning that women support their stressed partner more positively and less negatively than men.

Hypothesis 3b: The actor effects are stronger for men, meaning that stressed men support their partner less positively and more negatively than women.

The Present Research

Building on the STM (Bodenmann, 1995), the Spillover-Crossover model (Bakker & Demerouti, 2013), and the WH-R Model (ten Brummelhuis & Bakker, 2012), we investigated the influence of work stressors on dyadic coping provided to the partner among dual-earner couples, focusing on emotional, instrumental, and negative support. More specifically, we examined the extent to which individuals support their stressed partner (partner effect) and the extent to which stressed individuals provide support (actor effect). We also explored whether these relationships between work stressors and coping are characterized by gender differences. In the present research, we focused on two different types of work stressors, namely time pressure as a task-related stressor and lack of reciprocity as a social stressor. Time pressure results from an imbalance between available and required time to perform a task (Rastegary & Landy, 1993) and represents one of the most prevalent and well-being endangering stressors in modern working life (Demerouti et al., 2010), affecting also family life and interactions with intimate partners (e.g., Haun et al., 2017). A lack of reciprocity conceived as a work-related

stressor refers to a sense of inequity in the distribution between effort and reward (Siegrist, 2016). Previous research on lack of reciprocity and related concepts showed that it affects employees' well-being and relationships in private life (Bakker et al., 2012). Examining two different types of work stressors helps establish the generalizability of the proposed model, which is shown in Figure 1.

Method

Participants and Procedure

The sample consisted of 147 heterosexual Swiss dual-earner couples who were recruited by master's degree students. Individuals were eligible to participate if both partners worked at least 24 hours per week (60% of a full-time employment). Participants worked in diverse occupational fields and at different hierarchical levels. A questionnaire was sent via e-mail to the participating employees. The mean age of these participants was 36 years for men ($SD = 11.67$) and 34 years for women ($SD = 11.84$). Seven percent of the participants completed only the mandatory years of schooling, 29% completed secondary education, 26% had a bachelor's degree, and 37% had a master's or doctoral degree. On average, men worked 41.62 hours per week ($SD = 7.30$), women 36.56 hours ($SD = 9.92$). The average relationship duration was 9.69 years ($SD = 10.04$).

Measures

The study was conducted in French. For lack of reciprocity, no French version of the survey was available; therefore, a translation-back translation procedure (Brislin 1980) was followed.

Time Pressure. Time pressure was assessed with four items from Semmer et al. (1995). A sample item was “How often are you forced to adopt an accelerated pace of work?”. Response format ranged from 1 (*very seldom / never*) to 5 (*very often / always*).

Lack of Reciprocity. Lack of reciprocity was assessed with six items from Van Yperen (1996). A sample item was “In my job, I invest more than I receive in return”. Response format ranged from 1 (*totally disagree*) to 5 (*totally agree*).

Social Support. Social support towards the partner was assessed with the Dyadic Coping Inventory developed by Bodenmann (2008). To account for behaviors that help couples handle stressful situations, we used two scales for positive coping behavior (emotional coping, five items; instrumental coping, two items) and one scale for dysfunctional coping behavior (hereafter referred to as negative coping, four items). A sample item for emotional support was “*My partner shows empathy and understanding to me.*”. A sample item for instrumental coping was “*I help him(her) when he(she) has too much to do, in order to unload him(her).*” A sample item for negative support was “*I blame him(her) for not being able to react well enough to stress.*”. Response format for all scales ranged from 1 (*very rarely*) to 5 (*very often*).

Analytical Strategy

We investigated the data using actor-partner-interdependence methodology (APIM; Cook & Kenny, 2005) to account for mutual influence, given the nonindependence of dyadic data. The interdependence of instrumental, emotional, and negative support were taken into account and examined simultaneously. However, to reduce complexity, separate models have been computed for the two work stressors (i.e., time pressure and lack of reciprocity). We analyzed our data with the lavaan package (Rosseel, 2012) of the open-source software R, using maximum likelihood estimation with robust standard errors. Model fit was assessed by the comparative fit index (CFI), the Tucker–Lewis index (TLI), and the root mean square error of

approximation (RMSEA), based on recommendations by Hu and Bentler (1999) and MacCallum and Austin (2000). Good fit is indicated by values greater than or equal to .95 for CFI and TLI and less than or equal to .06 for RMSEA (Hu & Bentler, 1999). We used one-tailed tests for our directional hypotheses.

Results

Descriptive Statistics

Table 1 shows the descriptive statistics and correlations of the measures. Table 2 describes the model fits. Table 3 shows the results of the actor-partner interdependence models.

Hypotheses Testing

We used an APIM to test whether employees experiencing high work stressors receive more positive support from their partner (hypothesis 1; partner effect) and whether they provide less positive and more negative support to their partner (actor effect; hypothesis 2). To examine whether these effects are moderated by gender (hypothesis 3), we compared three different models: Model 1, in which all are freely estimated (unconstrained model), Model 2, in which the actor effects were constrained to be equal for men and women (actor constrained model), and Model 3, in which the actor and the partner effects were constrained to be equal for men and women (fully constrained model).

Model comparisons showed that Model 2 did not fit our data significantly worse than Model 1 (time pressure, $\Delta\chi^2 = 2.33$, $\Delta df = 3$, $p = .47$; lack of reciprocity, $\Delta\chi^2 = 0.57$, $\Delta df = 3$, $p = .91$), and that Model 3 did not fit significantly worse than Model 2 (time pressure, $\Delta\chi^2 = 2.26$, $\Delta df = 3$, $p = .48$; lack of reciprocity, $\Delta\chi^2 = 1.45$, $\Delta df = 3$, $p = .69$). This finding indicates

that neither the partner nor the actor effect is moderated by gender, hypothesis 3 is therefore rejected, and the fully constrained Model 3 can be used to test our hypotheses 1 and 2.

Hypothesis 1 addresses partner effects and claims that employees experiencing high work stressors receive more positive support from their partner. In line with this assumption, lack of reciprocity was positively related to emotional ($\beta = .06, p = .02$) and instrumental support ($\beta = .09, p = .01$) provided by the partner. Similarly, time pressure was positively related to emotional ($\beta = .08, p = .03$) and instrumental support ($\beta = .15, p = .01$).

Hypotheses 2 relates to actor effects and states that employees who experience high work stressors provide less positive but more negative support to their partner. In line with this assumption, lack of reciprocity ($\beta = .07, p = .01$) and time pressure ($\beta = .07, p = .04$) were positively related to negative support. In contrast to our assumption, however, both stressors were unrelated to the two types of positive support, namely emotional support (time pressure: $\beta = -.05, p = .18$; lack of reciprocity: $\beta = -.01, p = .33$) and instrumental support (time pressure: $\beta = -.03, p = .30$; lack of reciprocity: $\beta = .02, p = .31$). In sum, hypothesis 2 is only partially supported.

Discussion

The aim of this study was to broaden our understanding of the interdependence of experienced work stress and provided supportive coping behaviors among dual-earner couples. To this end, we used the APIM methodology to investigate how work stressors are related to the provision of emotional, instrumental, and negative support among dual-earner couples. Moreover, we examined whether these effects differ according to gender. Our results indicate that individuals provide more emotional and instrumental support to their stressed partner and

that stressed individuals tend to provide more negative support to their partner. All these effects were equally strong for men and women.

Theoretical and Practical Implications

Our study makes several contributions to the current state of research on dual-earner couples. First, we extend knowledge on crossover effects by pointing out how work stressors influence both one's own and the partner's support provision. Although the existing research on crossover effects on partner's well-being and behavior is substantial (for reviews see Bakker et al., 2009; Steiner & Krings, 2016), the investigation of how work stressors affect support provision to a stressed partner is rather neglected, resulting in a call for more studies on antecedents of social support provision (Devoldre et al., 2010; Verhofstadt et al., 2010). Apart from the fact that, for example, empathy (Devoldre et al., 2010), gender role orientations (Verhofstadt & Weytens, 2013), and greater emotional similarity among partners (Verhofstadt et al., 2008) have been found to predict social support providing, a more specific investigation of the role of work characteristics seems necessary. Regarding this point, we contribute by focusing on work stressors as antecedents for social support provision among dual-earner couples, namely time pressure and lack of reciprocity.

Earlier findings of work stressors and social support provision indicate that stressed employees provide less positive support to their partners (ten Brummelhuis & Greenhaus, 2018) and more negative support (Schulz et al., 2004), while partners provide more positive support to stressed employees (e.g., Iida et al., 2008; Shrout et al., 2006). Due to the scarcity of studies on support provision (Verhofstadt et al., 2010) especially in relation to work-related stressors, we introduced dyadic coping as an outcome and thus depict an overall picture of how a partner provides support to a stressed actor and how this actor in return provides support despite their own demands. Our results indicate that partners positively support the stressed

employee, specifically by providing emotional and instrumental support, which confirms previous research findings (Hilpert et al., 2018; Iida et al., 2008).

Regarding the stated partner-effect, the Spillover-Crossover model (Bakker & Demerouti, 2013) illustrates that work stress affects an employee's well-being at work and in private life, and this in turn impacts interactions in the private sphere. Empathic processes allow the partner to empathize with the work stress of the other and turn it into their own stress. Finally, the partner recognizes that the stress of the other is a potential threat to the healthy functioning of the relationship. This problem of one person's insufficient stress management now becomes a shared problem to the couple, which the partner wants to solve by providing support (Bodenmann, 2000; Morelli et al., 2015). Specifically, active listening, showing understanding, or taking on tasks that the partner would normally do are forms of support designed to build up the partner's resources (Howland, 2016). In summary, our results confirm this support pattern of a partner.

For practitioners in family and couple therapy, interventions concerning the provision of support may serve to strengthen the empathic closeness between intimate partners (Sullivan et al., 1998), so that this complex process of adapting to the needs of the other is better understood through empathy in times of work stress. Thus appropriate interventions for giving social support can be designed (Rafaeli & Gleason, 2009).

A second contribution of our study is that we not only take the partner's perspective into account, but also simultaneously examine the support behavior of the stressed employee. In line with previous findings (Schulz et al., 2004; ten Brummelhuis & Greenhaus, 2018), our results show that an employee facing high work stressors gives more negative support, possibly because the stressor reduces his own resources. Stress at work is therefore a threat that both depletes one's own resources and well-being and prevents one from providing adequate support.

Finally, we contributed to the actual state of research on gendered patterns in support provision by examining whether men and women stressed by work demands differ in their support provided. Our results highlight no gender differences, either in support by a partner nor by an actor. In other words, work stress affects men and women similarly among dual-earner couples regarding their support provision. Although previous lines of thought suggest that women provide more quantitative and qualitative support compared to men, and that this support tends to be emotional and men's more instrumental (Cutrona, 1996), the current findings about a moderating role of gender could not confirm this gendered pattern known as the *marital support gap hypothesis*.

Social expectations and gender stereotypes should be considered to interpret these results, as they might explain the gap between expected and displayed support behaviors of men and women (Aries, 1996; Verhofstadt et al., 2007). These expectations and gender role orientations are factors that should be taken into account, particularly in investigating gender differences in support behavior, as it is not sufficient to include gender as a variable and because traditional or egalitarian role attribution has different effects on support provision (Mickelson et al., 2006; Verhofstadt & Weytens, 2013). According to Livingston and Judge (2008, p. 208), gender role orientations refer to “the degree to which one identifies with the traditional conceptions (i.e., expectations) of his or her gender role”, and are related to beliefs about one's role in the work and home context. So, individuals from more traditional couples hold to the view that men should be the main breadwinner and women are caregivers and responsible for the household and childcare (Eagly, 2009). Studies have shown that within a more traditionally oriented couple, women provide in general more support (Verhofstadt & Devoldre, 2012), thus replicating the *marital support gap hypothesis*. In comparison, other findings show that these gender differences disappear in more egalitarian couples (Verhofstadt & Weytens, 2013). Furthermore, as people with a higher education tend to adopt a rather

egalitarian orientation (Coltrane, 2000), we can assume that the absence of gender effects we found is linked to the educational level of our sample given the proportion of highly educated people (nearly two thirds). Therefore, when investigating provision of social support among dual earner couples, future studies should include gender role orientation and ensure a heterogenous sample.

Limitations and Directions for Future Research

Our study presents two main limitations which should be addressed in future studies. The first limitation is its cross-sectional design, which on the one hand could successfully point out links between the variables of interest and therefore demonstrate their relevance for research, but on the other hand does not allow causal inferences (Spector, 2019). As existing findings suggest that support behavior among couples varies between days (Neff & Karney, 2005), future studies should test support provision in dual-earners considering intra-individual variation (e.g., diary studies).

A second methodological limitation concerns how data regarding gender differences in support behavior are collected, as self- and partner-report vs. observational studies seem to yield mixed results. While self- and partner-report studies on support behavior tend to reveal gender differences (e.g., Belle, 1982; ten Brummelhuis & Greenhaus, 2018; Vinokur & Vinokur-Kaplan, 1990), studies in which couples are observed and their support behavior is evaluated could not replicate these gender differences (e.g., Lawrence et al., 2008; Pasch et al., 1997). However, our results show no gender difference in providing support with respect to the different support styles, which is in line with other findings (Donato et al., 2014; Rusu et al., 2016; Verhofstadt et al., 2007). Researchers should be aware of the methodology (self- and partner-report and observational data) on the expected results.

Conclusion

Our study expands the current state of research on coping in dual earners by revealing the extent to which work stressors affect the way social support is provided among intimate partners. Our findings show that individuals facing high work stressors receive positive support by their partner, while they themselves tend to provide more negative support. Finally, it turned out that these behavioral patterns do not differ by gender. Taken together, for investigating social interactions among dual-earners couples, it is necessary to take work demands into account, as they shape their behavior in the private domain and, especially, the support provision. Thus, dyadic coping as an expression of social support provided among partners assumes the role of a resource-restoring mechanism in handling stressful situations (Bodenmann, 2005).

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Table 1*Descriptive Statistics and Correlations for Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
<u>Female Partner</u>												
1.Time Pressure	3.11	0.96	(.83)									
2.Lack of Reciprocity	3.56	1.47	.49	(.93)								
3.Emotional Support	3.97	0.68	-.07	-.04	(.84)							
4.Instrumental Support	3.39	0.94	-.11	.03	.37	(.80)						
5.Negative Support	1.60	0.65	.07	.17	-.32	-.05	(.73)					
<u>Male Partner</u>												
6.Time Pressure	3.21	0.82	.02	.10	.03	.06	.08	(.80)				
7.Lack of Reciprocity	3.61	1.38	.14	.22	.07	.11	.12	.30	(.91)			
8.Emotional Support	3.76	0.74	.15	.16	.24	.12	-.24	-.03	.05	(.86)		
9.Instrumental Support	3.48	0.86	.23	.20	.04	.09	-.13	.05	.11	.59	(.82)	
10.Negative Support	1.84	0.74	-.00	.04	-.26	-.10	.08	.11	.14	-.22	-.06	(.75)

Note. *N* = 147 dyads, 294 individuals. *M* and *SD* are used to represent mean and standard deviation, respectively. Cronbach alphas are mentioned into the diagonal. Correlations between |.17| and |.20| were significant at $p < .05$, and correlations greater than |.22| were significant at $p < .01$.

Table 2*Fit of Models According to Stressor*

Model	χ^2	df
Time Pressure		
Measurement model		
1. Free loadings	< 0.01	0
2. Actor-constrained model	2.33	3
3. Fully constrained model	4.59	6
Lack of Reciprocity		
Measurement model		
1. Free loadings	<0.01	0
2. Actor-constrained model	0.57	3
3. Fully constrained model	2.02	6

Note. $N = 147$ dyads, $p < .05$.

Table 3*Results of the Actor-Partner Interdependence Model (APIM) for the Study Variables*

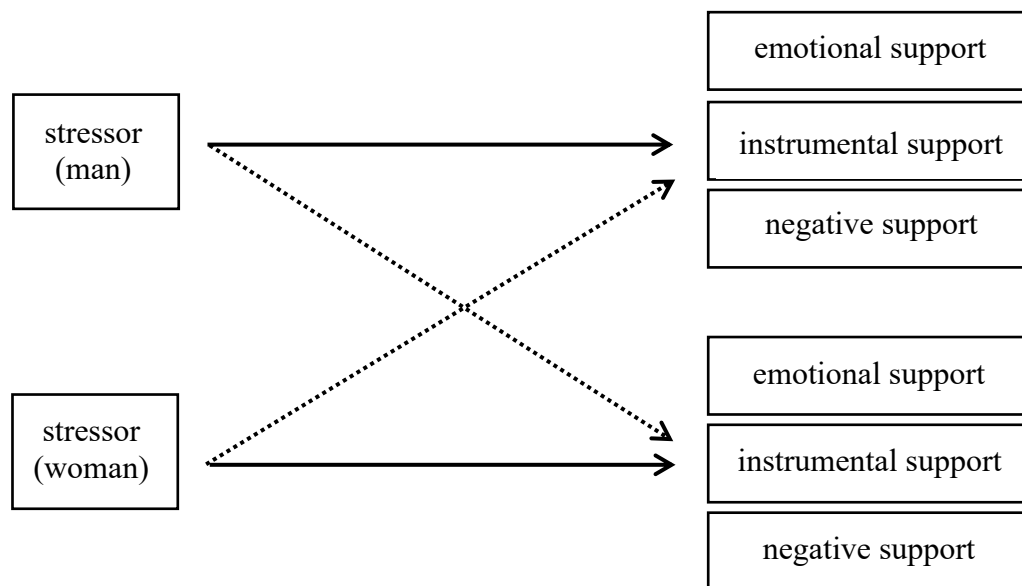
	Emotional support		Instrumental support		Negative support	
	β	S.E.	β	S.E.	β	S.E.
Actor's effect						
Time Pressure	-.05	.05	-.03	.06	.07*	.04
Lack of Reciprocity	-.01	.03	.02	.04	.07*	.03
Partner's effect						
Time Pressure	.08*	.04	.15*	.06	.03	.04
Lack of Reciprocity	.06*	.03	.09*	.04	.03	.03

Note: $N = 147$ couples. β = standardized coefficient, S.E. = standard error.

* $p < .05$.

Figure 1

Conceptual Model



Note. Dashed arrows represent partner effects. Continuous arrows represent actor effects.

4. Discussion

The aim of this dissertation was to reveal the effects of work stressors on well-being and associated coping strategies. This was implemented by means of two diary studies and a cross-sectional study. In the first diary study, our focus was on end-of-work unfinished tasks, which are rated as widespread stressors (Peifer et al., 2019) but whose effects still require further research (Syrek & Antoni, 2014). As more and more individuals perform work-related tasks outside their usual work hours using technological devices (Demerouti et al., 2014; Venkatesh & Vitalari, 1992), we explored the question of what role supplemental evening work and the ongoing goal progress play in well-being. To better understand this work behavior, namely the supplemental carrying out of work-related tasks in the evening, a more detailed investigation of its effects on well-being followed in a second study, taking into account the concept of recovery. Research was conducted on the extent to which the negative effects of supplemental evening work can be mitigated by prior leisure activities, thus far overlooked by existing research. Finally, while these two diary studies focused on a spillover effect of work-related stressors on well-being at the end of the day, we examined the crossover of stress in working couples in a cross-sectional study. For this purpose, the focus was not only on the influence of work stressors on one's own support behavior, but also on the impact on the partner's support behavior. It was important to specifically investigate factors impacting the provision of social support which, according to Verhofstadt et al. (2010), still calls for further research. In summary, the three studies in this dissertation add unique value to the field of stress and coping by addressing aspects that have tended to be disregarded thus far in research.

In the following sections, the findings from all three studies are reviewed and discussed. This is followed by reflections on the strengths and limitations of these studies. Theoretical and practical implications of these findings will also be addressed here, followed by a personal outlook.

4.1 Coping with Work Stress Brought Home: Findings from Three Studies

In the first part of this dissertation, we had a closer look at a spillover of strain by exploring how work stressors, such as unfinished tasks or supplemental evening work, affect well-being.

According to our hypotheses, leaving the workplace with unfinished tasks at the end of the workday affects well-being at bedtime in that these tasks lead to an increased feeling of tension, which correlates with previous research findings (e.g., Peifer et al., 2019; Syrek & Antoni, 2014). On a theoretical level, this subscribes to the Ovsiankina effect (1928) which suggests an internal need to finish such uncompleted work, and also to the Zeigarnik effect (1927) which specifies ongoing cognitive preoccupation with these unfinished tasks and the associated perceived tension. This first study illustrates the detrimental role of unfinished tasks and why they should be avoided for the sake of well-being.

One possible means of mitigating this burden of unfinished tasks is to complete work-related tasks in the evening. In this dissertation, therefore, we examined the short-term effects of supplemental evening work effort during leisure time. We found that employees who ended the workday with unfinished tasks were even more tense and fatigued when they performed supplemental work-related tasks in the evening. Consistent with the Effort-Recovery Model (Meijman & Mulder, 1998), the resumption of work-related tasks represents an additional effort that consumes the same resources as those required during the workday (Sonnentag, 2001) at the expense of recovery during leisure time (Sonnentag & Frese, 2003).

In a second study on supplemental evening work, conducted among teachers, it was shown that on days when they worked in the evening, they felt less recovered and were less able to detach psychologically at bedtime, but were not more tired. These results correlate to previous findings in recovery research (e.g., Garrick et al., 2018; Mojza et al., 2010; Sonnentag & Natter, 2004; ten Brummelhuis & Trougakos, 2014; Volman et al., 2013). Considering the

results of the first and second study, the conclusion is that supplemental evening work at home is behavior detrimental to well-being.

How can these negative effects of supplemental evening work on well-being be prevented? To answer the question about moderating factors, we moved the role of perceived goal progress closer to the center of our investigations (this in study 1). Thus, we tested the role goal progress plays in this additional work effort. Our results indicated that on days when employees experienced goal progress during the supplemental evening work effort, they felt less tense (but not less fatigued). While supplemental evening work seems to increase the negative effects of unfinished tasks on well-being, goal progress apparently holds the power to mitigate these negative effects. Previous findings showed that goal progress is related to increased positive and less to negative affect (e.g., Harris et al., 2003; Klug & Maier, 2014; Oatley & Johnson-Laird, 1987; Wiese & Freund, 2005). To further understand the role of goal progress when performing work-related tasks in the evening, we explored a positive facet of well-being, namely *relief*, which has been rather neglected in research (Lazarus, 1991). Our findings reveal that only when goal progress is experienced during supplemental evening work, does it significantly result in more relief, in other words it affects well-being positively.

Additionally, we shed light on a hitherto rather neglected aspect in recovery research, namely on the effects of leisure activities *after* the regular workday but *prior to* supplemental work in the evening, by investigating whether the negative effects of supplemental evening work on well-being might be attenuated. In our second study, which was conducted among teachers, only social and physical activities in combination with supplemental evening work had an effect on well-being.

With regard to social activities, we found that on days when teacher socialized prior performing work-related tasks in the evening, they felt less recovered at bedtime compared to days without socializing. While socializing (e.g., meeting with friends, phoning) people might

discuss their work as an important aspect of life, other personal resources are needed for being attentive to the other person and maintaining the interaction, thus depleting additional resources and so hindering recovery. In these social interactions people may be tempted to hide their true feelings to save face. Thus, they use skills in surface emotional acting, which not only requires an additional personal effort and consumes resources, but which has been identified as a risk factor for well-being (Hülshager & Schewe, 2011) and specifically relates indirectly to a higher need of recovery (Xanthopoulou et al., 2017). In sum, socializing in itself holds the potential to support our well-being, but seems less compatible when combined with later supplemental evening work.

With regard to physical activities, we found a moderating effect of physical exercise on the relationship of supplemental evening work on well-being. In other words, on days when teachers exercised before supplemental evening work, they were better able to mentally switch off at bedtime. Considering that teaching drains rather more mental than physical energy, exercising allows mental detachment by proceeding in particular on cognitive resources, building an active distraction from daily work tasks (Yeung, 1996).

In sum, supplemental evening work involves detrimental effects on well-being. The tested leisure activities were mainly unable to shore up sufficient personal resources to reduce the negative effects of extra evening work on well-being. Sport appears to be helpful in reducing work strain, and assists in achieving mental detachment in connection with additional work-related tasks in the evening.

In addition to these two studies on the spillover of work-related stress, we also investigated how close people may be affected by work stressors (crossover). More specifically, we investigated how work stressors affect the provision of social support among dual-earner couples. The reason for this is that, on the one hand, social support has been shown to be an effective tool in coping with stress (Viswesvaran et al., 1999) and, on the other, the

provision of social support has been rather neglected in research thus far (Verhofstadt et al., 2010). In this third study, we find out that employees suffering from higher workload benefit from more positive support provided by their partners (i.e., emotional and delegative support). Because of the empathic closeness, an intimate partner empathizes with the other's stress and also realizes the danger this stress can pose to the relationship. In other words, the individual's problem becomes a shared problem and the partner seek to assist the stressed individual in coping (Bodenmann, 2000; Morelli et al., 2015). However, we found that stressed employees provide more negative support to their intimate partners. The work-related strain depletes personal resources (ten Brummelhuis & Bakker, 2012a) and prevents the stressed employee from being more responsive to the needs of others (Danner-Vlaardingerbroek et al., 2012). These patterns are also supported by previous studies (e.g., Schulz et al., 2004; ten Brummelhuis & Greenhaus, 2018).

We were also interested in the role of gender in social support provision. According to our results, there was no difference between men and women, either among partner-effects or actor-effects. In other words, work stress affects men and women similarly in dual-earner couples regarding their provided support. This can be clarified by social expectations and gender stereotypes, as they can explain the gap between expected behavior and actual behavior of men and women (Aries, 1996; Verhofstadt et al., 2007). In summary, this third study also shows that work stress crosses over to others in close relationships and can be a threat to the healthy functioning of an intimate relationship. A stressed partner is likely to provide more negative support whereas, fortunately, positive support is afforded by the other person.

These three studies indicate a spillover and crossover of strain. Besides the employees themselves, those close to them are also burdened by stress from work-related issues. Whether it is unfinished tasks at the end of the workday, supplemental work in the evening, time pressure, or the extent to which support is provided to the partner in a relationship, an overall

picture emerges which highlights the negative effects of stress on well-being, be it on fatigue or tension, recovery, or psychological detachment. The effects of stress are numerous, which once again emphasizes its relevance as a research topic and its place in everyday working life.

4.2 Practical Implications

Practical implications can be derived from the findings of these three studies on spillover and crossover of work stress. Regarding supplemental evening work, it becomes clear that this "supplemental work after hours may be a double-edged sword" (Weigelt & Syrek, 2017, p. 1607). According to these authors, supplemental evening work enables progress in unfinished tasks. However, the same resources are consumed as during the workday (Sonnentag, 2001), which leads to a decrease in recovery and to compromised well-being. The significant moderation of goal progress in the first study shows that the experience of positive emotions during supplemental evening work is of the greatest importance for well-being. Therefore, employees should be careful to set lower goals in order to achieve a sense of accomplishment despite the additional efforts. The Goal-Setting Theory by Locke and Latham (2002) provides appropriate guidelines for this. Supervisors should also rethink the organization and assignment of daily work tasks so that their employees do not end the workday with uncompleted tasks, which - as can be seen in study 1 - can negatively affect their well-being.

In the case of an additional workload in the evening, it is even more important to recover sufficiently. As already indicated by Oja et al. (2015) and in our study 2, physical exercise has a positive effect on well-being. If employees perform supplemental work-related tasks in the evening, prior physical exercise is a means to mitigate the negative effects of this evening work. This was not the case with social leisure activities which negatively affected well-being in combination with subsequent supplemental evening work. Therefore, employees should avoid

socializing after the workday if they intend to undertake work-related tasks in the evening of the same day.

The fact that work stressors not only affect one's own behavior and well-being (as shown in the first two studies) but also that of close people was illustrated in the study 3 of this dissertation, in which the influence of work stressors on the provision of social support among dual-earner couples was investigated. The findings are of particular interest for therapeutic settings. Here, practitioners in couple and family therapy could strengthen the emotional closeness between partners in a relationship through social support interventions (Sullivan et al., 1998) so that the complex process of matching needs and redressing the balance between partners is better understood. Therefore, interventions for the provision of appropriate social support should be conceptualized (Rafaeli & Gleason, 2009).

On a more general note, there should be more communication on the effects of work stress in the scope of further training, employee meetings or other exchange opportunities, given that it has an impact on behavior and well-being on both an individual and a couple level.

4.3 Limitations and Directions for Future Research

Future studies should address the following methodological and theoretical limitations to expand our understanding with regard to unfinished tasks, supplemental evening work and the provision of social support.

In terms of supplemental evening work, we found in our first study that employees worked for an average of only around 15 minutes in the evening. In the second study, we considered only whether, and not for how long, supplemental evening work was performed. Although only a short-term period (study 1) or the simple fact of mentioning having performed supplemental evening work (study 2) already revealed effects on well-being, future studies

could examine the impact of supplemental evening work over a longer period of time and take the duration into more detailed account.

To better understand this phenomenon of supplemental evening work and in keeping with suggestions by Syrek and Antoni (2014), scholars might start by investigating whether these tasks are attractive (Pychyl et al., 2000), their urgency for completion and their priority over other tasks (Ashford & Northcraft, 2003; Claessens et al., 2010) and if they had initially been planned (Gollwitzer, 1999). In a similar vein, by whom the tasks have been assigned might influence affective outcomes, as for example tasks assigned by others (e.g., supervisor) might be perceived as more urgent than self-assigned tasks.

By conceptualizing supplemental evening work as an antagonist to recovery, future studies should also focus more on the type of leisure activities undertaken, for example creative and cultural activities (painting, pottery, acting or playing an instrument and so on). Based on the tenets of the Self-Determination Theory (Ryan & Deci, 2000) and related to the facets of recovery experiences (Sonnentag & Fritz, 2007), it can be assumed that the pursuit of creative tasks, in which competence and autonomy are experienced, can contribute to self-realization and can develop a motivational potential holding beneficial effects for well-being and thus recovery. These basic needs align with the notion that it is less about the leisure activity itself but more about the recovery experience during an activity, for example mastery, autonomy or relatedness, that affects our well-being (Sonnett et al., 2017). Former studies confirm the relationship of creative and cultural leisure activities for well-being, namely physical and mental health (Acar et al., 2020; Iwasaki et al., 2005; Leckey, 2011). Therefore, to date, the field of creative activities has remained rather unexplored and should be addressed more thoroughly in recovery research.

Another limitation is the duration of the performed leisure activities. We only considered whether, and what type of activities, were carried out prior to supplemental evening

work. As some findings consider the duration of leisure activities (e.g., Mojza et al., 2010; Rook & Zijlstra, 2006; Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006), we also encourage researchers to include this aspect when investigating, for example, when a leisure activity begins to affect well-being. Furthermore, future studies should examine the nature and duration of leisure activities undertaken *in the morning* before the start of the workday. This could be of particular interest for teachers, as their work schedules might vary highly under the week. Therefore, we echo the recommendations of Sonnentag et al. (2017) and call for further investigations on temporal issues in recovery research.

Future studies should also address the following methodological limitations, namely the composition of the study samples and used designs. Scholars could pay attention to more heterogeneous samples when exploring work behaviors of employees in the private context, given that in our first study on unfinished tasks and supplemental evening work nearly 64% of the participants hold a university degree. In this sense, Almeida (2005) suggests that people with a higher socio-economic status regulate strain differently than people with a lower socio-economic status. Regarding the second study on supplemental evening work and recovery, a high number of female teachers participated. As the data collection for this second study took place during the COVID pandemic in Fall 2020, the daily life and especially the well-being of teachers might have been strongly implicated (Alves et al., 2021). This unequal distribution in educational background and gender thus represents limitations in sampling.

With regard to the used study designs in the third study on the impact of work stressors on social support provision, we are limited in formulating causal relationships (Spector, 2019), even though we identified effects of work stressors on social support provision by means of a cross-sectional design. Given that support behaviors among couples vary across days (Neff & Karney, 2005), future studies should further examine intra-individual effects regarding the support provision, for example, by using multilevel modeling. Finally, another methodological

limitation relates to the gender examination of social support behavior, as self or partner-report data compared to observational data yield mixed results. Interestingly, self and partner-report data tend to conclude gender differences (e.g., ten Brummelhuis & Greenhaus, 2018), while observational data fail to reveal any (e.g., Lawrence et al., 2008; Pasch et al., 1997). Nevertheless, we did not find gender differences in the provision of social support, thus our results match previous ones (e.g., Donato et al., 2014; Rusu et al., 2016; Verhofstadt et al., 2007). Researchers should be aware of this methodological issue apparently affecting conclusions on support patterns.

In conclusion, scholars should address these limitations by replicating these studies with more homogeneous samples and different designs.

4.4 A Personal Outlook

In addition to the aforementioned theoretical and methodological implications for research, a personal outlook for occupational psychologists in human resources management follows, summarized by the following keywords: regulated work from home in times of digital change and customized training on occupational health issues.

In times of rapid change due to digitalization which has been emerging for years, flexplace working and the use of technological resources has become a more and more popular work behavior (Allen et al., 2015). This can, in turn, reduce conflicts between work and private life (Hill et al., 2004) and might be an expression of economic and scientific measures taken by companies in response to constantly growing demands. However, it is precisely this resumption of work-related tasks in the evening in a private sphere which harbors risks, as has been highlighted in the context of this dissertation. In addition to increasing personal productivity and counteracting performance losses during the workday (Weigelt & Syrek, 2017), I note that this work behavior is primarily a risk factor and stressor, the effects of which

on well-being can only be inadequately prevented. In my opinion, even though organizations should meet the desire of their employees for more flexibility in their work tasks, it seems necessary to inform them about the consequences of supplemental evening work to develop preventive regulations. For this reason I would suggest that supervisors be participative in organizing and assigning work so that employees do not leave their workplace with unfinished tasks and feel forced to complete them in the evening. Here - as shown in the context of this dissertation - noticeable progress on the tasks during the evening work effort is of the greatest importance for well-being. Employees should also take care to exercise sufficiently beforehand in order to stay fit and be able to switch off at bedtime. Finally, coping with work stress is not only a personal affair, but close people are a source of support in handling strain, especially the intimate partner. In other words, organizations should avoid sending their employees to work from home as a cost-cutting measure, but see it as an opportunity to better meet their employees' needs although this requires certain rules. From my perspective, taking such rules into account, flexplace working in the evening outside regular working hours can become a promising behavior that is well compatible with digital change.

That, from my perspective, the future occupational health management will (and must) take a fixed place in organizations (less as a human resources practice and marketing measure but more as a necessary means of improving performance, health and motivation) is also suggested in findings from Gesundheitsförderung Schweiz (2017). According to their findings, topics such as stress prevention and mental health are (and will be) of particular concern to organizations throughout Switzerland. As shown in the context of this dissertation, work stressors such as time pressure, unfinished tasks or working in the evening are only examples of stressors that are part of modern everyday professional life. This is why, in my opinion, there is an urgent need for customized training on the prevention and effects of work stress (for example: What is stress? What are the causes and consequences of work stressors? What about

prevention methods?). Customized training should make it clear that supervisors act as role models for healthy work routines, as suggested by Koch and Binnewies (2015). In addition, the training should point, firstly, to the importance of a participative approach in occupational health interventions (Kompier et al., 1998; Nielsen et al., 2010) so that employees “perceive themselves to be agents of change rather than objects of change” (Semmer, 2006, p. 522), and secondly, to the misleading belief that “occupational health interventions are often seen as something separate from running the daily business and ensuring high performance (that is, as a “nice to have” rather than as integral to the effectiveness of the organization).” (Nielsen et al., 2010, p. 252). Moreover, it should be highlighted that the digital transformation as an opportunity for change must be approached with caution with regard to occupational health issues. Finally, in training more bridges should be built between research and practice.

As work stress first finds meaning on an individual level, then objectively impacts organizations and society, the need for action for occupational psychologists in human resources is urgent in order to meet the challenges of tomorrow's health management. These professionals are even more in demand and should identify themselves as human-centered “agents of change” to promote well-being among employees as a success factor of future challenges.

5. Conclusion

Work stressors and the associated strain inevitably affect our well-being. As the studies presented in this dissertation show that work stressors and supplemental evening work not only impact our affective and cognitive well-being, effects on both individual and couple levels have been found.

On the question of what can be done to mitigate the detrimental effects on well-being, recommendations were formulated. In terms of ending the workday with unfinished tasks, additional work efforts should only be carried out in the evening if goal progress is experienced on these tasks. Regarding the nature of leisure activities prior to supplemental evening work and which can mitigate its negative effects, the second study highlighted that physical exercise encourages psychological detachment at bedtime. Finally, the third study showed that employees suffering from higher work demands provide more negative support to their partners, and that they benefit from partners providing more positive support. Knowing that work stressors affect not only one's own support behavior but also that of others, increases our awareness of the consequences of work stress at individual as well as at partner level, and our awareness of how positive support from a partner can contribute to a harmonious intimate relationship.

In conclusion, stress is an unavoidable side effect of everyday work life that stems from various sources and encroaches on our personal lives. Therefore, it is important to be conscious of its effects on well-being and to identify available resources to help us cope with it. Finally, it is also essential for organizations to commit to occupational health management issues to ensure that one of their most precious resource, their employees, benefit from strong well-being and good health.

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Appendix – Deutsche Übersetzung

Auf Wunsch des Autors beinhalten die folgenden Seiten eine eigene freie deutsche Übersetzung dieser Dissertation, wobei die drei beinhalteten Manuskripte für diese Übersetzung nicht berücksichtigt wurden. Auch hier gilt, dass sich Personenbezeichnungen sowohl auf Frauen wie auch auf Männer beziehen.

Arbeitsbezogener Stress

Seit Jahrzehnten nimmt Stress und sein Einfluss auf das Befinden nicht nur in den Massenmedien, sondern insbesondere auch in der psychologischen Forschung einen bedeutsamen Platz ein, was sich in der zunehmenden Anzahl wissenschaftlicher Publikationen zeigt (Bliese et al., 2017; Burman & Goswami, 2018). Ein zentraler Aspekt theoretischer Ansätze und Studien zum Thema Stress ist oftmals das Individuum und seine Reaktion auf seine nahe Umgebung, wie dies beispielsweise auch in der einflussreichen *transactional stress theory* (Lazarus & Folkman, 1984) der Fall ist, die sich genauer gesagt, auf die subjektive Wahrnehmung von Ereignissen und deren Bewertung durch das Individuum selbst bezieht. Nicht nur die Wahrnehmung von Ereignissen, sondern auch der Umgang mit den eigenen persönlichen Ressourcen zur Stressbewältigung muss berücksichtigt werden, wie es bei renommierten Theorien wie der COR-Theorie von Hobfoll (1998) oder dem Work-Home Resource Model von ten Brummelhuis und Bakker (2012a) der Fall ist. All diese Theorien werden hinzugezogen, um das Phänomen *Stress* besser zu verstehen.

Im Rahmen dieser Dissertation und der durchgeführten Studien konzentrieren wir uns auf Berufstätige, die mit arbeitsbedingtem Stress konfrontiert sind, der laut Weltgesundheitsorganisation (2020) als "the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope" definiert wird. Arbeitsstress entsteht, wenn sich ein

Ungleichgewicht zwischen den arbeitsbezogenen Anforderungen und den persönlichen Ressourcen bildet, an das sich angepasst werden muss. Zusätzlich zu diesem weitverbreiteten Konzept von Arbeitsstress wird zur besseren Abgrenzung häufig zwischen "stressors (conditions and events causing subsequent reactions), perceived stress (perception and appraisal of the stressors), and strains (psychological, physiological, and behavioral outcomes)" unterschieden (Bliese et al., 2017, S. 390).

Stress wirkt sich auf den Alltag aus, prägt die Interaktionen zwischen den Mitarbeitenden und sollte bei der Planung und Gestaltung der Arbeitsaufgaben berücksichtigt werden sollte. Er zeigt sich als Realität, die zum Alltag in Unternehmen gehört. Der Preis, den Organisationen und ihre Mitarbeiter zu zahlen haben, ist hoch: Stress ist nicht nur mit individuellen Kosten verbunden, nämlich mit verminderter Arbeitsleistung und beeinträchtigtem Befinden, sondern er impliziert auch betriebliche Kosten wie Produktionseinschränkungen, Qualitätsminderungen oder Fehlzeiten (Grebner et al., 2010). Gemäss Galliker et al. (2020) von der Stiftung *Gesundheitsförderung Schweiz*, einer Stiftung mit dem Ziel der Gesundheitsförderung und Prävention, klagen sogar drei von zehn Schweizer Arbeitnehmenden über ungenügende Ressourcen zur Bewältigung der Arbeitsanforderungen und fast ein Drittel von ihnen über emotionale Erschöpfung, während die Arbeitgebende mit stressbedingten Kosten in Höhe von rund 7,6 Milliarden Franken pro Jahr zu kämpfen haben, Tendenz steigend. Zu ähnlich alarmierenden Ergebnissen kam bereits die sogenannte *Swiss Stressstudie 2010* von Grebner et al. (2010), die im Auftrag des Staatssekretariats für Wirtschaft (SECO) in der Schweiz bei Berufstätigen durchgeführt wurde. Diesen Autoren zufolge ist der Anteil der sehr häufig gestressten Arbeitnehmenden um fast zehn Prozent gestiegen und macht inzwischen etwa ein Drittel der berufstätigen Bevölkerung aus. Diese gestressten Arbeitnehmenden leiden nicht nur unter Symptomen und Folgen wie Burnout, gesundheitlichen Problemen und einer erhöhten Unzufriedenheit mit ihren

Arbeitsbedingungen, sie berichten beispielsweise auch über erhöhten Zeitdruck und unklare Anweisungen im Arbeitsalltag, aber auch über die Erledigung arbeitsbezogener Aufgaben in ihrer Freizeit (ein Aspekt, der für die vorliegende Dissertation von besonderem Interesse ist). Wenn also über Stress berichtet wird, sollten auch Bewältigungsstrategien zum Thema gemacht werden, da sie das Ausmaß der Belastungen verdeutlichen und Richtlinien für den Umgang mit ihnen liefern. Meines Erachtens besteht gerade hier bei Schweizer Arbeitnehmenden noch ein grosser Handlungs- und Forschungsbedarf, denn gemäss der bereits erwähnten *Swiss Stressstudie 2010* (Grebner et al., 2010) lag der Anteil der Arbeitnehmenden, die sich vollständig in der Lage fühlten, Stress zu bewältigen, in den letzten Jahren nur noch bei rund einem Fünftel, Tendenz sinkend. Diejenigen mit höheren Bewältigungskompetenzen waren jedoch mit ihren Arbeitsbedingungen zufriedener und waren imstande, über ein allgemein besseres Befinden zu berichten.

Zusammengefasst lässt sich sagen, dass arbeitsbedingter Stress bei (Schweizer) Arbeitnehmenden und deren Stressbewältigungsverhalten heute eine ernstzunehmende gesellschaftliche Problematik darstellt, die zurecht als führendes Forschungsthema insbesondere in der betrieblichen Gesundheitspsychologie gilt. Auch für Unternehmen und deren betriebliches Gesundheitsmanagement ist und bleibt es von großer Bedeutung.

Unter Berücksichtigung dieser Gedankengänge lässt sich eines ohne Zweifel daraus schliessen: Stress bedeutet eine Gefahr für das Befinden und die Notwendigkeit, zu handeln, ist gross.

Um einen Beitrag auf wissenschaftlicher Ebene zu leisten, der auch zu Veränderungen im Berufsalltag von Angestellten ermutigen soll, gehe ich auf spezifische berufsbezogene Stressoren und deren Konsequenzen für das Befinden ein, da hier noch ein grosser Forschungsbedarf besteht. Was heisst das im Detail? Nebst gängigen Stressfaktoren, wie Zeitdruck, werden die positiven und die negativen Auswirkungen von unfertigen Aufgaben auf

das Befinden untersucht, da es hier noch weiterer Forschung bedarf (Syrek & Antoni, 2014). Auch Bewältigungsstrategien stehen in der gesamten Dissertation im Fokus. So liegt beispielsweise das Augenmerk auf der Ausführung berufsbezogener Aufgaben am Abend, was heutzutage ein verbreitetes Arbeitsverhalten während der Freizeit darstellt und oftmals mittels technologischer Hilfsmittel erfolgt (Demerouti et al., 2014; Venkatesh & Vitalari, 1992). Ebenso interessiert uns, ob die Ausführung von Freizeitaktivitäten *vor* einem berufsbezogenen Aufwand am Abend einen Einfluss auf das Befinden hat oder ob sich das Geben sozialer Unterstützung nahestehenden gestressten Personen positiv auswirkt. Genau diese Aspekte fanden bislang in der Stressforschung nicht genügend Beachtung. Daher werden in den folgenden Zeilen theoretische Überlegungen dazu erläutert und durchgeführte Studien präsentiert.

Ein Spillover berufsbezogener Belastungen

Arbeitsbedingter Stress ist nicht ausschliesslich ein Phänomen, das sich auf das berufliche Umfeld beschränkt und mit dem Feierabend abklingt. Negative Erlebnisse wie Ärger mit Kunden, ausgeprägter Zeitdruck, Anspannung aufgrund schwieriger Besprechungen, Unhöflichkeit seitens der Kollegen, all diese Gründe können den Alltag und damit auch das Verhalten der Mitarbeitenden belasten, die dann möglicherweise gestresst nach Hause gehen. Hier ist es durchaus vorstellbar, dass aufgrund dieses beruflichen Stresses während des Arbeitstages die nötige Energie fehlt, um nach der Arbeit mit den eigenen Kindern zu spielen, einer sportlichen Freizeitaktivität nachzugehen oder sich für den Alltag und das Befinden des Partners zu interessieren. Stress während des Arbeitstages wirkt sich nicht nur auf das Befinden und das Verhalten der gestressten Arbeitnehmenden selbst und nicht nur auf das berufliche Umfeld aus, sondern er begleitet die Arbeitnehmenden auch weiterhin in ihrem Privatleben, wo dann die Interaktionen mit nahestehenden Personen beeinträchtigt werden kann.

In der psychologischen Forschung wird dieses Phänomen durch das sogenannte Spillover-Crossover Modell von Bakker und Demerouti (2013) veranschaulicht. Diesem Modell zufolge wirken sich die Anforderungen, denen eine Person in einem Lebensbereich - wie dem Arbeitsumfeld - ausgesetzt ist, auf ihre weiteren Lebensbereiche - wie das Privatleben - aus. Der Spillover ("sometimes labeled work-family conflict", Bakker et al., 2009, S. 207) bezieht sich auf eine bereichsübergreifende intra-individuelle Übertragung von Belastungen (siehe Bakker & Demerouti, 2013). Forschungsergebnisse bestätigen, dass solche Übertragungen von Belastungen und Konflikten mit der Partnerschafts- und der Familienzufriedenheit (Cardenas et al., 2004; Voydanoff, 2005b; Ford et al., 2007), mit Depressionen oder Angstzuständen (z. B., Frone, 2000; Netemeyer et al, 1996; Vinokur et al., 1999), mit allgemeiner Belastung (Bakker et al., 2009) oder auch mit körperlichen Gesundheitsbeschwerden (Adams & Jex, 1999; Geurts et al., 2003) zusammenhängen. Beide Lebensbereiche, Arbeits- wie Privatleben, scheinen miteinander verknüpft zu sein und nicht unabhängig voneinander zu existieren. Das, was bei der Arbeit (bzw. im Privatleben) erlebt wird, beeinflusst das Verhalten im Privatleben (bzw. das im Arbeitsleben).

Stressbewältigung und Ressourcen

Wie kann eingegriffen werden, um das Stressempfinden der Mitarbeitenden und die negativen Auswirkungen auf deren Befinden zu verringern? Abgesehen von der Tatsache, dass Unternehmen die arbeitsbedingten Anforderungen reduzieren oder sogar potenzielle Stressoren beseitigen sollten, besteht eine Lösung darin, die persönlichen Ressourcen zu fördern und zu stärken, welche die Mitarbeitenden zur Stressbewältigung benötigen (wie es beispielsweise der Fall beim Gefühl des Vorankommens oder der instrumentellen Unterstützung seitens des Beziehungspartners ist). Herauszufinden, wie man gezielt die Erholung begünstigen oder zur Entwicklung neuer Ressourcen beitragen kann, hilft, sich an herausfordernde Umstände

anzupassen, was schliesslich das Befinden positiv unterstützen wird. Daher ist die Förderung vorhandener und der Aufbau von neuen Ressourcen ein Mittel zur Bewältigung von Arbeitsstress.

Im Hinblick auf die Bewältigung von Arbeitsstress fokussiert diese Dissertation auf Verhaltensweisen, die darauf abzielen, persönliche Ressourcen zu erwerben, zu entwickeln und zu nutzen. Die folgenden Theorien, nämlich die *Conservation of Resource Theory* von Hobfoll (1998) und das *Work-Home Resource Model* von ten Brummelhuis und Bakker (2012), dienen in dieser Arbeit als Erklärmechanismen, weshalb arbeitsbedingter Stress eine Gefahr für das Befinden und das eigene Ressourcenmanagement bedeutet.

Die Conservation of Resource Theory von Hobfoll (2002), auch COR-Theorie genannt, wird seit Jahrzehnten in der psychologischen Forschung verwendet und ist wahrscheinlich eine der am häufigsten zitierten Theorien zur Erklärung der Auswirkungen von Stress und Bewältigung (Hobfoll, 2011). Dieser Theorie zufolge haben Menschen ein intrinsisches Bedürfnis, jenes zu schützen, was sie als wertvoll erachten, und solche Ressourcen wie beispielsweise das Befinden zu pflegen. Die Aufrechterhaltung und der Erwerb schützenswerter Ressourcen motivieren und dienen einer erfolgreichen Anpassung an die eigene Umwelt, die Anforderungen an das Individuum stellt (Hobfoll, 2011). Diese Ressourcen können als "object resources (e.g., tools for work, car), condition resources (e.g., supportive work relationships, seniority at work), personal resources (e.g., key skills and personal traits such as self-efficacy and self-esteem), and energy resources (e.g., knowledge, credit)" (Hobfoll, 2011, S. 117) definiert werden, wobei die Theorie den Schwerpunkt auf die Bedeutung von Ressourcen sowohl auf individueller Ebene als auch auf allgemeiner Ebene in Bezug auf Interessensgruppen legt (Hobfoll et al., 2018). Betrachten wir zum Beispiel ein Unternehmen, das die Kinderbetreuung durch die Einrichtung einer betriebseigenen Kindertagesstätte fördert. Einerseits stellt es für manche berufstätigen Eltern eine hilfreiche

Ressource dar, die ihnen bei der Organisation des Berufsalltags dienlich sein kann. Andererseits stellt diese betriebseigene Kindertagesstätte auf einer allgemeinen Ebene einen marketingrelevanten Mehrwert für die Personalpolitik und die Unternehmensstrategie dar, da sie als Ressource seitens des Unternehmens gewertet wird. Ressourcen haben also eine individuelle Bedeutung, die sich zusätzlich auf bestimmte Interessengruppen ausweiten lässt.

Die Conservation of Resource Theory umfasst mehrere Teilprinzipien. Ein Grundsatz besagt, dass der Aufbau neuer Ressourcen die Nutzung vorhandener Ressourcen voraussetzt. Die Notwendigkeit, bestehende Ressourcen zu schützen, wird in weiteren Grundsätzen deutlicher, da ein sogenannter *resource loss cycle* entstehen kann, wonach es umso schwieriger wird, Ressourcen aufzubauen, je mehr sie verloren gehen. Der Verlust von Ressourcen zieht oft weitere nach sich, es entsteht also ein Kreislauf. Ein Beispiel: Nach einem anstrengenden Arbeitstag kann sich eine berufstätige Person in ihrer Freizeit nur schwer erholen, weil sie sich zu erschöpft fühlt. Sie könnte nachts schlecht schlafen, am nächsten Morgen erschöpft aufwachen und am nächsten Tag ihre arbeitsbezogenen Aufgaben energielos erledigen. Der Verlust von Ressourcen geht häufig mit einem weiteren Verbrauch von Ressourcen einher.

Insgesamt konzentriert sich diese Theorie auf die Verwaltung persönlicher oder organisatorischer Ressourcen. Die Wahrnehmung von Stress nach einer persönlichen Anstrengung hängt mit einer eingeschätzten Bedrohung für die eigenen Ressourcen zusammen (Hobfoll et al., 2018). Der Mehrwert dieser Theorie besteht darin, dass sie die Bedeutung von Ressourcen als Hilfsmittel für die Reaktion auf Stressoren und für die Anpassung an herausfordernde Umstände hervorhebt.

Persönliche Ressourcen als Bindeglied zwischen Arbeit und Privatem

Da es in dieser Dissertation um die Auswirkungen von Stress geht, der im Arbeitsumfeld entsteht und das Verhalten sowie das Befinden im privaten Bereich beeinflusst,

wird auch das Work-Home Resource Model von ten Brummelhuis und Bakker (2021) vorgestellt, das die zuvor erwähnte COR-Theorie erweitert und sich auf die Rolle der persönlichen Ressourcen in dieser Interaktion der beiden Lebensbereiche konzentriert. Das Work-Home Resources Modell (W-HR-Modell) besagt Folgendes: "work-home conflict as a process whereby demands in one domain deplete personal resources and impede accomplishments in the other domain." (ten Brummelhuis & Bakker, 2012a, S. 545). Demzufolge bedarf es zusätzlicher Anstrengungen, um diese kontextuellen Anforderungen zu bewältigen (z. B. Demerouti et al., 2001). Zeitdruck, Überlastung oder emotionale Arbeit sind Beispiele solcher kontextuellen Anforderungen. Ausserdem betont das Modell, dass das Aufkommen kontextueller Anforderungen (z.B. Stressoren aus dem Arbeitsumfeld) auch das Auftreten kontextueller Ressourcen bedingen kann.

Diesem Modell zufolge können kontextuelle Ressourcen beispielsweise emotionale oder instrumentelle Unterstützung von nahestehenden Personen oder die Ausübung von Freizeitaktivitäten sein, während zu den persönlichen Ressourcen Fähigkeiten, Erfahrung, Gesundheitszustand, finanzielle Möglichkeiten oder auch die eigene Selbstwirksamkeit gehören. Diese kontextuellen Anforderungen und Ressourcen sowie die persönlichen Ressourcen können sich beispielsweise im privaten Umfeld auf die Beziehungszufriedenheit auswirken, oder auch auf das Verhalten gegenüber Familienmitgliedern, auf die eigene Fähigkeit, am Abend abzuschalten, auf die Stimmung oder auch auf das Befinden Einfluss haben.

Nehmen wir das Beispiel eines Angestellten, der aufgrund von Zeitknappheit unter Druck steht und mit Arbeitsaufgaben überhäuft wird (contextual demands). Übernimmt beispielsweise ein Kollege während des Arbeitstages einige Aufgaben (kontextuelle Ressource), entlastet dies den gestressten Arbeitnehmenden, der sich so wahrscheinlich besser auf arbeitsbezogene Aufgaben konzentrieren kann und sich besser fühlt. Nach dem Arbeitstag

geht dieser dann besser gelaunt nach Hause (persönliche Ressource), da er an seinen Aufgaben arbeiten konnte, und verhält sich gegenüber seiner Familie zu Hause freundlicher. Persönliche Ressourcen, die mit kontextuellen Anforderungen zusammenhängen, bestimmen, wie wir uns in unserem Privatleben verhalten und fühlen.

Ähnlich wie bei der COR-Theorie stellen die Autoren des W-HR-Modells Leitprinzipien auf. Zum Beispiel verdeutlichen sie, dass Work-Home-Konflikte durch den Einfluss von kontextuellen Anforderungen verursacht werden und sie eine zeitliche Komponente aufweisen, die sich im Einfluss kurzfristiger (als *volatil* bezeichneter) oder langfristiger (als *strukturell* bezeichneter) kontextueller Anforderungen und Ressourcen auf volatile bzw. strukturelle persönliche Ressourcen zeigt.

Insgesamt ist das W-HR-Modell ein Erklärmechanismus, der die COR-Theorie von Hobfoll (2002), welche die allgemeine Bedeutung von Ressourcen für die Bewältigung und das Befinden hervorhebt, ergänzt, indem zusätzlich die Rolle persönlicher Ressourcen als verbindendes Element zwischen Arbeit und Privatleben hervorgehoben wird. Ausserdem verdeutlicht das Modell, weshalb die Anforderungen eines Bereichs die Ergebnisse eines anderen Bereichs beeinflussen.

Erholung und mentales Abschalten von berufsbezogenen Anforderungen

Wie in den vorangegangenen Abschnitten erläutert wird, sind Ressourcen ein nützliches Mittel zur Bewältigung von Stresssituationen, weshalb der Aufbau neuer Ressourcen gefördert werden sollte. Doch kommt die Frage auf, wann diese Ressourcen aufgebaut werden können. Ebenso wichtig wie die Ressourcen sind die Erholungsphasen, in denen keine weiteren Anforderungen an den Organismus gestellt werden und die somit eine Gelegenheit zur Regeneration und zum Aufbau von Ressourcen bieten. Darum sind Erholung

und Ressourcen zwei stark miteinander verknüpfte Konzepte, die beide für das Befinden von großer Bedeutung sind.

Erholung als führendes Thema in der betrieblichen Gesundheitspsychologie (Sonntag et al., 2017) scheint nicht nur für die Bewältigung insbesondere arbeitsbedingter Belastungen notwendig zu sein (Sonntag & Fritz, 2014), sondern hilft einem Organismus auch, seine physiologischen und psychologischen Prozesse auf ein Prä-Stressor-Level herunterzufahren (Meijman & Mulder, 1998), was zu einem langfristigen Wohlbefinden beiträgt (Sonntag, 2003). Erholung kann wie folgt definiert werden: "a process opposite to the strain process (Craig & Cooper, 1992) during which short-term strain reactions are alleviated so that they will not result in more longer-term impairment of well-being." (Sonntag, 2018, S.2). Erholung kann zustande kommen, wenn Aktivitäten durchgeführt werden, die eine mentale Ablenkung bieten (Sonntag & Bayer, 2005) und nicht dieselben Ressourcen wie jene, die während des Arbeitstages genutzt werden, verbrauchen (Sonntag, 2001).

Nicht nur die Untersuchung von Freizeitaktivitäten per se (auf die später in dieser Dissertation näher eingegangen wird) wie Sport, Freunden treffen oder die Ausführung von Aktivitäten mit geringem Aufwand (z.B. fernsehen), sondern auch eine Untersuchung der bei diesen Aktivitäten empfundenen "recovery experiences" wie mentales Abschalten, Entspannung, Kompetenz und Kontrolle (Sonntag & Fritz, 2007) sowie des Schlafverhaltens (Fritz & Crain, 2016) kann hilfreich sein, um das Konzept der Erholung und die ihm zugrunde liegenden Mechanismen für das Befinden besser zu verstehen.

Das mentale Abschalten als eines der Facetten der genannten recovery experiences, das in der zweiten Studie innerhalb dieser Dissertation näher erläutert wird, kennzeichnet einen notwendigen Erholungsprozess (Sonntag & Bayer, 2005) und impliziert, sich weder gedanklich mit arbeitsbezogenen Belangen zu beschäftigen noch solche Aufgaben in der

Freizeit zu erledigen, um eine physische und psychische Distanz zur Arbeit zu erlangen (Sonnentag & Fritz, 2007). Diese Distanzierung definiert sich gemäss Sonnentag und Fritz (2014, S. 74) wie folgt: "experience whether being mentally involved in any other content area (e.g., a hobby, one's children's school problems, or family activities)".

An dieser Stelle wird kurz auf das Stressor-Detachment-Modell von Sonnentag und Fritz (2014) eingegangen, da es die Rolle des psychologischen Abschaltens in der Beziehung zwischen Arbeitsstressoren und Belastung verdeutlicht. Diesem Modell zufolge wirken sich Arbeitsstressoren direkt auf das Befinden aus, und diese wahrnehmbaren Reaktionen, ob auf affektiver, psychologischer oder physiologischer Ebene, stellen einen wahrnehmbaren Ausdruck einer (negativen) Reaktion auf herausfordernde Anforderungen dar. Sie können auch dann noch bestehen, wenn die Anforderungen nicht mehr an das Individuum gestellt werden. Zu erkennen, dass eine körperliche oder mentale Reaktion stattfindet, löst mentale Muster aus, die beispielsweise dazu führen, dass der Arbeitstag mental noch einmal durchlebt wird und man sich mit arbeitsbezogenen Themen auseinandersetzt. Die erlebte mentale Aktivierung verhindert ein mentales Abschalten in der Freizeit, was sich negativ auf verschiedene Facetten des Befindens auswirkt.

So zeigen Forschungsergebnisse, dass das psychologische Abschalten mit positivem Affekt am Ende des Tages (Demerouti et al., 2012; Feuerhahn et al., 2014; Sonnentag & Bayer, 2005), mit mehr Lebenszufriedenheit (Fritz et al., 2010; Hahn & Dormann, 2013), mit weniger psychischer Belastung und Ermüdung (Moreno-Jiménez et al., 2009; Sonnentag & Bayer, 2005) zusammenhängt. Ausserdem steht dieses mentale Abschalten in negativem Zusammenhang mit emotionaler Erschöpfung und Burnout (Etzion et al., 1998; Hahn et al., 2011; Taris et al., 2008), mit Konflikten zwischen dem Arbeits- und dem Familienleben (Demsky et al., 2014), mit somatischen Beschwerden (Moreno-Jiménez et al., 2012) und mit dem Bedürfnis nach Erholung (Siltaloppi et al., 2009; Sonnentag & Fritz, 2007; Sonnentag et

al., 2010). Insgesamt zeichnet sich also ein Bild ab, in dem das physische und psychische Abschalten von der Arbeit für das Befinden von Berufstätigen notwendig erscheint. Daher sollten Unternehmen und ihre leitenden Angestellten als Vorbilder fungieren (Sonntag & Fritz, 2014) und entsprechende Richtlinien für ihre Mitarbeitende erstellen, damit diese ihren Arbeitstag am Feierabend hinter sich lassen und sich am Ende des Tages besser erholen können.

Wenn die Gewinnung einer solchen mentalen und physischen Distanz zum Befinden beiträgt, kann vermutet werden, dass die Erledigung berufsbezogener Aufgaben am Abend nach einem Arbeitstag das mentale Abschalten hindert. Diese Bearbeitung berufsbezogener Aufgaben geht mit einer kontinuierlichen mentalen Beschäftigung mit berufsbezogenen Inhalten einher, die zudem auf Kosten der Erholungszeit geht (in der keine zusätzlichen Anforderungen an den Organismus gestellt werden sollten). Schliesslich werden dieselben Ressourcen wie jene während des Arbeitstages verbraucht (Sonntag, 2001). Folgt man dieser Argumentation, stellt die Erledigung berufsbezogener Aufgaben am Abend ein Risikofaktor für das Befinden dar.

Um diesen Gegenspieler zum psychologischen Abschalten, nämlich Arbeiten am Abend, besser abzugrenzen und die Bedeutung von Erholung und Ressourcenaufbau für das affektive und kognitive Befinden hervorzuheben, wird hier das Effort-Recovery-Modell von Meijman und Mulder (1998) vorgestellt. Es geht auf das Ausmaß eines persönlichen Aufwands zur Bewältigung von Anforderungen ein und betont die Bedeutung der Erholung und des Ressourcenaufbaus für den Organismus. Ausserdem besagt das Effort-Recovery-Modell, dass eine Arbeitsanstrengung kurzfristige Leistungsergebnisse, aber auch Belastungsreaktionen, wie negativen Affekt oder erhöhte Müdigkeit, mit sich bringt. Das Modell unterstreicht die Bedeutung ausreichender Erholungsmöglichkeiten, um sowohl Ressourcen aufzubauen als auch die Belastung auf den Pegel vor der Belastung zu reduzieren. Darüber hinaus sollte die

Erholung im Verhältnis zum Ausmaß der Arbeitsanforderungen stehen, das heisst, je länger die Anstrengung andauert, desto mehr Erholung ist danach erforderlich. Kann sich eine Person nach einer längeren Beanspruchung nicht ausreichend erholen, sind langfristige gesundheitliche Beeinträchtigungen wahrscheinlich (z. B. Åkerstedt, 2006; Devereux et al., 2011; Nixon et al., 2011).

Bezüglich der Erledigung arbeitsbezogener Aufgaben am Abend, was als persönlicher Arbeitsaufwand während der Freizeit angesehen wird, erachten Forschungsbefunde diese Ausführung arbeitsbezogener Aufgaben am Abend als Risikofaktor für das Befinden, da es den positiven Affekt, die Zufriedenheit und die Vitalität verringert, die Erholung verhindert, das allgemeine Befinden beeinträchtigt und auch das mentale Abschalten von der Arbeit am Abend erschwert (Bakker et al., 2013; Sonnentag, 2001; Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006; Volman et al., 2013). Darüber hinaus geht die Wiederaufnahme berufsbezogener Aufgaben am Abend mit einer erhöhten Müdigkeit einher (Garrick et al., 2018). Zusammenfassend lässt sich sagen, dass dieser zusätzliche Arbeitsaufwand am Abend, zwar die eigene Leistung zu steigern vermag, aber auch ein Risiko für die psychische und physische Gesundheit darstellt, da es die Erholung ausbremst und den Ressourcenaufbau hindert. Aus diesen Gründen sollte dieser vermieden werden.

Zusammengefasst haben wir gesehen, dass persönliche Ressourcen (z.B. Energie oder Unterstützung von anderen) hilfreich sind, um mit stressreichen Situationen umzugehen, was auf theoretischer Ebene mit dem COR-Model und dem W-HR Model aufgezeigt wurde. Des Weiteren wurde erklärt, dass Erholungszeiten notwendig sind, um diese Ressourcen aufzubauen, was beispielsweise mentales Abschalten von der Arbeit am Abend ermöglicht. Hier diene das kurz umschriebene Stressor-Detachment Model von Sonnentag und Fritz (2014) als theoretischer Ansatz. Abschliessend wurde, anlehnend an das Effort-Recovery Model von Meijman und Mulder (1998), darauf hingewiesen, dass die Erledigung

berufsbezogener Aufgaben als persönlicher Aufwand während der Freizeit auf Kosten der Erholung geht, da dieselben Ressourcen wie jene während des Arbeitstages verbraucht werden (Sonnentage, 2001). Somit wird kein Ressourcenaufbau ermöglicht und dieser zusätzliche Aufwand muss als Risikofaktor für das Befinden angesehen werden.

Im Rahmen dieser Dissertation werden nun spezifische Stressoren und ihre Auswirkungen auf das Befinden von Berufstätigen untersucht. Im ersten Teil wird auf arbeitsplatzbezogene Stressoren, nämlich unerledigte Aufgaben am Ende des Arbeitstages, eingegangen. Darüber hinaus wird erläutert, warum diese im Sinne des Befindens vermieden werden sollten. Da immer mehr Arbeitnehmer in ihrer Freizeit zusätzliche arbeitsbezogene Aufgaben mittels technologischer Hilfsmittel erledigen (Demerouti et al., 2014; Venkatesh & Vitalari, 1992), greifen wir dieses spezifische Verhalten im Zusammenhang mit unerledigten Aufgaben auf und beleuchten die Folgen für das Befinden. In einer zweiten Studie untersuchen wir den zusätzlichen abendlichen Arbeitsaufwand nochmals und untersuchen, welche Freizeitaktivitäten im Vorfeld ausgeführt werden können, um die negativen Auswirkungen des zusätzlichen abendlichen Arbeitens auf das Befinden abzumildern.

Eine Untersuchung von Arbeitsstress: Unfertige Aufgaben und zusätzliches Arbeiten am Abend

Unerledigte Aufgaben am Ende des Arbeitstages sind ein weit verbreiteter und typischer Stressor in der heutigen Arbeitswelt (Peifer et al., 2019). Laut Syrek et al. (2017, S.3) werden *unerledigte Aufgaben* wie folgt definiert: “tasks that the employee aimed to finish (or make certain progress), but which were left undone (or left in an unsatisfactory state) when the employee stopped working”. Zum Beispiel könnten am Ende des Arbeitstages Kundenanfragen unbeantwortet bleiben, Berichte nicht fertiggestellt oder E-Mails auf den nächsten Tag verschoben werden.

Der Ovsiankina- und der Zeigarnik-Effekt dienen als Erklärmechanismen dafür, warum unerledigte Aufgaben das Befinden beeinträchtigen. Während der Ovsiankina-Effekt (1928) besagt, dass unerledigte Aufgaben einen Drang zur Erledigung voraussetzen, besagt der Zeigarnik-Effekt, dass solange die Aufgaben unerledigt bleiben, automatisch aufgabenbezogene Gedanken aufkommen werden. Diese Kognitionen verdeutlichen die Nichtfertigstellung der Aufgaben und das Nichterreichen der gesetzten Ziele. Basierend auf den Theorien und experimentellen Ergebnissen von Zeigarnik (1927, 1938) aktivieren unerledigte Aufgaben aufgabenbezogene Kognitionen, die zu einem erhöhten Bewusstsein für das Unerledigte führen. Da diese unerledigten Aufgaben das Bedürfnis nach Erledigung implizieren und eine erhöhte affektive Erregung auslösen, entstehen Gefühle der Anspannung und Ermüdung, die, wie Sonntag und Bayer (2005) feststellen, zu einem beeinträchtigten Befinden führen.

Forschungsbefunde zeigen auf, dass Berufstätige, die mit unerledigten Aufgaben am Feierabend konfrontiert sind, sowohl während als auch nach dem Wochenende über ein beeinträchtigtes Befinden und über negativen Affekt berichten, über Schlafprobleme klagen, Schwierigkeiten haben, mental abzuschalten oder während des Wochenendes vermehrt grübeln (Peifer et al., 2019; Syrek & Antoni, 2014; Syrek et al., 2017; Weigelt & Syrek, 2017; Weigelt et al., 2019). Insgesamt zeichnet sich ein Bild ab, dass unerledigte Aufgaben eine Gefahr für das Befinden von Berufstätigen darstellen.

Das Ausführen berufsbezogener Aufgaben am Abend nach einem Arbeitstag ist heute ein weit verbreitetes Verhalten und stellt im Zusammenhang mit unerledigten Aufgaben ein Mittel dar, Leistungseinbußen während des Arbeitstages auszugleichen und die eigene Leistung zu fördern (Weigelt & Syrek, 2017). Da unerledigte Aufgaben ein zwanghaftes Bedürfnis nach Erledigung in sich bergen, stellt ein zusätzlicher Arbeitsaufwand am Abend eine Bewältigungsstrategie zur Minderung der durch unerledigte Aufgaben verursachten

Belastung dar, die darauf abzielt, die affektive Anspannung und das Grübeln zu reduzieren. Allerdings erschwert der abendliche Arbeitsaufwand das Einsetzen psychophysiologischer Erholungsprozesse (Meijman & Mulder, 1998), was auf Kosten der Erholungszeit, die der Entspannung von beruflichen Belastungen dienen soll (Sonnentag, 2003), geht.

Wie bereits im Rahmen dieser Dissertation dargelegt wurde, erläutert das Effort-Recovery-Model von Meijman und Mulder (1998), dass ein Arbeitsaufwand kurzfristig sowohl Leistungsergebnisse als auch Belastungsreaktionen, wie beispielsweise negativen Affekt oder erhöhte Müdigkeit, hervorbringt. Auch weist das Modell auf die Bedeutsamkeit ausreichender Erholungsmöglichkeiten hin, um Ressourcen aufzubauen und die Belastung bis auf das ursprüngliche Niveau, also jenes vor der Beanspruchung, zu reduzieren. Übertragen auf das abendliche Arbeiten bedeutet dies, dass die Wiederaufnahme arbeitsbezogener Aufgaben am Abend eine Beeinträchtigung des Befindens voraussetzt und so beispielsweise zu erhöhter Müdigkeit führen kann, da dieselben Ressourcen wie jene während des Arbeitstages aufgebraucht werden (Sonnentag, 2001).

In der ersten Studie dieser Dissertation untersuchten wir einen speziellen Fall von Spillover, bei dem sich Stressoren aus dem Arbeitsumfeld auf das Befinden von Berufstätigen am Abend auswirken. Wir erforschten, wie unerledigte Aufgaben am Ende des Arbeitstages mit Müdigkeit, Anspannung und Erleichterung zusammenhängen. Darüber hinaus interessierte uns, inwiefern die Wiederaufnahme von arbeitsbezogenen Aufgaben am Abend und die dabei empfundene Zielannäherung eine moderierende Wirkung auf das affektive Befinden haben. An dieser Stelle folgt nun die erste Studie, die Gegenstand dieser Dissertation ist.

Siehe Abschnitt:

Study 1, on unfinished tasks, supplemental evening work, goal progress and well-being

Eine Untersuchung von Arbeitsstress: Zusätzliches Arbeiten am Abend und Freizeitaktivitäten

Im Rahmen der ersten Studie wurde der Einfluss unfertiger Aufgaben auf das Befinden untersucht. Ausserdem gingen wir der Frage nach, inwiefern das zusätzliche abendliche Arbeiten und der dabei empfundene Fortschritt diese Beziehung moderieren. Hier zeigte sich, dass unfertige Aufgaben am Ende des Arbeitstages das Befinden beeinträchtigen und dass das zusätzliche Arbeiten am Abend diesen Effekt noch verstärkt. Erst nachdem die Teilnehmenden ein deutliches Mass der Zielannäherung verspürt hatten, stellte sich ein positiver Einfluss auf das Befinden ein. Wie auch Weigelt und Syrek (2017) bemerken, dass zwar die Ausführung zusätzlicher Arbeit am Abend eine hilfreiche Bewältigungsstrategie im Falle unfertiger Aufgaben darstellt, kommen wir aufgrund unserer Erkenntnisse ebenso zu dem Schluss, dass es sich um einen Risikofaktor für das Befinden handeln kann. Im Rahmen einer zweiten Studie gehen wir der Frage nach, wie die negativen Effekte der zusätzlichen Arbeit am Abend auf das Befinden abgeschwächt werden, dies beispielsweise durch eine vorherige Ausführung spezifischer Freizeitaktivitäten, was bislang unerforscht blieb. Die folgenden Abschnitte fassen die Gedankengänge zusammen, auf denen diese zweite Studie aufbaut.

Wie bereits im Rahmen dieser Dissertation erwähnt, sagt das Effort-Recovery-Modell von Meijman und Mulder (1998) aus, dass der gezeigte Aufwand im Falle arbeitsbezogener Aufgaben auf der einen Seite eine Leistungssteigerung ermöglicht, auf der anderen Seite aber weitere psychophysiologische Belastungsreaktionen voraussetzt (z.B. vermehrte Müdigkeit, erhöhte Herzfrequenz oder negativen Affekt). Ausreichende Erholungsmöglichkeiten sind daher nicht nur notwendig, um die Belastungen des Arbeitstages zu reduzieren, sondern auch dafür, Ressourcen zur Bewältigung zukünftiger Anforderungen aufzubauen. Bisherige Befunde belegen diesen negativen Effekt des abendlichen Bearbeitens berufsbezogener Aufgaben, nämlich ein verschlechtertes Allgemeinbefinden, geringere Vitalität und mentales

Abschalten von der Arbeit zur Schlafenszeit (Mojza et al., 2010; Sonnentag, 2001; Sonnentag & Natter, 2004).

Um langfristige negative Auswirkungen von der zusätzlichen Arbeit am Abend auf das Befinden zu verringern, ist eine regelmäßige Erholung von den Anforderungen des Arbeitstages wichtig (Sonnentag, 2003). Freizeitaktivitäten, die der Erholung dienen, sollten deshalb nicht nur eine mentale Ablenkung vom Arbeitsalltag (Yeung, 1996) ermöglichen, sondern auch den Aufbau verbrauchter Ressourcen erlauben. Freizeitaktivitäten können als zielgerichtete Strategie zur Bewältigung der Anforderungen des Arbeitsalltags und zur Förderung des eigenen Befindens bezeichnet werden.

Die Conservation of Resources Theory (Hobfoll, 1998), die bereits in dieser Dissertation erläutert wurde, dient als Erklärmechanismus für die Wirksamkeit von erholsamen Freizeitaktivitäten auf das Befinden. Dieser Theorie zufolge streben Menschen danach, sowohl ihre persönlichen Ressourcen (z. B. Energie, Aufmerksamkeit) zu erhalten als auch den aufgebrauchten Ressourcenspeicher wieder aufzufüllen beziehungsweise neue Ressourcen aufzubauen. Gleichzeitig zeigt sich, dass ein andauernder Verbrauch persönlicher Ressourcen den Regenerationsprozess verhindert und den Weg für langfristige Gesundheitsprobleme ebnet. Daher zielen Freizeitaktivitäten darauf ab, die während des Arbeitstages verbrauchten Ressourcen wieder aufzubauen. Somit können zukünftige Stresssituationen besser bewältigt werden.

Es gibt zahlreiche Arten von Freizeitaktivitäten, wobei einige Tätigkeiten einen gewissen Drang zur Ausübung implizieren (Sonnentag, 2001): Beispielhaft hierfür sind Haushaltsaufgaben oder die Kinderbetreuung, welche zwar eine zeitliche Ablenkung bieten, aber schlecht aufschiebbar sind und somit weniger zur Erholung beitragen. Sogenannte Low-Effort-Aufgaben (z.B. lesen, fernsehen), soziale Aktivitäten (z.B. Freunde treffen, telefonieren) oder körperliche Tätigkeiten (z.B. Joggen, Radfahren, Schwimmen), welche als Low-Duty-

Aktivitäten bezeichnet werden können (d.h. ein geringer Drang zur Ausübung), lösen dagegen eher psychophysiologischen Erholungsprozesse aus und tragen somit zur Erholung bei.

Was die Auswirkungen von Haushalts- und Kinderbetreuungstätigkeiten auf das Befinden betrifft, zeigen bisherige Forschungsergebnisse ein eher gemischtes Bild auf. Einerseits deuten Erkenntnisse darauf hin, dass es zu einem geringeren Erholungsgefühl, zu erhöhter abendlicher Müdigkeit sowie zu Schlafproblemen kommt und das mentale Abschalten am Ende des Arbeitstages erschwert wird (Åkerstedt et al., 2002; Grandey & Cropanzano, 1999; Oerlemans et al., 2014; ten Brummelhuis & Bakker, 2012b). Andererseits deuten weitere Befunde darauf hin, dass sich keinerlei Effekte auf das Befinden zeigen (z. B. Sonnentag & Zijlstra, 2006; ten Brummelhuis & Trougakos, 2014).

Aufgaben mit geringem Aufwand (z. B. ein Buch lesen oder fernsehen) sind durch Passivität gekennzeichnet, da sie wenig Aufwand erfordern und weniger Ressourcen verbrauchen (Sonnentag & Zijlstra, 2006). Auch hier zeichnet der aktuelle Forschungsstand kein einheitliches Bild ab. Zum einen zeigt sich, dass es an Tagen, an denen solche Aufgaben mit geringem Aufwand durchgeführt werden, keine Auswirkungen auf die abendliche Müdigkeit und das Erholungsgefühl oder auf das mentale Abschalten von der Arbeit gibt (z.B. Oerlemans et al., 2014; Rook & Zijlstra, 2006; Sonnentag & Bayer, 2005; Sonnentag & Zijlstra, 2006). Zum anderen belegen Studien ein verbessertes Befinden und die Förderung des mentalen Abschaltens an Tagen, an denen Aufgaben mit geringem Aufwand durchgeführt werden (z. B. Sonnentag, 2001; ten Brummelhuis & Bakker, 2012b).

Das Erfahren sozialer Unterstützung durch Freunde oder Partner ist erwiesenermaßen ein wichtiges Hilfsmittel zur Stressbewältigung (siehe Bodenmann, 1995; Viswesvaran et al., 1999). Die Mehrheit der Forschungsbefunde zeigt positive Auswirkungen sozialer Freizeitaktivitäten auf das Befinden. An Tagen, an denen soziale Aktivitäten ausgeführt werden, berichten Berufstätige über ein besseres Befinden und über verminderte Müdigkeit

sowie weniger Erschöpfung, sie fühlen sich erholter und sind positiver gestimmt (z.B. Sonnentag, 2001; Sonnentag & Zijlstra, 2006; ten Brummelhuis & Bakker, 2012b; ten Brummelhuis & Trougakos, 2014; Van Hooff et al., 2011).

Es ist allgemein bekannt, dass sich sportliche Betätigung positiv auf Geist und Körper auswirkt. Bisherige Forschungsergebnisse zu Arbeitsstress und sportlichen Freizeitaktivitäten bestätigen mehrheitlich diesen positiven Effekt von Sport auf das Befinden: ein gesteigertes allgemeines Befinden, eine erhöhte positive Stimmung, ein verbessertes mentales Abschalten und ein geringerer Bedarf nach Erholung am Abend (z. B. Feuerhahn et al., 2014; Sonnentag, 2001; Sonnentag & Bayer, 2005; Sonnentag & Zijlstra, 2006). Allerdings sind die Ergebnisse hinsichtlich des Müdigkeitsgefühls gemischt (Garrick et al., 2018; Rook & Zijlstra, 2006; Sonnentag & Bayer, 2005; ten Brummelhuis & Trougakos, 2014). Obwohl während der sportlichen Betätigung zusätzliche Energie benötigt wird, werden andere Ressourcen als jene während des Arbeitstages verbraucht (Sonnentag & Zijlstra, 2006), so dass sich Sport trotz zusätzlicher Anstrengung als ein wirksames Mittel zur Stressbewältigung erweist.

Grob zusammengefasst sollten Haushalts- und Kinderbetreuungsaufgaben den Aufbau neuer Ressourcen erschweren, da sie oftmals als Verpflichtung wahrgenommen und kaum aufgeschoben werden können, was sich daher eher negativ auf das Befinden auswirkt. Im Gegensatz dazu wird angenommen, dass soziale und sportliche Aktivitäten wie auch solche mit geringem Aufwand eine kognitive Ablenkung darstellen und zum Aufbau neuer Ressourcen beitragen, was wiederum das Befinden positiv beeinflusst.

Um dieses Wissen über Freizeitaktivitäten mit den Ergebnissen der ersten Studie dieser Dissertation zu verknüpfen, stellt sich möglicherweise folgende Frage: Können Freizeitaktivitäten, die *vor* der zusätzlichen abendlichen Arbeit durchgeführt werden, zum Aufbau von Ressourcen beitragen und somit deren negative Auswirkungen auf das Befinden (wie bereits in der zuvor präsentierten Untersuchung nachgewiesen) abschwächen? Obwohl

die Konzepte der Erholung und der Freizeitaktivitäten schon seit Jahren untersucht werden, konzentrieren sich die entsprechenden Studien hauptsächlich auf die Auswirkungen auf das Befinden am Ende des Arbeitstages. Ausserdem, wie in der ersten Studie dieser Dissertation aufgezeigt wurde, konnte belegt werden, dass das zusätzliche Arbeiten am Abend ein Risikofaktor für das Befinden darstellt. Interessanterweise hat es die Forschung bisher ausgelassen, beide Themen, nämlich Freizeitaktivitäten und zusätzliches Arbeiten am Abend, in Bezug auf das Befinden kombiniert zu untersuchen. In einer zweiten Studie sind wir deswegen dieser Forschungsfrage nachgegangen, indem wir eine moderierende Rolle der Freizeitaktivitäten, die *vor* der zusätzlichen Arbeit am Abend ausgeübt werden, auf das Befinden untersucht haben. Die Erkenntnisse aus dieser Untersuchung ermöglichen es, sowohl das Phänomen der abendlichen Arbeit und deren Einfluss auf das Befinden noch präziser zu verstehen, als auch einen Beitrag zum jetzigen Forschungsstand zu leisten und Empfehlungen zu formulieren.

Siehe Abschnitt:

Study 2, on supplemental evening work, leisure activities and well-being

Der Crossover von berufsbezogener Belastungen

Aus den ersten beiden Studien haben wir die Erkenntnis gewonnen, dass sowohl Stressoren aus dem Arbeitsumfeld, wie beispielsweise unfertige Aufgaben, das Befinden am Ende des Arbeitstages beeinträchtigen, als auch das abendliche Arbeiten ein Risikofaktor für das Befinden darstellen. Aus den Untersuchungsergebnissen zu geeigneten Bewältigungsstrategien folgerten wir, dass erst ein spürbares Vorankommen während des abendlichen Arbeitens (Studie 1) sowie sportliche Freizeitaktivitäten vor der abendlichen Arbeit (Studie 2) die Belastungen mindern und sich somit positiv auf das Befinden am Ende des Tages auswirken. In Anlehnung an das zu Beginn der Dissertation erwähnte Spillover-Crossover Modell (Bakker & Demerouti, 2013) zeigen diese beide Studien einen intraindividuellen Einfluss der Stressoren, die der Arbeitswelt angehören, auf das Befinden am Ende des Tages, was Teil der Privatsphäre ist. Da aber das Spillover-Crossover Modell auch verdeutlicht, dass sich dieser intraindividuelle Stress auf nahestehende Personen übertragen kann (und dieser somit nicht ausschliesslich bei der gestressten Person bleibt), mutiert der Stress zu einem kollektiven Phänomen. Aus diesem Grund soll an dieser Stelle dieser Crossover-Prozess näher beleuchtet werden, um die Auswirkungen berufsbezogener Stressoren besser eingrenzen zu können.

Was besagt das Spillover-Crossover Modell von Bakker und Demerouti (2013) zusätzlich zu dem bereits erörterten intraindividuellen Prozess der Stressübertragung? Wie wirkt sich der eigene Stress auf nahestehende Personen aus und wie können diese die Stressbewältigung unterstützen? Genau dieses Unterstützungsverhalten soll in einer dritten Studie beleuchtet werden, indem der Einfluss der eigenen arbeitsbedingten Stressoren hinsichtlich des Unterstützungsverhaltens auf Paarebene untersucht wird. Zum besseren Verständnis folgt, nach einem kurzen theoretischen Überblick über die Crossover-Prozesse bei Paaren, eine detaillierte Beschreibung der dritten Studie.

Das Spillover-Crossover Modell (Bakker & Demerouti, 2013) beschränkt sich nicht nur auf die zu Beginn erwähnte intraindividuelle Übertragung, sondern berücksichtigt auch einen personenübergreifenden Übertragungsprozess von Belastungen zwischen Personen innerhalb eines gleichen Umfelds, wie es beispielsweise der Fall zwischen Partnern in einer Beziehung ist (Bolger et al., 1989). Hobfoll et al. (2018, S. 108) definieren den Crossover wie folgt: "a dyadic interindividual transmission of psychological states and experiences". Des Weiteren deutet Westman (2001) an, dass der Crossover von negativer oder positiver Natur sein kann.

Erklärungsansätze gehen darauf ein, weshalb es zu einer Übertragung von Belastungen der einen Person auf die andere kommt, wie es beispielsweise bei Beziehungspartnern der Fall sein kann (was im dritten Manuskript dieser Dissertation behandelt wird). Bei einem direkten Crossover ebnet die emotionale Nähe zu nahestehenden Personen und die daraus einhergehende Empathie den Weg für eine Übertragung von affektiven Zuständen und erlebten Belastungen auf andere Personen (Westman, 2001). Beim indirekten Crossover jedoch geht es eher um die Wahrnehmung des Partnerverhaltens (z. B. weniger positive Interaktionen oder vermehrtes Rückzugsverhalten), was als Zeichen von Belastung gedeutet werden und weswegen der Partner das eigene Verhalten an den anderen anpassen kann (Bakker & Demerouti, 2013; Li et al., 2021).

Bisherige Forschungsbefunde deuten darauf hin, dass sich die Belastung einer Person auf das psychische und physiologische Befinden bei anderen auswirkt, wie es der Fall bei Burnout und Erschöpfung ist (Bakker et al., 2008; Bakker & Schaufeli, 2000; Demerouti et al., 2005), sowie auch bei Konflikten zwischen Arbeit und Familie (Westman & Etzion, 2005), bei gesundheitlichen Beschwerden (Gorgievski-Duijvesteijn et al., 2000; Shimazu et al., 2009), und bei Ängsten (Westman et al., 2004). Auch konnte ein Einfluss auf das Befinden des Partners nachgewiesen werden (Bakker et al., 2009). Kombiniert man beide Prozesse (Spillover und Crossover), so tritt zuerst der Spillover und dann der Crossover auf.

Zusammenfassend lässt sich sagen, dass Arbeitsanforderungen oftmals als stressig empfunden werden und der gestresste Berufstätige den Stress aus dem Arbeitskontext in sein privates Umfeld mitnimmt (Spillover), wo sein Verhalten und sein Befinden die Interaktionen mit anderen, wie beispielsweise mit dem Beziehungspartner, beeinflussen wird (Crossover).

Die dyadische Stressbewältigung – Unterstützungsverhalten in einer Beziehung

Wie eingangs dieses Abschnittes zu Crossover-Prozessen gesagt wird, soll in den kommenden Zeilen näher auf die Unterstützung aus dem eigenen sozialen Umfeld eingegangen werden, da die jahrzehntelange Forschung sie als effektives Mittel zur Bewältigung von Stress ansieht (z.B. Viswesvaran et al, 1999). Was gibt es also noch zu erforschen, wenn es bereits soviel Studien dazu gibt? Interessanterweise und wie in den kommenden Abschnitten erklärt wird, konzentriert sich die Forschung eher auf den Erhalt und weniger auf das Geben sozialer Unterstützung (Devoldre et al., 2010; Verhofstadt et al., 2010). Das heisst, es wurde näher erforscht, welcher Einfluss auf das eigene Befinden besteht, wenn Unterstützung erhalten wird, und bislang missachtet, welche Faktoren das Geben von Unterstützung beeinflussen. Um letztere Forschungsfrage zu beantworten, soll zunächst das Konzept der sozialen Unterstützung eingehender erläutert werden, indem es spezifisch auf berufstätige Paare angewandt wird. Hier wird insbesondere untersucht, inwiefern sich der Einfluss von berufsbezogenen Stressoren auf das Geben sozialer Unterstützung bei berufstätigen Paaren auswirkt (Studie 3). Dank dieser Studie zum Crossover von Stress bei berufstätigen Paaren und ergänzend zu den ersten beiden Studien zu Spillover-Prozessen bei Einzelpersonen, sind wir in der Lage, unser Verständnis für die Bewältigung von heimgebrachtem Arbeitsstress zu erweitern.

Seit Jahrzehnten nimmt das Konzept der sozialen Unterstützung einen wichtigen Platz ein, und Studien haben die weitgehend positive Wirkung sozialer Unterstützung in der Beziehung zwischen Stressoren und Belastung hervorgehoben (für einen Forschungsüberblick

siehe Viswesvaran et al., 1999). Auch wenn die Vielschichtigkeit sozialer Unterstützung schwer zu erfassen ist, wurde das Konzept der sozialen Unterstützung intensiv erforscht. Es kristallisieren sich verschiedene Stile heraus, wie beispielsweise die am häufigsten genannten Formen der emotionalen Unterstützung (z. B. Verständnis und Einfühlungsvermögen) sowie der instrumentellen Unterstützung (z. B. Übernahme von Aufgaben). Auf beide Stile wird in dieser Dissertation näher eingegangen.

Soziale Unterstützung kann aus verschiedenen Quellen stammen, sei es von Personen aus dem beruflichen Kontext, wie beispielsweise von Vorgesetzten oder Kollegen, aber auch aus dem privaten Kontext, wie beispielsweise von Freunden, Familienangehörigen oder Beziehungspartnern (Hammer et al., 2016). Auch wenn es vorerst zu selbstständigen Stressbewältigungsversuchen kommt, stellt der Partner oder die Partnerin meist die erste soziale Anlaufstelle für eine gemeinsame Stressbewältigung dar (Bodenmann, 2005). Diese Unterstützung wird als besonders wertvoll gewertet (Coyne & DeLongis, 1986). Mit dem Konzept des Dyadischen Copings, was auf dem Systemic Transactional Model (STM) von Bodenmann (1995) basiert, definiert er diese besondere Form der sozialen Unterstützung zwischen Beziehungspartnern folgendermaßen: "process in which the stress signals of one partner and the coping reactions of the other partner to these signals [...] are taken into consideration" (Bodenmann, 1997, S. 139). Ziel der gegenseitigen Unterstützung ist es, durch empathische Prozesse das Stressempfinden sowohl auf individueller als auch auf Paarebene zu mildern (Falconier et al., 2015; Morelli et al., 2015) und damit das Gleichgewicht in der Beziehung aufrechtzuerhalten und die Beziehungszufriedenheit sowie das Befinden beider Partner zu fördern (Bodenmann, 2005).

Bodenmann (1995), der sich für das Befinden von Beziehungspartnern interessiert, erweitert die Stresstheorie von Lazarus und Folkman (1984) zum Systemic Transactional Model, indem er den Schwerpunkt von einer individualistischen Betrachtungsweise auf eine

systemische Sichtweise verlagert. Bei dieser Sichtweise sind Individuen (wie beispielsweise Beziehungspartner) in ein soziales Umfeld eingebettet und interagieren mit den Akteuren dieses Umfelds. Damit begründet Bodenmann das Konzept des Dyadischen Copings und hebt die gegenseitige Beeinflussung des Befindens bei Partnern hervor. Dieser Theorie zufolge teilt Partner A das eigene Stressempfinden durch verbale und nonverbale Zeichen mit, die Partner B wahrnimmt, deutet und anschliessend reagiert. Darüber hinaus erklärt Bodenmann (2005), dass Partner B aufgrund der emotionalen Nähe die inneren Zustände von A nachempfinden und unterstützende Verhaltensweisen an den Tag legen kann. Ebenso vorstellbar ist, dass Partner B sich von den emotionalen Zuständen von A nicht betroffen fühlt. In Bezug auf das bereits erwähnte Spillover-Crossover Modell (Bakker & Demerouti, 2013) lässt sich sagen, dass der Stress, den Partner A aus einem Umfeld in ein anderes Umfeld mitbringt, das Verhalten des Partners B prägt. Partner B wiederum empfindet durch empathische Prozesse die inneren Zustände von Partner A nach, was einem Crossover von einer Person auf eine andere gleichkommt. Schliesslich bemühen sich die betroffenen Beziehungspartner, den Gestressten bei der Bewältigung zu unterstützen, sobald sich eine Schwäche erkennen lässt (Bodenmann, 1997, 2000). Die Erkenntnis der Belastungen des anderen löst unterstützende Verhaltensweisen aus.

Bodenmann's (1995) Konzept des Dyadisches Copings, die gegenseitige Stressbewältigung bei Beziehungspartnern, wird in positives dyadisches Coping (z.B. emotionale und delegative Unterstützung) und negatives dyadisches Coping (z.B. feindselige, ambivalente oder oberflächliche Unterstützung) unterteilt. Die Unterteilung des positiven dyadischen Copings in emotionale und delegative Unterstützung überschneidet sich weitgehend mit den in der wissenschaftlichen Fachliteratur zu Stress bekannten Begriffen der emotionalen und instrumentellen Unterstützung (Cohen & Wills, 1985). Mit emotionaler Unterstützung wird eine Regulierung von Emotionen durch empathisches Zuhören und

Verständnis erreicht, während mit instrumenteller Unterstützung praktische Handlungen wie beispielsweise die Übernahme von allgemein anfallenden Aufgaben gemeint ist (Simpson et al., 2007). Darüber hinaus legt das STM fest, dass erlebter Stress oft nicht klar kommuniziert wird, was bedeutet, dass die verbalen oder nonverbalen Signale, auf denen die Unterstützung beruht, fehlinterpretiert werden können, weshalb dysfunktionale Unterstützung auftreten kann. Diese sogenannte negative Unterstützung, die beispielshalber auf fehlende persönliche Ressourcen oder auf mangelndes Interesse an der anderen Person zurückgeführt werden kann (Bodenmann, 2000; Verhofstadt et al., 2011), äußert sich in unmotivierter Unterstützung oder sogar in feindseligem Verhalten (z.B. Kritik am Bewältigungsstil des Partners), in ambivalenter Unterstützung oder im Rückzugsverhalten.

Das Geben sozialer Unterstützung und Arbeitsstressoren: Ein dyadischer Ansatz

Basierend auf den theoretischen Überlegungen zu sozialer Unterstützung bei Paaren, gehen wir nun im Rahmen einer dritten Studie der Frage nach, wie sich Paare, welche von Berufsstress berichten, gegenseitig unterstützen. Die folgenden Abschnitte fassen die Gedankengänge kurz zusammen, auf denen diese dritte Studie aufbaut.

Um den gestressten Partner zu unterstützen, müssen genügend persönliche Ressourcen (z.B. Aufmerksamkeit, Energie, Zeit) zur Verfügung stehen, was bei doppelverdienenden Paaren eine besondere Herausforderung darstellt, da sie gleichzeitig berufliche als auch private Anforderungen bewältigen müssen (Story & Repetti, 2006). Anhand der beiden theoretischen Ansätze, nämlich der Conservation of Resources theory (Hobfoll, 1998) und dem darauf aufbauenden Work-Home Resources Model (W-HR Model; ten Brummelhuis & Bakker, 2012a) kann erklärt werden, warum das Unterstützungsverhalten von persönlichen Ressourcen abhängt. Diesem Modell zufolge zehren Stressoren bei der Arbeit (z.B. Zeitdruck) an den persönlichen Ressourcen des Arbeitnehmenden (z.B. Selbstwert, Energie). Dies wiederum

prägt das Verhalten zu Hause und die Erfüllung der privaten Rolle wird erschwert (Rothbard, 2001). Beispielshalber kann der gestresste Arbeitnehmende nicht oder nicht genügend auf die Bedürfnisse des Partners eingehen. Auch das Konzept der *psychological availability* (Danner-Vlaardingerbroek et al., 2012) geht davon aus, dass die eigene psychische Verfügbarkeit für die Bedürfnisse des Partners von den persönlichen Ressourcen abhängt. Zusammenfassend lässt sich sagen, dass gestresste Arbeitnehmer weniger auf die Bedürfnisse des Partners eingehen, da ihre persönlichen Ressourcen durch die beruflichen Anforderungen erschöpft sind.

Hinsichtlich der Frage, wie sich die beruflichen Stressoren auf das eigene Unterstützungsverhalten auswirken, haben Studien gezeigt, dass Arbeitsanforderungen mehr Rückzugsverhalten oder Kritik am Partner auslösen (Bodenmann et al., 2004; Schulz et al., 2004) und mit weniger emotionaler Unterstützung für den Partner zusammenhängen (ten Brummelhuis & Greenhaus, 2018). Aus der Partnerperspektive bestätigen weitere Untersuchungen, dass gestresste Berufstätige mehr emotionale Unterstützung vom Beziehungspartners erhalten (Hilpert et al., 2018; Iida et al., 2008; Repetti, 1989).

Ferner steht die Frage im Raum, ob sich Frauen und Männer im Unterstützungsverhalten unterscheiden. Geschlechterstereotype prägen das soziale Bild von Frauen und Männern (Eagly, 2009). So wird oft angenommen, dass Frauen emotionaler und sozial orientierter als Männer sind (Eagly et al., 2019). Bezüglich des Unterstützungsverhaltens verdeutlicht die *marital support gap hypothesis*, dass Frauen mehr Unterstützung als Männer geben (Cutrona, 1996) und Frauen die Unterstützung seitens ihres männlichen Partners als weniger hilfreich beschreiben (Belle, 1982). Ausserdem wird davon ausgegangen, dass Frauen den Partner eher emotional während Männer eher instrumentell unterstützen (Verhofsstadt et al., 2007). Befunde (Neff & Karney, 2005; Trobst et al., 1994) belegen, dass Frauen ihren gestressten Partner eher positive Unterstützung geben, während Falconier und Kuhn (2019)

darauf hinweisen, dass Männer ihre gestressten Partnerinnen eher negativ unterstützen. Des Weiteren äussern ten Brummelhuis und Greenhaus (2018), dass sich die eigenen Arbeitsanforderungen negativ auf das Unterstützungsverhalten bei Männern nicht aber bei Frauen auswirken. Auch zeigt sich, dass Männer im Vergleich zu Frauen an stressreichen Tagen vermehrt negatives Unterstützungsverhalten wie Rückzugsverhalten zeigen (Schulz et al., 2004). Unter Berücksichtigung dieser Punkte kann angenommen werden, dass Frauen trotz des eigenen Stresses ihre Partner eher positiv und Männer ihre Partnerinnen eher negativ unterstützen.

Zusammenfassend lässt sich sagen, dass berufstätige Paare mit den Anforderungen des Berufs- und des Privatlebens zu kämpfen haben und jeweils bemüht sind, ihre Partner zu unterstützen, um deren Befinden zu stärken und um die Zufriedenheit in der Beziehung zu gewährleisten. Berufliche Stressfaktoren stellen jedoch eine Bedrohung für das harmonische Funktionieren einer Beziehung dar, da persönliche Ressourcen aufgebraucht werden. Daher sind Partner auf der einen Seite weniger in der Lage, sich auf die Bedürfnisse des anderen einzulassen, weswegen dysfunktionale Verhaltensweisen verstärkt auftreten. Auf der anderen Seite profitieren gestresste Arbeitnehmende von der positiven Unterstützung durch ihren Partner, was verdeutlicht, dass die soziale Unterstützung innerhalb der Beziehung eine wertvolle Ressource darstellt. Aus den genannten Ergebnissen lässt sich schließen, dass Frauen trotz ihres eigenen Berufsstressses ihrem Beziehungspartner eher positive und Männer ihrer Beziehungspartnerin eher negative Unterstützung geben.

Im Rahmen dieser Dissertation und insbesondere in der dritten Studie wird erforscht, wie sich berufliche Stressoren auf die Art und Weise auswirken, inwiefern sich berufstätige Paaren gegenseitig unterstützen. Diese Untersuchung erklärt sich vor allem deshalb, da das *Geben* sozialer Unterstützung (im Vergleich zum *Erhalt* sozialer Unterstützung) ein bisher kaum untersuchter Forschungsaspekt ist (Verhofstadt et al., 2010). Insbesondere konzentrieren

wir uns auf zwei verschiedene berufliche Stressoren, nämlich auf *Zeitdruck* und auf *effort-reward imbalance*, also auf ein Ungleichgewicht zwischen gezeigter Leistung und erhaltener Belohnung, da bei Schweizer Berufstätigen diese beiden zu den am häufigsten genannten Stressoren gehören (Grebner et al., 2010). Schliesslich wollen wir geschlechterspezifische Unterschiede beim Geben sozialer Unterstützung beleuchten, indem wir untersuchen, ob sich Männer und Frauen in ihrem Unterstützungsverhalten unterscheiden.

Siehe Abschnitt:

Study 3, on work-stressors and provided social support

Diskussion

Ziel dieser Dissertation ist es, die Auswirkungen von Arbeitsstressoren auf das Befinden und die dazugehörigen Bewältigungsstrategien aufzuzeigen, was mittels zweier Tagebuchstudien und einer Crosssectional-Studie umgesetzt wurde. Im Rahmen der ersten Tagebuchstudie griffen wir unfertige Aufgaben am Ende des Arbeitstages auf, die als weitverbreitete Stressoren gelten (Peifer et al., 2019), deren Auswirkungen aber noch weiterer Erforschung bedürfen (Syrek & Antoni, 2014). Da immer mehr Personen ausserhalb der Arbeitszeiten mittels technologischer Hilfsmittel berufsbezogene Aufgaben ausführen (Demerouti et al., 2014; Venkatesh & Vitalari, 1992), gingen wir der Frage nach, welche Rolle dieses abendliche Arbeiten und das damit verbundene Vorankommen bezüglich der eigenen Ziele spielt. Um dieses Arbeitsverhalten, nämlich die abendliche Ausführung berufsbezogener Aufgaben noch besser zu verstehen, folgte in einer zweiten Studie eine genauere Untersuchung zu dessen Auswirkungen auf das Befinden. Hier wurde ein besonderes Augenmerk auf das Konzept der Erholung gelegt. Erforscht wurde, inwieweit negative Auswirkungen durch zuvor erledigte Freizeitaktivitäten abgemildert werden können, was die bisherige Forschung nicht miteinbezogen hatte. Während sich schliesslich diese beiden Tagebuchstudien auf einen Spillover-Effekt von arbeitsbezogenen Stressoren auf das Befinden am Ende des Tages konzentrierten, untersuchten wir in einer Crosssectional-Studie den Crossover von Stress bei berufstätigen Paaren. Hier lag der Fokus nicht nur auf dem Einfluss von Arbeitsstressoren auf das eigene Unterstützungsverhalten, sondern auch auf dem Unterstützungsverhalten des Partners. Dabei wurde darauf geachtet, spezifische Einflussfaktoren auf das Geben sozialer Unterstützung zu untersuchen, was laut Verhofstadt et al. (2010) noch intensiver Forschung bedarf. Zusammengefasst lässt sich sagen, dass die drei Studien dieser Dissertation einen einzigartigen Mehrwert für die Stressforschung bieten, da sie auf diese bislang eher ausser Acht gelassenen Aspekte eingehen.

In den folgenden Abschnitten werden die Erkenntnisse aller drei Studien aufgegriffen und besprochen. Es folgen Überlegungen zu den Stärken und Schwächen dieser Studien. Auch sollen hier theoretische und praktische Implikationen dieser Ergebnisse, gefolgt von einem persönlichen Ausblick, thematisiert werden.

Bewältigung von Arbeitsstress im privaten Umfeld: Erkenntnisse aus drei Studien

Im ersten Teil dieser Dissertation haben wir uns die Auswirkungen von arbeitsbedingten Belastungen genauer angesehen, indem wir untersucht haben, wie sich Arbeitsstressoren, wie unerledigte Aufgaben oder die Ausführung zusätzlicher berufsbezogener Aufgaben am Abend, auf unser Befinden auswirken.

Unseren Hypothesen zufolge wirken sich unerledigte Aufgaben am Ende des Arbeitstages auf das Befinden vor dem Schlafengehen dahingehend aus, dass diese Aufgaben zu erhöhter Anspannung führen. Dies belegen auch frühere Forschungsergebnisse (z.B. Peifer et al., 2019; Syrek & Antoni, 2014). Auf theoretischer Ebene steht dies im Einklang mit dem Ovsiankina-Effekt, der auf ein inneres Bedürfnis hinweist, solche unerledigten Aufgaben fertigzustellen. Auch deckt es sich mit dem Zeigarnik-Effekt, der die ständige kognitive Beschäftigung mit diesen unerledigten Aufgaben und die damit verbundene wahrgenommene Anspannung beschreibt. Diese erste Studie veranschaulicht die für das Befinden benachteiligende Rolle unerledigter Aufgaben.

Ein mögliches Mittel, um diese Belastung unfertiger Aufgaben zu vermindern, scheint die Erledigung berufsbezogener Aufgaben am Abend. Im Rahmen dieser Dissertation untersuchten wir daher die kurzfristigen Auswirkungen eines solchen Arbeitsverhaltens während der Freizeit. Dabei zeigte sich, dass Angestellte, welche den Arbeitstag mit unfertigen Aufgaben beendeten und daher abends zusätzlich berufsbezogene Aufgaben ausführten, sich noch angespannter und müder fühlten. In Anlehnung an das Effort-Recovery Model (Meijman

& Mulder, 1998) stellt die Wiederaufnahme arbeitsbezogener Aufgaben einen zusätzlichen Aufwand dar, bei dem dieselben Ressourcen wie jene während des Arbeitstages verbraucht werden (Sonnentag, 2001) und somit auf Kosten der Erholung während der Freizeit geht (Sonnentag & Frese, 2003).

Im Rahmen einer zweiten Studie zu diesem abendlichen Arbeitsverhalten, die bei Lehrpersonen durchgeführt wurde, konnte aufgezeigt werden, dass an Tagen, an denen die Lehrkräfte abends arbeiteten, sie sich weniger erholt fühlten und weniger in der Lage waren, vor dem Schlafengehen mental abzuschalten. Allerdings waren sie nicht müder. Diese Ergebnisse stehen im Einklang mit früheren Erkenntnissen der Erholungsforschung (z.B. Garrick et al., 2018; Mojza et al., 2010; Sonnentag & Natter, 2004; ten Brummelhuis & Trougakos, 2014; Volman et al., 2013). Berücksichtigt man die Resultate dieser beiden Studien, so zeigt sich, dass die zusätzliche Ausführung berufsbezogener Aufgaben am Abend im privaten Umfeld einen Risikofaktor für das Befinden darstellt.

Im Rahmen der ersten Studie haben wir auch getestet, welche Rolle das Vorankommen beim Erreichen der gesetzten Ziele spielt. Unserer Ergebnisse brachten hervor, dass Berufstätige, an Tagen, an denen sie während der zusätzlichen Arbeit am Abend ein Vorankommen hinsichtlich der eigenen Zielsetzungen erlebten, sich weniger angespannt aber nicht weniger müde fühlten. Einerseits zeigt sich hier, dass der zusätzliche Arbeitsaufwand am Abend die bereits negativen Auswirkungen unerledigter Aufgaben zusätzlich verstärken. Andererseits stellt sich heraus, dass das Gefühl des Vorankommens hinsichtlich der eigenen Zielsetzungen diese negativen Auswirkungen mildert. Frühere Forschungen haben gezeigt, dass ein solches Vorankommen hinsichtlich der eigenen Zielsetzungen mit einem erhöhten positiven und weniger mit einem negativen Affekt zusammenhängt (z.B. Harris et al., 2003; Klug & Maier, 2014; Oatley & Johnson-Laird, 1987; Wiese & Freund, 2005). Um die Rolle dieses Gefühls der Zielannäherung während der abendlichen Arbeit besser zu verstehen, haben

wir das Gefühl der *Erleichterung* (einer Facette des positiven Befindens) untersucht, dem die Forschung bislang weniger Beachtung geschenkt hat (Lazarus, 1991). Unsere Ergebnisse zeigen, dass es nur im Falle erlebter Zielannäherung zur Erleichterung kommt, was bedeutet, dass das Befinden positiv beeinflusst wird.

Indem wir ausserdem einen in der Erholungsforschung bisher eher vernachlässigten Aspekt beleuchteten (d.h., den Aspekt der Auswirkungen von Freizeitaktivitäten, die nicht nur *nach* offiziellem Arbeitsschluss, sondern auch *vor* einem zusätzlichen Arbeitsaufwand am Abend durchgeführt werden), untersuchten wir, ob die bereits erwähnten negativen Auswirkungen der abendlichen Arbeit auf das Befinden durch diese Freizeitaktivitäten abgeschwächt werden können. In unserer zweiten Studie, die bei Lehrpersonen durchgeführt wurde, beeinflussten nur sogenannte soziale und sportliche Freizeitaktivitäten in Kombination mit zusätzlicher Abendarbeit das Befinden.

In Bezug auf soziale Freizeitaktivitäten stellten wir fest, dass sich Lehrpersonen an Tagen, an denen sie vor der abendlichen Arbeit soziale Kontakte pflegten, abends noch weniger erholt fühlten als an Tagen, an denen sie keine sozialen Kontakte pflegten. Wenn beim Pflegen sozialer Kontakte (z.B. beim Treffen mit Freunden oder beim Telefonieren) auch über die Arbeit als wichtigen Lebensbereich gesprochen wird, ist ein zusätzlicher Verbrauch persönlicher Ressourcen vorstellbar, da den Gesprächspartnern aufmerksam zugehört wird, um die Interaktion aufrechtzuerhalten, was schliesslich der Erholung entgegenwirkt. In diesen sozialen Interaktionen können Personen versucht sein, ihre wahren Gefühle zu verbergen, um ihr Gesicht zu wahren, indem sie ihre Fähigkeiten im *surface emotional acting* einsetzen. Dies bedarf nicht nur eines zusätzlichen persönlichen Aufwands, was eigene Ressourcen verbraucht, sondern stellt auch einen Risikofaktor für das Befinden dar (Hülshager & Schewe, 2011), was auch indirekt mit einem erhöhten Bedarf an Erholung zusammenhängt (Xanthopoulou et al., 2017). Zusammenfassend lässt sich sagen, dass soziale Freizeitaktivitäten das Potenzial haben,

für unser Befinden förderlich zu sein, allerdings scheinen sie sich weniger mit einem zusätzlichen Arbeitsaufwand am Abend vereinbaren zu lassen.

Was die sportlichen Freizeitaktivitäten anbelangt, so haben wir einen moderierenden Effekt dieser sportlichen Aktivitäten auf die Beziehung zwischen der zusätzlichen Arbeit am Abend und dem Befinden festgestellt. Das bedeutet, dass Lehrpersonen, an Tagen, an denen sie vor der zusätzlichen Arbeit am Abend Sport treiben, vor dem Schlafengehen besser von der Arbeit abschalten können. Weil das Unterrichten eher mentale als körperliche Ressourcen verbraucht, ermöglicht die körperliche Betätigung eine mentale Abkopplung, indem sie insbesondere kognitive Ressourcen schont und somit eine aktive Ablenkung von den täglichen Arbeitsaufgaben bietet (Yeung, 1996).

Zusammenfassend lässt sich sagen, dass sich die zusätzliche Arbeit am Abend negativ auf das Befinden auswirkt. Die untersuchten Freizeitaktivitäten ermöglichten es größtenteils nicht, genügend persönliche Ressourcen aufzubauen, um die negativen Auswirkungen der zusätzlichen Abendarbeit auf das Befinden abzuschwächen. Dennoch scheint die sportliche Betätigung hilfreich zu sein, die Arbeitsbelastung zu reduzieren. Sie hilft vor allem dabei, mental abzuschalten, wenn abends berufsbezogene Aufgaben erledigt werden.

Zusätzlich zu diesen beiden Studien zum Spillover von arbeitsbedingtem Stress haben wir untersucht, inwieweit auch nahestehende Personen davon betroffen sein können (Crossover). Dazu haben wir bei berufstätigen Paaren untersucht, wie berufsbezogene Stressoren das Geben sozialer Unterstützung beeinflussen, da sich einerseits die soziale Unterstützung als wirksames Mittel in der Stressbewältigung erwiesen hat (Viswesvaran et al., 1999), andererseits das Geben sozialer Unterstützung in der Forschung bislang eher unerforscht blieb (e.g., Verhofstadt et al., 2010). In dieser dritten Studie fanden wir heraus, dass Arbeitnehmende, die unter einer ausgeprägteren Arbeitsbelastung leiden, durch den Partner mehr positive Unterstützung, d.h. emotionale und instrumentelle Unterstützung, erhalten.

Aufgrund der empathischen Nähe zum Partner oder zur Partnerin kann der Stress des anderen nachempfunden und die Gefahr erkannt werden, die dieser Stress für die Beziehung darstellen kann. Das Problem des Einzelnen wird also zum gemeinsamen Problem, und der Partner oder die Partnerin versucht, dem oder der Gestressten bei der Stressbewältigung zu helfen (Bodenmann, 2000; Morelli et al., 2015). Darüber hinaus haben wir festgestellt, dass gestresste Arbeitnehmende dem Partner oder der Partnerin mehr negative Unterstützung geben. Die arbeitsbedingte Belastung erschöpft die persönlichen Ressourcen (ten Brummelhuis & Bakker, 2012a) und hindert den gestressten Arbeitnehmenden daran, auf die Bedürfnisse anderer einzugehen (Danner-Vlaardingerbroek et al., 2012). Frühere Studien belegen diese Verhaltensmuster (z.B. Schulz et al., 2004; ten Brummelhuis & Greenhaus, 2018).

Auch wollten wir herausfinden, welche Rolle das Geschlecht im Geben sozialer Unterstützung spielt. Unsere Ergebnisse zeigen, dass es keinen Unterschied zwischen Frauen und Männern gibt, dies weder bei den Partner-Effekten noch bei den Actor-Effekten. Bei berufstätigen Frauen und Männern wirkt sich Arbeitsstress in gleicher Weise auf das Geben sozialer Unterstützung aus. Dies kann durch soziale Erwartungen und Geschlechterstereotypen erklärt werden, da sie die Kluft zwischen dem erwarteten und dem tatsächlich gezeigten Verhalten von Frauen und Männern erklären können (Aries, 1996; Verhofstadt et al., 2007). Diese dritte Studie verdeutlicht also, dass in einer Beziehung der eigene Arbeitsstress auf die andere Person übergreift und somit eine Bedrohung für das gesunde Funktionieren einer Beziehung darstellen kann. Es zeigte sich, dass dem Partner oder der Partnerin des/der gestressten Arbeitnehmenden eher negative Unterstützung zuteil wird, der Partner oder die Partnerin des/der Gestressten wiederum eher positive Unterstützung gibt.

Die drei durchgeführten Studien zeigen einen Spillover und Crossover von Arbeitsstress, das heisst, dass zusätzlich auch nahstehende Personen des privaten Umfelds durch den eigenen Stress belastet werden können. Seien es nun unfertige Aufgaben am Ende eines Arbeitstages

oder sei es, dass am Abend zusätzlich gearbeitet wird, ob Zeitdruck verspürt wird oder ob und inwiefern dem Beziehungspartner oder der Beziehungspartnerin Unterstützung gegeben wird, es zeichnet sich insgesamt ein Bild ab, das die negativen Auswirkungen von Stress auf das Befinden hervorhebt, wie beispielsweise das Gefühl der Müdigkeit oder Anspannung, der Erholung oder Auswirkungen auf das mentale Abschalten. Die Konsequenzen von Stress sind erheblich, was nochmals seine Brisanz als Forschungsthema und seine Stellung im Berufsalltag hervorhebt.

Praktische Implikationen

Praktische Implikationen können aus den Erkenntnissen dieser drei Studien zum Spillover und Crossover von Arbeitsstress abgeleitet werden. Hinsichtlich der abendlichen Arbeit wird klar, dass es sich dabei um ein zweischneidiges Schwert handelt, wie es Weigelt und Syrek (2017, S. 1607) beschreiben (“a double-edged sword“). Gemäss diesen Autoren ermöglicht der abendliche Aufwand einerseits das Vorankommen bei nichtvollendeten Aufgaben, andererseits werden beim abendlichen Arbeiten dieselben Ressourcen wie jene während des Arbeitstages verbraucht (Sonntag, 2001). Dies führt womöglich zu einer mangelnden Erholung und zu einer Beeinträchtigung des Befindens. Die signifikante Moderation der Zielannäherung in der ersten Studie zeigt, dass das Verspüren positiver Emotionen während der abendlichen Arbeit von grösster Bedeutsamkeit für das Befinden ist. Daher sollten Arbeitnehmende achtgeben, sich kleinere Ziele zu setzen, um trotz des zusätzlichen Aufwands Erfolgserlebnisse zu verspüren. Die Goal-Setting Theory (2002) von Locke und Latham bietet dafür passende Richtlinien. Auch sollten Vorgesetzte die Organisation und Zuteilung von täglichen Arbeitsaufgaben so überdenken, dass ihre Angestellten den Arbeitstag nicht mit unvollendeten Aufgaben beenden, was gemäss Studie 1 das Befinden beeinträchtigen kann.

Im Falle eines zusätzlichen Arbeitsaufwandes am Abend ist es wichtig, sich genügend zu erholen. Wie bereits von Oja et al. (2015) und von uns in der zweiten Studie dieser Dissertation aufgezeigt, wirkt sich die sportliche Betätigung positiv auf das Befinden aus. Sollten Arbeitnehmende abends zusätzliche berufsbezogene Aufgaben ausführen, stellt die zuvor ausgeführte sportliche Betätigung ein Mittel dar, die negativen Auswirkungen des abendlichen Arbeitsaufwands zu mildern. Dies ist bei sozialen Freizeitaktivitäten nicht der Fall, denn diese wirken sich in Kombination mit zusätzlicher berufsbezogener Arbeit am Abend schlecht auf das Befinden aus. Berufstätige sollten es daher vermeiden, soziale Kontakte nach dem Arbeitstag zu unterhalten, wenn sie am selben Abend noch beabsichtigen, berufsbezogene Arbeiten auszuführen.

Dass Arbeitsstress nicht nur Auswirkungen auf das eigene Verhalten und Befinden (wie in den beiden ersten Studien aufgezeigt), sondern auch auf jenes von nahestehenden Personen hat, zeigt sich in der dritten Studie, in der der Einfluss von Arbeitsstressoren auf das Geben sozialer Unterstützung bei berufstätigen Paaren untersucht wurde. Die Erkenntnisse sind insbesondere für die Paartherapie von Interesse. Hier könnten Fachkräfte der Paar- und Familientherapie die emotionale Nähe zwischen den Beziehungspartnern mittels Interventionen zu sozialer Unterstützung stärken (Sullivan et al., 1998), sodass der komplexe Prozess der Anpassung an die Bedürfnisse zwischen den Partnern besser verstanden wird. Daher sollten angemessene Interventionen zum Geben sozialer Unterstützung erarbeitet werden (Rafaeli & Gleason, 2009).

Schliesslich sollte im Rahmen von Weiterbildungen, Mitarbeitergesprächen oder anderen Austauschmöglichkeiten mehr über die Auswirkungen von Arbeitsstress kommuniziert werden, weil er sowohl auf individueller als auch auf Paarebene Auswirkungen auf Verhalten und Befinden zeigt.

Einschränkungen und Richtlinien für zukünftige Studien

Zukünftige Studien sollten folgende methodologische und theoretische Einschränkungen aufgreifen, um die Forschung betreffend unfertige Aufgaben, zusätzliche Arbeit am Abend und das Geben sozialer Unterstützung voranzubringen.

Was die zusätzliche Arbeit am Abend betrifft, so haben wir in unserer ersten Studie festgestellt, dass die Arbeitnehmenden durchschnittlich nur etwa 15 Minuten am Abend arbeiteten. In der zweiten Studie haben wir untersucht, ob und nicht wie lange abends gearbeitet wurde. Obwohl bereits diese kurze Dauer (Studie 1) oder nur eine bloße Erwähnung zusätzlicher Abendarbeit (Studie 2) Auswirkungen auf das Befinden hatten, könnten künftige Studien die Auswirkungen zusätzlicher Arbeit am Abend über einen längeren Zeitraum sowie die Dauer genauer berücksichtigen.

Um dieses Phänomen der zusätzlichen Arbeit am Abend noch besser zu verstehen, könnten Forschende gemäss den Vorschlägen von Syrek und Antoni (2014) zunächst untersuchen, ob diese Aufgaben attraktiv sind (Pychyl et al., 2000), wie dringend sie erledigt werden müssen und welche Priorität sie gegenüber anderen Aufgaben haben (Ashford & Northcraft, 2003; Claessens et al., 2010) oder ob sie ursprünglich geplant waren (Gollwitzer, 1999). Es wäre ebenso vorstellbar, dass es zu einer unterschiedlichen Wirkung auf das Befinden kommt, je nachdem wer die Aufgaben erteilt. Es besteht die Möglichkeit, dass beispielsweise die durch Vorgesetzte erteilten Arbeitsaufgaben dringlicher als die selbst erteilte Aufgaben empfunden werden und diese sich somit anders auf das Befinden auswirken.

Wenn die zusätzliche Arbeit am Abend als Gegenspieler zur Erholung konzipiert wird, so sollten sich künftige Studien auch stärker auf die Art der ausgeübten Freizeitaktivitäten konzentrieren, wie beispielsweise auf kreative und kulturelle Aktivitäten (z.B. Malen, Töpfern, Schauspielen oder das Spielen eines Instruments). Basierend auf der Self-Determination Theory (Ryan & Deci, 2000) und den recovery experiences (Sonnentag & Fritz, 2007) kann

davon ausgegangen werden, dass die Ausübung kreativer Aufgaben, bei denen Kompetenz oder Autonomie empfunden werden, zur Selbstverwirklichung beitragen und motivieren, was sich positiv auf das Befinden und auf die Erholung auswirkt. Diese Grundbedürfnisse stehen im Einklang mit der Vorstellung, dass es weniger die Freizeitaktivität selbst, sondern vielmehr die dabei empfundene Erholung während der Aktivität (z.B. Facetten der Erholung: Beherrschung, Autonomie oder Verbundenheit) ist, die unser Befinden beeinflusst (für einen Überblick siehe Sonnentag et al., 2017). Frühere Studien bestätigen einen Zusammenhang von kreativen und kulturellen Freizeitaktivitäten und dem Befinden, insbesondere auf die körperliche und mentale Gesundheit (Acar et al., 2020; Iwasaki et al., 2005; Leckey, 2011). Der Bereich der kreativen Freizeitaktivitäten ist bisher weitgehend unerforscht geblieben und sollte in der Erholungsforschung gründlicher behandelt werden.

Eine weitere Einschränkung betrifft die Dauer der durchgeführten Freizeitaktivitäten, da wir nur berücksichtigt haben, ob und welche Art von Aktivitäten vor der zusätzlichen Abendarbeit ausgeführt werden. Da einige Befunde die Dauer von Freizeitaktivitäten bereits berücksichtigen (z.B. Mojza et al., 2010; Rook & Zijlstra, 2006; Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006), ermutigen wir Forschende, auch diesen Aspekt miteinzubeziehen und zum Beispiel zu untersuchen, ab wann eine Freizeitaktivität das Befinden beeinflusst. Darüber hinaus sollten künftige Studien die Art und Dauer von Freizeitaktivitäten untersuchen, die *morgens* vor Beginn des Arbeitstages unternommen werden. Dies könnte für Lehrpersonen von besonderem Interesse sein, da ihre Arbeitszeiten während der Woche stark variieren können. Wir schließen uns deshalb den Empfehlungen von Sonnentag et al. (2017) an und fordern weitere Untersuchungen zu zeitlichen Aspekten in der Erholungsforschung.

Künftige Studien sollten sich mit den folgenden methodologischen Einschränkungen befassen, nämlich der Zusammensetzung der Studienstichproben und den verwendeten Designs. Forschende sollten im Falle einer Untersuchung des Arbeitsverhaltens von

Arbeitnehmenden im privaten Umfeld auf eine heterogenere Stichprobe achten. In unserer ersten Studie zu unerledigten Aufgaben und zusätzlicher Arbeit am Abend hatten fast 64 % der Teilnehmenden einen Hochschulabschluss. In diesem Sinne sagt Almeida (2005), dass Personen mit einem höheren sozioökonomischen Status Belastungen anders als Personen mit niedrigerem sozioökonomischem Status regulieren. An der zweiten Studie zu zusätzlicher Arbeit am Abend sowie zur Erholung nahm eine große Anzahl weiblicher Lehrkräfte teil. Da die Datenerhebung für diese zweite Studie während der COVID-19-Pandemie im Herbst 2020 stattfand, könnten der Alltag und insbesondere das Befinden der Lehrkräfte stark beeinträchtigt gewesen sein (Alves et al., 2021). Diese ungleiche Verteilung im Bildungsstand und im Geschlecht stellt somit eine Einschränkung hinsichtlich der Stichproben dar.

Im Hinblick auf das verwendete Studiendesign in Studie 3 zu den Auswirkungen von Arbeitsstressoren auf das Geben sozialer Unterstützung können nur bedingt kausale Schlussfolgerungen gezogen werden (Spector, 2019), gleichwohl wir Auswirkungen von Arbeitsstressoren auf das Geben sozialer Unterstützung mittels eines Querschnittsdesigns gefunden haben. Angesichts der Tatsache, dass das Unterstützungsverhalten bei berufstätigen Paaren von Tag zu Tag variiert (Neff & Karney, 2005), sollten künftige Studien intraindividuelle Effekte in Bezug auf das Geben von Unterstützung weiter untersuchen, dies beispielsweise anhand von Mehrebenenmodellen. Eine weitere methodologische Einschränkung betrifft die geschlechterspezifische Untersuchung des sozialen Unterstützungsverhaltens, da Daten basierend auf Selbst- oder Partnerwahrnehmung im Vergleich zu Daten aus Beobachtungsstudien unterschiedliche Ergebnisse liefern.

Während Daten basierend auf Selbst- und Partnerwahrnehmungen eher auf Geschlechterunterschiede schließen lassen (z.B. ten Brummelhuis & Greenhaus, 2018), zeigen Daten aus Beobachtungsstudien diese nicht auf (z.B. Lawrence et al., 2008; Pasch et al., 1997). Dennoch konnten wir keine geschlechterspezifischen Unterschiede beim Geben sozialer

Unterstützung feststellen, was sich mit früheren Ergebnissen deckt (z.B. Donato et al., 2014; Rusu et al., 2016; Verhofstadt et al., 2007). Forschende sollten sich dieses methodologischen Problems bewusst sein, was sich offensichtlich auf Schlussfolgerungen zum Unterstützungsverhalten auswirkt.

Abschließend sei gesagt, dass Forschende diese Einschränkungen berücksichtigen sollten, indem sie Studien mit homogeneren Stichproben und anderweitigen Designs durchführen sollten.

Ein persönlicher Ausblick

Nebst den genannten theoretischen und methodologischen Implikationen für die Forschung soll an dieser Stelle noch ein persönlicher Ausblick für Arbeitspsycholog-inn-en im Personalwesen folgen, der mittels der folgenden Stichwörter zusammengefasst werden kann: geregeltes Homeoffice in Zeiten der Digitalisierung, massgeschneiderte Schulungen zu Themen der betrieblichen Gesundheitspsychologie.

In Zeiten des raschen Wandels aufgrund der seit Jahren aufkommenden Digitalisierung entwickelt sich das Flexplace-Working mittels Einsatzes technologischer Hilfsmittel zu einer beliebten Arbeitsmethode (Allen et al., 2015), da es zu einer Minderung an Konflikten zwischen Berufs- und Privatleben führen kann (Hill et al., 2004). Auch kann das Flexplace-Working Ausdruck von Massnahmen seitens der Unternehmen hinsichtlich stetig wachsender Anforderungen sein. Doch gerade dieses Ausführen berufsbezogener Tätigkeiten, wie es beispielsweise abends im privaten Umfeld erfolgen kann, birgt Gefahren, wie im Rahmen dieser Dissertation aufgezeigt wurde. Nebst der Steigerung eigener Produktivität und dem Entgegenwirken eigener Leistungsdefizite während des Arbeitstages (Weigelt & Syrek, 2017), stelle ich fest, dass es sich bei diesem Arbeitsverhalten, dessen Auswirkungen auf das Befinden nur schlecht unterbunden werden können, primär um einen Risikofaktor und Stressor handelt.

Meiner Meinung nach sollten Unternehmen dem Wunsch nach mehr Flexibilität in der Arbeitsorganisation nachkommen, weswegen es auch notwendig erscheint, die Arbeitnehmenden über die Auswirkungen von zusätzlicher Arbeit am Abend aufzuklären und präventive Regelungen aufzustellen. Daher schlage ich vor, dass Vorgesetzte partizipativ die Arbeitsaufgaben erteilen und organisieren sollten, sodass die Arbeitnehmenden nicht mit unvollendeten Aufgaben den Feierabend antreten und sich gezwungen fühlen, abends Aufgaben fertigzustellen. Hier zeigte sich im Rahmen dieser Studien, dass ein wahrnehmbarer Fortschritt in den Aufgaben während des abendlichen Arbeitens von grösster Bedeutung für das Befinden ist. Auch sollten Arbeitnehmende darauf achten, sich im Vorfeld genügend sportlich zu betätigen, um fit zu bleiben und um abends mental besser abzuschalten. Schliesslich konnte aufgezeigt werden, dass die Bewältigung von Arbeitsstress sowohl in Eigenverantwortlichkeit als auch durch die Unterstützung nahestehender Personen geschieht. Unternehmen sollten keineswegs ihre Angestellten aus Sparmassnahmen ins Homeoffice schicken. Dies sollte nur als Gelegenheit, welche bestimmter Regeln bedarf, angesehen werden, um besser auf die Bedürfnisse der Arbeitnehmenden einzugehen. Unter Berücksichtigung solcher Regeln wird aus meiner Sicht das Flexplace-Working am Abend ausserhalb der regulären Arbeitszeit zu einem erfolgsversprechenden Verhalten, das sich mit dem technologischen Wandel gut vereinbaren lässt.

Dass künftig das Gesundheitsmanagement nicht nur als zusätzliches HR-Anwendungsfeld und als Marketingmassnahme, sondern auch als notwendiges Mittel zur Leistungssteigerung und Motivation der Arbeitnehmenden in Unternehmen einen fixen Platz einnehmen wird (und muss), zeigen auch Erkenntnisse von *Gesundheitsförderung Schweiz* (2017). Ihrer Studie zufolge sind es insbesondere Themen wie Stressprävention und mentale Gesundheit, die Unternehmen landesweit beschäftigen und beschäftigen werden. Wie im Rahmen dieser Dissertation aufgezeigt wird, sind Arbeitsstressoren wie Zeitdruck, unerledigte

Aufgaben oder abendliches Arbeiten nur Beispiele solcher Belastungen, die heutzutage zum beruflichen Alltag gehören.

Meines Erachtens besteht daher ein grosser Bedarf an massgeschneiderten Schulungen zur Prävention und zu den Auswirkungen von Arbeitsstress (z.B.: «Was ist Stress?», «Ursachen und Folgen von Arbeitsstressoren», «Präventive Maßnahmen»). Zum Beispiel sollten maßgeschneiderte Schulungen deutlich machen, dass Vorgesetzte als Vorbilder für gut funktionierende Arbeitsabläufe fungieren, wie von Koch und Binnewies (2015) empfohlen. Darüber hinaus sollte bei Schulungen auf die Bedeutung eines partizipativen Ansatzes bei betrieblichen Gesundheitsmaßnahmen Wert gelegt werden (Kompier et al., 1998; Nielsen et al., 2010), damit sich die Arbeitnehmenden als Handelnde sehen ("perceive themselves to be agents of change rather than objects of change", Semmer, 2006, S. 522). Zudem sollten betriebliche Gesundheitsmassnahmen als notwendiges Werkzeug und nicht als fakultative Massnahme angesehen werden, so Nielsen et al. (2010, S. 252, "occupational health interventions are often seen as something separate from running the daily business and ensuring high performance (that is, as a "nice to have" rather than as integral to the effectiveness of the organization)."). Darüber hinaus sollte verdeutlicht werden, dass der digitale Wandel zwar eine Chance auf Veränderungen darstellt, dieser aber im Hinblick auf die Gesundheit der Arbeitnehmenden mit Vorsicht gehandhabt werden muss. Schließlich sollten bezüglich der Schulungsinhalte vermehrt Brücken zwischen der Forschung und der Praxis geschlagen werden.

Da Arbeitsstress zwar auf individueller Ebene Bedeutung findet, aber objektiv Auswirkungen auf Unternehmen und Gesellschaft hat, ist der Handlungsbedarf für Arbeitspsycholog-inn-en im Personalwesen gross, um die Herausforderungen des Gesundheitsmanagements von Morgen zu meistern. Diese Fachkräfte sind mehr denn je gefragt und sollten sich als humanwissenschaftliche Akteure des Wandels zeigen, um das Befinden der

Arbeitnehmenden zu fördern. Dies kann als Erfolgsfaktor des (digitalen) Wandels gedeutet werden.

Schlussfolgerung

Arbeitsstressoren und die damit verbundenen Belastungen wirken sich unweigerlich auf das Befinden aus. Die in dieser Dissertation vorgestellten Studien zeigen, dass arbeitsbezogene Stressoren und zusätzliches Arbeiten am Abend Auswirkungen auf das affektive und das kognitive Befinden haben, was sich auf individueller Ebene wie auch auf Paarebene erkennen lässt.

Zu der Frage, was unternommen werden kann, um die negativen Auswirkungen auf das Befinden abzuschwächen, können folgende Empfehlungen gegeben werden: Wenn der Arbeitstag mit unerledigten Aufgaben endet, sollten zusätzliche Arbeitsanstrengungen am Abend nur insofern unternommen werden, wenn bei diesen Aufgaben ein signifikanter Fortschritt erzielt wird. Auf die Frage, welche Freizeitaktivitäten vor diesem zusätzlichen Arbeitsaufwand am Abend durchgeführt werden können, um dessen negative Auswirkungen auf das Befinden abzumildern, wurde in der zweiten Studie hervorgehoben, dass sportliche Freizeitaktivitäten das mentale Abschalten vor dem Schlafengehen fördern. Schließlich zeigte die dritte Studie, dass Berufstätige, die unter erhöhter Arbeitsbelastung stehen, dem Beziehungspartner mehr negative Unterstützung geben. Der Partner oder die Partnerin wiederum gibt der/dem gestressten Berufstätigen mehr positive Unterstützung. Zu wissen, dass berufliche Stressoren nicht nur das eigene Unterstützungsverhalten, sondern auch jenes anderer beeinflusst, verdeutlicht sein Ausmass auf individueller als auch auf Paarebene.

Zusammenfassend lässt sich sagen, dass verschiedene Faktoren Stress hervorrufen können, sich dieser Stress unweigerlich in das Privatleben einschleicht und er eine unvermeidliche Begleiterscheinung des Arbeitsalltags darstellt. Daher ist es wichtig, sich der

Auswirkungen auf das Befinden bewusst zu werden und verfügbare Ressourcen zu deren Bewältigung zu identifizieren. Schließlich sollten sich Unternehmen vermehrt mit Belangen des betrieblichen Gesundheitsmanagements befassen und sich dem Schutz einer ihrer wertvollsten Güter zu verschreiben, nämlich dem Wohlbefinden ihrer Arbeitnehmenden und derer Gesundheit.