The Effect of Off-Job Activities on Next Day Work Engagement and Positive Affect in a Sample of Academics: A Daily Diary Study

by

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A Thesis Submitted to the Graduate School of Social Sciences and Humanities

in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in

Psychology

Koç University

January 2019

Koç University

Graduate School of Social Sciences and Humanities

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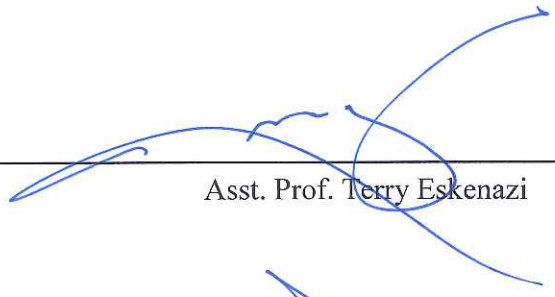

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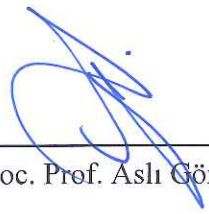

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ABSTRACT

The present study investigates the effects of previous day recovery experiences (i.e., psychological detachment from work and daily off-job activities) and reattachment to work on work engagement and positive affect during the day. We hypothesized that off-job activities were related to next day recovery outcomes depending on the happiness level felt during the activities. In a daily diary study, 73 academics completed a general questionnaire and a total of nine daily surveys over three consecutive workdays (219 data points). Participants reported their recovery experiences in bedtime (time 1), levels of reattachment to work at noon (time 2), and levels of state work engagement and positive affect in the evening (time 3). Multilevel analyses revealed that psychological detachment was associated with positive affect but not with work engagement. Household and passive activities contributed positively to work engagement in the next day if happiness felt during the activities was high. Family time had a main positive effect on work engagement. And, remarkably, active leisure was associated with less work engagement and positive affect the next day if happiness during the activity was low. As predicted, reattachment to work at noon was a strong predictor of state work engagement during the day. The findings emphasize the importance of personal experiences in predicting the effects of off-job activities on recovery outcomes, using a sample at high risk for work-life conflict and burnout.

Keywords: psychological detachment, reattachment, recovery from work, work engagement, positive affect, daily diary study.

ÖZET

Bu araştırmada iş saatleri sonrası gerçekleştirilen aktiviteler yolu ile işten geçici olarak zihinsel kopmanın ve ertesi günü işe yeniden bağlanmanın, işe bağlılık ve pozitif duygu durumu üzerindeki etkileri incelenmiştir. İş sonrası akşam yapılan aktiviteler ile ertesi günkü işe bağlılık ve pozitif duygu arasındaki ilişkinin aktiviteler sırasında hissedilen mutluluk seviyesine göre değiştiğine dair bir etkileşim hipotezi kurulmuştur. Çalışma için Türkiye'deki bir üniversiteden 73 akademisyen tek seferlik bir başlangıç anketini ve toplam 9 adet günlük anketi peş peşe 3 iş gününde doldurmuşlardır (N=219 veri noktası). Günlük anketler gece, öğlen ve akşam işten çıkarken olmak üzere toplam üç kez doldurulmuştur. Katılımcılar gece anketinde o günkü işten uzaklaşma deneyimleriyle ilgili ölçekleri (Zaman 1), öğlen anketinde iş günü başlamadan önce işe yeniden bağlanmalarıyla ilgili ölçeği (Zaman 2), akşam işten çıkmadan önce ise o günkü işe bağlılık seviyesi ve pozitif duygu durumlarıyla ilgili ölçekleri doldurmuşlardır (Zaman 3). Çok düzeyli analiz sonuçlarına göre akşam işten çıktıktan sonra zihinsel olarak işten kopmak ertesi günkü pozitif duygu durumunu olumlu etkilemektedir fakat işe bağlılıkla ilişkili değildir. Günlük iş dışı aktivitelerdeyse ev işi aktiviteleri ve pasif aktivitelere harcanan zamanın, eğer bu aktiviteler sırasında mutluluk seviyesi yüksekse ertesi günkü işe bağlılık düzeyinde üzerinde pozitif etkisi olduğu bulunmuştur. Ayrıca aile aktivitelerine harcanan zamanın işe bağlılık üzerine olumlu etkisi vardır. Dikkat çekici bir sonuç da sosyal ve fiziksel aktivitelerin eğer aktiviteler sırasında mutluluk düzeyi düşükse ertesi günkü işe bağlılık ve pozitif duygu durumunu olumsuz yönde etkilemesidir. Öngörüldüğü gibi sabahleyin işe yeniden bağlanma o günkü işe bağlılık seviyesi arasında güçlü bir ilişki vardır. Bu çalışma iş-yaşam çatışması ve tükenmişlik riskinin yüksek olduğu bir örneklemi kullanarak, kişisel deneyimlerin iş dışında yapılan aktivitelerin araştırılan sonuç değişkenleri üzerindeki etkisini değiştirebilmesindeki öneminin altını çizmektedir.

Anahtar sözcükler: işten geçici olarak zihinsel kopma, işe yeniden bağlanma, işten uzaklaşma, işe bağlılık, pozitif duygu durumu, günlük çalışması

DEDICATION

I dedicate this thesis

to my mother, Tülay Aydın

and my father, Ahmet Aydın

ACKNOWLEDGMENTS

I would like to begin by stating my deep gratitude to my advisor, Asst. Prof. Yasemin Kisbu Sakarya for contributing her time and effort and for being such a supportive mentor. I am indebted to her for accepting me as her thesis student starting from the second year of my master studies. Her guidance and encouragement helped ease this challenging research journey. She was the best advisor I could have asked for and it was an honor to work with her.

I would also like to express my gratitude to the other members of my thesis committee: Asst. Prof. Terry Eskenazi and Assoc. Prof. Aslı Göncü Köse. I appreciate their valuable suggestions and constructive feedback which added more value to this research. I am also thankful to my former advisor, Asst. Prof. Scott Withrow for the initial discussions that helped establish this research study.

I would like to acknowledge the Koç University academics who have participated in this study for their time and effort, given their busy schedules. A very special thanks goes out to Koç University for being more than just a university to me; it has been my second home since 2010.

I am grateful to my strong support system. I thank my friends Elif Melis Enç, Oğuzcan Zengin, Ommay Aiman Safi, Öykü Örnek, Özlem Torunoğlu, Utku Tekin, Emre Kaya, İdil Bayraktar, and Özlem Sumer. I would especially like to thank my friend and greatest supporter, Eyşan Demirkaya. This process would have been more difficult if you did not listen to me and cheer me up during the ups and downs of graduate life. I am indebted to you for encouraging me when I felt down and supporting me to do my best. I wish you the health and joy to continue to inspire more. Thank you.

I would also like to thank my aunt, uncle, and cousins for their support. My grandmother and grandfather's wishes and continuous support also encouraged me in this period.

Finally, the most special thanks go to my mother and my father. Thank you for all the support and unconditional love that you gave me throughout my life. Thank you for believing in me. Words are not enough to express my gratitude to you. Dad, I know that you are with me on this journey all the time. I always remembered what you used to say about joy, academia, and life whenever I felt down. I miss you so much. Thank you for everything.

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CHAPTER 1

INTRODUCTION

Work is a demanding experience for employees that necessitates a rest period afterward to recover from the work-related effort. Yet, the traditional 9-to-5 working pattern which gives employees opportunities to temporarily detach (i.e., to disconnect) from work during their off-job time is no longer viable in the modern work context. Therefore, the boundaries between work and life outside work have blurred, and the work–rest cycle is impaired to some extent (Sonnentag & Zijlstra, 2006). For instance, American Time Use Survey demonstrated that employees spend more time working at home in 2016 than in 2003, which increased from 2.6 to 3.1 hours, hinting that recovery from work during off-job time might be at risk. Insufficient recovery for an extended period of time is associated with poorer employee well-being, health, and functioning (Meijman & Mulder, 1998; Sonnentag, Binnewies, & Mojza, 2010; von Thiele Schwarz, 2011).

There is a substantial body of empirical research on the factors leading to recovery from work as well as the effects of recovery on individual well-being and functioning at work. Initially, Sonnentag (2001) categorized several off-job activities (e.g., household activities, social activities) into two groups—high-duty tasks and leisure activities—suggesting these activities might be related to recovery-related outcomes with respect to their potential to hamper or facilitate recovery. Next, it has been suggested that psychological detachment from work facilitates recovery by keeping the mind away from job-related thoughts temporarily (i.e., during the off-job time) (Sonnentag & Bayer, 2005). Recently, Sonnentag and Kühnel (2016) have proposed that reattachment to work is a complementary process to detachment such that reattachment is necessary to activate the work-related mind and to enhance functioning at work after a detachment period. Authors showed in a daily diary study that reattachment to work in the morning predicts work engagement during the workday.

Using a diary study design, the present study investigates the within-person dynamics in the relationship between daily off-job time, and work-related and affective well-being outcomes in a sample of academicians. More specifically, we examine the role of psychological detachment from work, the interactive effect of time spent on and happiness during off-job activities, as well as the effect of reattachment in the morning on two recovery outcomes, next day's state work engagement and state positive affect. We aim to contribute to recovery research in several ways. First, the present study examines whether the extent to which the off-job activities are experienced with happiness matter for recovery. Findings from the off-job activities research are mixed and inconclusive for the hypothesized hampering and enhancing effects (for a review, see Demerouti, Bakker, Geurts, & Taris, 2009), probably due to the operationalization of activities in terms of the amount of time. We follow several authors' suggestions that subjective experience of the activities (e.g., enjoyment) should also be taken into account (e.g., ten Brummelhuis & Bakker, 2012). Oerlemans, Bakker, and Demerouti (2014) for instance found that happiness during off-job activities moderated the relationship between time spent on off-job activities and subjective well-being before bedtime. We intend to take a step forward and investigate whether the interaction effect of happiness can manifest itself for the next day engagement and affect at work (i.e., spillover effect). Second, we aim to test a better categorization of off-job activities in the relevant literature, especially for the child-related activities. That is, the current categorization of these activities appears to be problematic such that they are labeled as care activities as if they only have an obligatory nature. Yet, child-related activities might also comprise other activities such as play activities and having dinner together. Thus, we introduced the category of family- and child-related activities with a modified explanation encompassing these activities in addition to childcare. Third, we aim to contribute to the knowledge on the new concept of reattachment to work by replicating the previous finding about its effect on work engagement in a different

sample and by testing its effect on a different outcome variable, state positive affect, while controlling for the effects of detachment from work and recovery activities in the previous evening. Finally, we examine the suggested relationships in a sample of academicians, which is an occupational group known to be at high risk for work-life conflict and burnout (Watts & Robertson, 2011). It should be noted that this study is one of the few diary studies that examine the daily recovery from work among academicians (for the other studies, see van Hooff, Geurts, Kompier, & Taris, 2007; van Hooff, Geurts, Beckers, & Kompier, 2011).

CHAPTER 2

LITERATURE REVIEW

2.1 Effort-Recovery Model and Conservation of Resources Framework

Two complementary models emphasizing the role of recovery in maintaining well-being are Meijman and Mulder (1998)'s Effort-Recovery (E-R) Model and Hobfoll (1989, 2002)'s Conservation of Resources (COR) framework. The E-R Model states that spending effort at work results in negative load reactions (e.g., fatigue). Yet, these straining reactions are reversible if psychobiological systems taxed during work are not employed during off-job time. Specifically, if relieved from job-related demands, psychobiological systems are returned to predemand levels, and recovery occurs (Meijman & Mulder, 1998). If recovery happens at an insufficient rate, additional effort would be necessary to function well and prevent performance problems the next day. This extra effort results in larger straining reactions which, in the long run, may lead to health and well-being problems. Similarly, COR states that resources play a crucial role in coping with stress (Hobfoll, 1989). The main tenet of this framework is individuals strive to maintain, retain, and protect their resources that help them to function optimally during the day. These resources comprise (a) object resources such as a house and a car, (b) condition resources such as a good marriage, (c) personal characteristics such as self-esteem, and (d) energy resources such

as level of vigor (Demerouti et al., 2009). Individuals experience stress when there is (a) an actual loss, (b) a threat to lose, or (c) a feeling of inability to regain their resources after spending them (Hobfoll, 1989).

In the context of work–life interface, resource loss at work and the inability to regain (i.e., to recover) these resources during after-work hours are problematic for well-being and performance. For example, one's self-esteem may be damaged after a stressful workday. In that case, one would need either to gain new resources or to restore the impaired resources to cope with the negative effects of daily distress level (Demerouti et al., 2009; Hobfoll, 1989; Park, Fritz, & Jex, 2015). If resources are not replenished, additional effort is needed to function normally during the day (Binnewies, Sonnentag, & Mojza, 2009). In other words, resource recovery becomes vital for employees such that their life outside of work has an impact on their work performance and well-being.

2.2 State Work Engagement and State Positive Affect

The present study investigates two recovery indicators; state work engagement and state positive affect as work-related and individual well-being outcomes, respectively. First, work engagement is a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli & Bakker, 2004). Vigor refers to an energetic state and willingness to invest effort to work. Dedication is related to finding significance in work and feeling pride while working. Absorption is a state where one feels fully engaged and concentrated in work. The prior research described work engagement as a stable trait (Schaufeli, Salanova, Gonzalez-Romá, & Bakker, 2002) and focused on between-person differences. Further, Sonnentag (2003) claimed that in addition to the enduring part of engagement, there is also a transient component of it implying the differences within the same individuals across time. Later,

research confirmed that work engagement has substantial variations both in within- and between-person (e.g., Bakker, 2014).

Meta-analysis studies found that work engagement was associated with important outcomes such as task performance and contextual performance (Christian, Garza, & Slaughter, 2011), organizational commitment, health, and turnover intentions (Halbesleben, 2010). Thus, both theoretically and practically, it is important to investigate the predictors of work engagement to get a more comprehensive picture of the processes leading to this experience.

Next, state positive affect is defined as a mood state reflecting one's level of enthusiasm, being active and alert on a specific moment (Watson, Clark, & Tellegen, 1988). More specifically, high positive affect refers to "a state of high energy, full concentration, and pleasurable engagement" (Watson et al., 1988). In a meta-analysis of within-person studies, state affect was positively associated with task performance and organizational citizenship behavior, and negatively associated with counterproductive work behavior (Shockley, Ispas, Rossi, & Levine, 2012). These associations imply more empirical attention should be given to shed light on the factors empowering state positive affect.

2.3 Role of Psychological Detachment in Recovery

Psychological detachment from work denotes not only refraining from job-related activities but also being temporarily distanced from job-related thoughts and feelings during the off-job time (Sonnentag & Bayer, 2005; Etzion, Eden, & Lapidot, 1998). It is also described with the analogy of one's "mentally switching off from work", with the aim of recharging oneself for the subsequent workday. The mechanism by which temporary psychological detachment from work helps to promote work-related and general well-being can be explained through daily resource recovery which is in line with the COR framework (Hobfoll, 1989).

During psychological detachment from work, the resources taxed during the workday are no longer used and rather are replenished. Conversely, staying connected to work during after-work hours drains resources and impairs resource replenishment during off-job time, leading to less available energetic and affective resources for the next day. Work engagement—i.e., having enough energy and resilience, feeling significance during work—will be less likely to occur the next day when having insufficient resources. Compensation of lost resources might lead to strain reactions by spending extra effort (in line with the E-R perspective), and investment of other resources to offset net resource loss (in line with the COR perspective) which may decrease positive affect experienced during the day.

Within-person studies show that detachment during the evening is related to positive mood, lower levels of fatigue and exhaustion, high levels of vigor at bedtime, decreased work-related exhaustion, and increased work engagement the next day, and state of being recovered in the morning (Sonnentag & Bayer, 2005; Demerouti, Bakker, Sonnentag, & Fullagar, 2012; Sonnentag, Binnewies, & Mojza, 2008; Derks, van Mierlo, & Schmitz, 2014; ten Brummelhuis & Bakker, 2012; Sonnentag & Kühnel, 2016; Binnewies, Sonnentag, & Mojza, 2010; Niks, Gevers, de Jonge, & Houtman, 2016). Thus, in line with the literature, we expect that detachment in the evening leads to resource recovery. This recovered state implies restored attentional, energetic, and affective resources, which elicits work engagement and a positive affect the next day.

> *H_1*: Psychological detachment from work in the evening is positively related to (a) work engagement and (b) positive affect the next day.

2.4 Role of Daily Off-Job Activities in Recovery

Daily off-job activities can have important implications for the recovery process. Sonnentag (2001) described five types of off-job activities and classified them into two main

groups as high-duty tasks and leisure activities based on their potential for recovery. The first group is defined as activities with a high-duty profile, which contains job-related activities as well as household and childcare activities. Sonnentag argues that high-duty activities employ the resources that are the same or similar to those used during the workday. These activities, hence, do not replenish the depleted resources, but instead, they consume more resources, implying the disrupted recovery. The second group—social, low-effort, and physical activities—is defined as leisure activities. These activities do not have an obligatory nature, but they are "done for its own sake" (Sonnentag, 2001). As a result, they lead to restoration and even enhancement of resources via increasing the opportunities to recover from work.

However, empirical studies showed inconsistent findings regarding these assumptions. High-duty activities have not consistently shown the adverse effects, and leisure activities do not always confirm the hypothesized favorable effects on recovery, mostly with nonsignificant results (see Demerouti et al., 2009). This is mostly a result of operationalizing the off-job activities only by the amount of time, but not by the subjective experience. Supporting this idea, the studies taking into account the subjective experience found more significant results. To our knowledge, three examples of such studies are present. First, Volman, Bakker, and Xanthopoulou (2013) examined the extent to which the individual "wants to" engage in an activity in a particular day moderates the relationship time devoted to activities and daily recovery. Next, ten Brummelhuis and Trougakos (2014) looked at the role of intrinsic versus explicit motivation for each off-job activity, as a moderator for the effect on next morning recovery. Finally, Oerlemans et al. (2014) found that happiness during the off-job activities moderated the relationship between time spent on those activities and subjective well-being at bedtime. These findings implicate that not only time spent on the activities but also quality experienced during off-job activities is of importance for recovery outcome. Specifically, the assumed recovery or hampering effect of

activities on recovery outcomes might be affected by how these activities are experienced, and failure to take this into account might be the reason of the inconsistent findings across the off-job activities research. Following Oerlemans et al. (2014), the present study examines happiness during activities as a moderator in the off-job activities–recovery relationship.

2.5 The moderating role of Happiness during Off-Job Activities

The recovering effect of happiness can be explained by the mechanisms proposed by Frederickson's (2001) broaden-and-build theory of positive emotions. The theory leads to the premise that positive affect expands resource recovery. Frederickson argued that negative emotions, such as fear, narrow the range of activities due to the urges with survival purposes (e.g., escaping); yet, positive emotions do not require a specific narrowed response, but rather they "widen the array of thoughts and actions". Consequently, positive affect broadens individuals' thought–action repertories (the 'broaden' hypothesis) and this increased action lead to enhanced resources (the 'build' hypothesis). Specifically, positive affect enlarges attention, cognition, and action, and consequently increases resources, which, in turn, results in enhanced functioning and well-being. Another proposition of the theory is the incompatibility of positive and negative emotions due to their belongingness to the same thought–action repertoire. Fredrickson also argues that positive effects can "undo" the negative effects implying that negative load reactions resulting from the workday activities can be alleviated through increased positive affect during activities. On the basis of the broaden-and-build theory, we hypothesize that happiness during the evening may lead to a state the next morning in which individuals are fully recovered from the previous day through replenishment of resources. We will examine this moderator effect of happiness in the relationship between five types of off-job activities and

recovery outcomes: Work-related, household, family- and child-related, passive, and active leisure activities.

First, work-related activities during off-job hours were hypothesized to impede recovery the next day (Sonnentag, 2001). Previous studies mostly confirmed this effect that time spent on work-related activities is shown to decrease well-being before sleep (Sonnentag, 2001); happiness and vigor at bedtime (Bakker, Demerouti, Oerlemans, & Sonnentag, 2013); next morning vigor and next day work engagement (ten Brummelhuis & Bakker, 2012). Yet, several studies could not find any relationships with several recovery outcomes such as depression and fatigue (Sonnentag & Natter, 2004; Rook & Zijlstra, 2006). Theoretical explanations for this hampering effect are similar to those related to the mechanism of psychological detachment from work. Working during off-job hours impairs resource restoration and even drains more of the individuals' resources, resulting in further loss of energetic and affective resources (Hobfoll, 1989). We assume that the negative association between work-related activities and recovery might be weakened by happiness during the activity (e.g., one may feel accomplished while working in the evening). Even though working drains the same resources that are already expended in work, happiness during working—as an affective resource—can offset the net loss of resources (Hobfoll, 1989). From the perspective of broaden-and-build theory, positive affect during an activity can undo the negative load reactions (Fredrickson, 2001).

> H_2: Time spent on work-related activities in the evening is negatively related to (a) work engagement and (b) positive affect the next day, but happiness during this activity will attenuate this hampering effect.

Prior research focused on the inhibitory effect of household and childcare activities on recovery. Sonnentag (2001) asserted these activities fall into the category of high-duty tasks because of their obligatory nature. That is, household and childcare activities cannot be

postponed, or can only be postponed to a lesser extent (i.e., an individual cannot choose whether to feed his or her own children.) In addition, these activities need to be fulfilled when already fatigued after a workday, which maintains the resource loss according to COR (Hobfoll, 1989). However, this hypothesized inhibitory effect could not be supported yet while the effects were almost always nonsignificant (Sonnentag, 2001; Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006). This might be due to two reasons. First, studies mostly assessed household and childcare activities together even though they might have different impacts on recovery. Importantly, measuring household and childcare activities in the same activity category undermine the real effects of childcare activities. In line with that, ten Brummelhuis and Bakker (2012) argued that household activities might have detrimental effects on recovery, but childcare activities at least do not hamper recovery. ten Brummelhuis and Trougakos (2014) found that childcare activities were related to feelings of being recovered if intrinsically motivated, but household activities are still unrelated. Thus, it is important to measure household and childcare activities separately. Second, labeling childcare activities as a high-duty task might contradict the role of family activities in enhancing well-being (ten Brummelhuis & Bakker, 2012). In fact, even though Sonnentag (2001) described the childcare activities as obligatory and recovery-inhibiting, the examples of this category are only comprised of care activities but does not include having dinner with family and play activities with child (Sonnentag, Niessen, & Neff, 2012). Similarly, Fredrickson (2001) suggest that play activities build social resources through social bonds and attachments, implying that play activities with children might help someone to recover from work. Family time should not be equated with care activities. Thus, we assess *family- and child-related activities* to tap the family-related time, instead of the category of childcare activities.

We expect that the relationship between time spent on household and family-related activities and recovery outcomes are moderated by the enjoyment of the activities. Household

activities may provide opportunities for cognitive distraction from work. Besides, some of the household activities might be more enjoyed than of others (e.g., shopping for groceries). Similarly, family-related activities can provide opportunities to socialize together. Whereas it was argued that the "demanding and obligatory nature of household and childcare activities exceeds their potentially beneficial effects" (Sonnentag, 2001), we believe that potential benefits can surpass the assumed harmful effects, especially for child-related activities—given the high psychological value of children (Kağıtçıbaşı, 2007). Enjoying these activities may increase the recovery potential because positive affect enhances resources (Fredrickson, 2001).

> *H3*: Time spent on household activities in the evening is positively related to (a) work engagement and (b) positive affect the next day if happiness during such activities is high.
>
> *H4*: Time spent on family- and child-related activities in the evening is positively related to (a) work engagement and (b) positive affect the next day if happiness during such activities is high.

Passive activities are characterized by their requirement of low levels of effort. This category comprises several activities such as lying on the couch, watching television, and reading a magazine. Passive activities are hypothesized to enhance resource recovery by not putting additional demands on functional systems alerted during work hours. As a result, functional systems can be returned to predemand levels (Meijman & Mulder, 1994; Sonnentag, 2001). Studies partially supported the hypothesized favorable effects of low-effort activities on recovery (Sonnentag, 2001; ten Brummelhuis & Bakker, 2012; Oerlemans & Bakker, 2014; ten Brummelhuis & Trougakos, 2014), sometimes could not find any link (Sonnentag & Natter, 2004; Sonnentag & Zijlstra, 2006; Oerlemans et al., 2014; van Hooff et al., 2011) but at least did not provide any evidence for an inhibitory effect. Even so, happiness during the passive activity

might affect the relationship between the amount of time for the activity and recovery outcomes. If passive activities are enjoyed, the recovery potential will be promoted by the expansion of resources, which is in accordance with the broaden-and-build theory (Fredrickson, 2001).

> H_5: Time spent on passive activities in the evening is positively related to (a) work engagement and (b) positive affect the next day if happiness during such activities is high.

Active leisure activities require more effort, as opposed to passive activities. These activities are comprised of social activities (e.g., having dinner with friends, talking to a friend on the phone, and going to a concert) and physical activities (e.g., exercising, going for a walk). Sonnentag (2001) suggested social activities enhance recovery by providing opportunities for social support, which is shown as increasing psychological well-being. Besides, those resources required for the workday are not employed for such activities, which enables resource recovery. Next, physical activities have an impact on recovery through two possible mechanisms. First, these activities provide a cognitive distraction from work-related demands. Second, both enhanced levels of body temperature and secretion of serotonin and dopamine hormones result in the improved mood (Bakker et al., 2013). As a result, physical activities are helpful for maintaining mental and physiological well-being.

Empirical evidence on social activities and particularly physical activities show more consistency regarding favorable effects on recovery (e.g., Sonnentag & Natter, 2004—increased vigor at bedtime; Sonnentag & Zijlstra, 2006—decreased need for recovery) with less null findings and almost no harming effect (exceptions; social activities on depression, Sonnentag & Natter, 2004; active leisure on fatigue, van Hooff et al., 2011), implicating the high recovery potential of those activities. Yet again, the happiness level might moderate the positive impacts of social and physical activities. Because active leisure requires effort to some degree, the

unpleasantness of the activity may inhibit the potential recovery. If social activities do not provide any social support, or if physical activities are engaged with the feeling of obligation, one might regret the time and effort allocated for these activities, signaling a failure to build resources.

> H_6: Time spent on active leisure in the evening is positively related to (a) work engagement and (b) positive affect the next day if happiness during such activities is high.

2.6 Reattachment to Work and Well-being

Sonnentag and Kühnel (2016) introduced the concept of *reattachment to work*, defined as "the process of rebuilding a mental connection with one's work as an important experience at the home–work interface." They argued that in addition to the role of detachment from work on recovery-related outcomes, switching to the work mode after an off-job period.is likewise important. That is, psychological detachment does not guarantee work-related and general well-being for the next day if one is unable to reattach to work again the next day.

Sonnentag and Kühnel (2016) showed that reattachment to work before the formal workday started predicted work engagement during the workday. They suggest this relationship can be explained by three mechanisms. First, by reattachment, one activates the work in the mind and realizes the work-related tasks again. This early mental awareness results in considering the necessary energy for upcoming work tasks and allocating energy accordingly, already before the workday starts, which helps to be vigorous during the workday. Second, reattachment helps one shift one's attention from nonwork to work by putting nonwork issues into the background and transiting to work mode before the workday. This increased on-task focus facilitates absorption to work and decreases the need for self-regulation. Third, even when reattachment leads to anxiety regarding upcoming work events, one can still benefit from reattachment by allocating resources

(e.g., social support, time management) to deal with the workday, which might keep engagement levels high, or at least less decreased. Thus, we expect reattachment to work in the morning is positively related to work engagement during the workday, aiming to replicate Sonnentag and Kühnel's finding in a different sample.

Next, we expect reattachment leads to enhanced positive affect during the day. Even though Sonnentag and Kühnel (2016) suggest that reattachment does not necessarily denote an affective state but rather, a neutral affective tone and a mental activation of work-related state of mind, it might lead to self-control and efficiency at work that can consequently give the feelings of satisfaction and accomplishment. Furthermore, engagement to work is a positive state in itself that brings positive affect. Put differently, state positive affect may increase alongside state work engagement as a result of reattachment to work. In line with current information, we formulate our final hypothesis.

> *H7*: Reattachment to work in the morning is positively associated with (a) work engagement and (b) positive affect during the day, controlling for previous day's psychological detachment and off-job activities.

2.7 Stress and Well-being in Academia

Increasing concerns regarding stress and well-being of academicians have stimulated research on faculty stress and well-being from several countries (UK; Darabi, Macaskill, & Reidy, 2016; Ireland; Hogan, Hogan, Hodgins, Kinman, & Bunting, 2014; South Africa; Rothmann & Jordaan, 2006; Australia; Bell, Rajendran & Theiler, 2012; Boyd et al., 2011). In their systematical review of studies about academic staff, Guthrie et al. (2017) manifests that university staff predominantly report they found their job stressful, and the prevalence of burnout appears up to 37% in the academic community—which is considerably higher than other

professional groups and is comparable to ‘high-risk’ occupational groups such as healthcare workers (Watts & Robertson, 2011).

Academics’ exposure to high stress appears to be due to mainly two reasons. The first reason is the high workload that results from multiple job demands including teaching, research, and university service (Kinman & Jones, 2014, p. 39). The second reason is the unbounded nature of academic work (Hallstein & O’Reilly, 2012, p. 19–20) which means a lack of clear boundaries between work and life outside of work. Specifically, academic work is not fully completed during formal working hours, as opposed to most of the other professional groups, but is mostly taken home during evenings and weekends. This signals that academics might be particularly vulnerable to insufficient recovery from work. Hogan et al. (2014) suggest that this unbounded culture might lead academics to work longer hours, which make them prone to work–life conflict and psychological strain.

Based on the above review of findings, examining recovery from work in faculty members appears to be crucial. Hence, our study sample is comprised of academics. We examine how academics’ daily off-job time use affects their positive affect and engagement at work. Dubbelt, Rispens, and Demerouti (2016) showed in their diary study that academics’ daily work engagement was related to the number of publications over the next three years. Thus, the present study might have practical implications for academicians to recommend how to use their time for having recovery opportunities on a daily basis and improving their academic productivity.

CHAPTER 3

METHOD

3.1 Sample and Procedure

The present study was designed as a quantitative daily diary study. Data was collected at a nonprofit private research university in Istanbul, Turkey, from academic faculty members including professors, lecturers, and postdoctoral researchers. Graduate students were not targeted to have a homogenous sample in terms of age and educational level. Three criteria should have been met for participation in the study. First, participants should have been native Turkish speakers. Second, the academic staff from Psychology, Medicine, and Nursing departments were excluded due to their potential familiarity with the study topic. Lastly, faculty members who were abroad during the data collection period were excluded.

Participants were recruited with convenience sampling through email and/or personal contact. Specifically, academicians were initially approached upon availability. Through personal contact, they were briefly informed about the study and asked whether they were interested in participating. Postdoctoral researchers were accessed through professors and graduate students because this information was not available from the university website. Seventy-five academics out of the 185 contacted academics agreed to participate in the study, resulting in a 40.54% response rate. This is not a low response rate considering that diary surveys are regarded as burdensome (Hektner, Schmidt, & Csikszentmihalyi, 2007), and e-mail invitations might have gone unnoticed especially among academicians who are known to receive high numbers of emails per day (Sappleton & Lourenço, 2016). Of the data from 75 participants who agreed to participate, data from two participants had to be canceled due to insufficient and retrospective completion of daily surveys leading to a final sample of 73 academic faculty members.

Data was collected through questionnaires in paper-and-pencil format. Even though our sample has no difficulty in accessing the internet, we still preferred this format to online surveys for the convenience to the participants, especially in the bedtime surveys. All scales were in Turkish via back-translation method, or if available, scales already validated in Turkish were used. Participants were provided with a survey package including (1) an informed consent form describing the study and assuring confidentiality, (2) a baseline questionnaire, (3) nine daily surveys (including bedtime, noon, and evening surveys for three days), and (4) envelopes to return the surveys. The baseline questionnaire includes questions regarding demographic information such as gender, age, parental status; and stable characteristics such as dispositional negative affectivity. Participants then started to fill out the daily surveys for three consecutive days over a period of one week—i.e., Monday night through Thursday evening.

The daily diary surveys comprised of three types: *(T1) The bedtime survey* was responded to before bedtime and included scales regarding off-job activities as well as psychological detachment from work during that evening; *(T2) the noon survey*, including the reattachment to work scale, was completed anytime between 11 a.m. and 1.30 p.m.; and *(T3) the evening survey*, which was completed before leaving the workplace, involved the state work engagement and state positive affect scales. On Monday, participants only responded to the bedtime survey. On Tuesday and Wednesday, they filled out the daily surveys three times a day. Lastly, on Thursday, the study was completed for participants after they responded the afternoon and evening scales. Each survey was designed to take no more than 3–4 minutes in one sitting to decrease the burden of the participants (Reis & Gable, 2000; Sonnentag & Geurts, 2009). Table 1 shows a summary of the study measures.

Table 1

Summary of study measures

Measurement Occasions	Variables
Baseline Questionnaire Time 0 (Before diary surveys)	Demographic variables(i.e., gender, age, marital status); Trait work engagement; Dispositional negative affect
Time 1 (bedtime) Monday, Tuesday, Wednesday	Off-job activities after work (Amount of time, happiness); Psychological detachment from work
Time 2 (noon) Tuesday, Wednesday, Thursday	Reattachment to work
Time 3 (evening) Tuesday, Wednesday, Thursday	State work engagement; State positive affect

Data collection was started as follows. After participants agreed to participate in the study, the researcher delivered the survey packages to the participants in face-to-face meetings and retrieved their signed informed consent form prior to participating in the study so that survey packages did not have any identifier information when returned. Participants initially filled out the baseline questionnaire and begin the diary part of the study on a Monday night in their available weeks. Due to the vast number of questionnaires, reminder messages were sent to the participants for each daily survey via e-mail. They continued until the last survey on Thursday evening. When the participants returned their completed surveys, they were asked whether the study was exhaustive, and there was no complaint about the time spent on surveys.

The final sample consisted of 73 academic members who have at least a postgraduate degree. The mean age was 37.49 (*SD* = 6.85; range 29 to 65 years), and the participants were 37 females (50.7%) and 36 males (49.3%). Regarding the academic title, there were 12 associate (16.4%) and 24 assistant professors (32.9%), 13 instructors (17.8%), and 24 postdoctoral researchers (32.9%). Full professors were not approached during the data collection due to

potential failure to reach them via e-mail. 56.2 % of the respondents were married, and one person did not provide marital status information. Out of 73 participants, 15 of them have at least one child. Among 15 participants, nine of them have a child younger than the age of six. The average job tenure was 5.74 years (*SD* = 5.15), organizational tenure was 3.79 years (*SD* = 4.61), and weekly work hours was 44.87 hours (*SD* = 10.43). Only five participants had a leadership position.

3.2 Diary Measures

Daily off-job activities. In the bedtime survey (T1), participants reported how they spent their evening (i.e., off-job time). They were provided with six activity categories and their descriptions, mostly based on Sonnentag (2001)'s categorization with some modifications. Categories include (a) work-related activities, for example, preparing a presentation, finishing a work task after work hours; (b) household activities, for example, ironing, cleaning the house, buying groceries; (c) low-effort activities, such as lying on the couch, watching television, reading a book; (d) social activities, such as having dinner with friends, calling a friend, going to a party; (e) physical activities, such as exercising, going for a walk, dancing. As explained in the hypothesis development, for the sixth activity type, Sonnentag (2001)'s category of childcare activities was modified and introduced as "family- and child-related activities". The examples of this category include having dinner together as a family, play activities with children, and also several childcare-related activities (e.g., dressing the children, picking them up from school). After the given descriptions of activity categories, participants were asked to indicate the time spent on the off-job activities in hours and minutes on that respective day. On average, participants spent about 64 minutes on work-related activities, 42 minutes on household activities, 59 minutes on family- and child-related activities, 85 minutes on passive activities, 34 minutes on social activities, and 20 minutes on physical activities. Due to methodological issues,

social and physical activities are combined into the category of *active leisure* as in van Hooff et al. (2011). Average time spent on active leisure activities was calculated by summing the time spent on social and physical activities, resulted in 54 minutes on average. Next, *happiness during off-job activities* was measured with a single item ("How happy did you feel during this activity?") as in Oerlemans et al. (2014), on a scale ranging from 1= *Not happy at all* to 5 = *Extremely happy*.

Psychological detachment. We measured psychological detachment from work in the bedtime survey with the 4-item Psychological Detachment subscale of Recovery Experience Questionnaire (Sonnentag & Fritz, 2007), adapted for daily assessment. The responses were on a scale ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*. Sample items were "Today during my off-job time I forgot about work" and "Today during my off-job time I distanced myself from my work." The mean alpha reliability score was .93 across three days indicating good reliabilities.

Reattachment. Participants reported their levels of reattachment to work in the noon survey to a 5-item scale developed by Sonnentag and Kühnel (2016) on a response scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. One sample item was "Before I started my work this morning, I mentally tuned into my work." The mean alpha reliability was .76.

State work engagement. We assessed daily work engagement before leaving the workplace with the 9-item Utrecht Work Engagement Scale (UWES-9; Schaufeli, Bakker, & Salanova, 2006), shortened from the 17-item UWES-17 (Schaufeli et al., 2002). The scale was adapted for daily assessment and validated by Breevaart, Bakker, Demerouti, and Hetland (2012). The scale was adapted into Turkish and validated among Turkish employees by Eryılmaz and Doğan (2012). The response scale ranges from 1 = *Strongly disagree* to 5 = *Strongly agree*.

Sample items were “Today, I felt happy when I was working intensely” and “Today, I was enthusiastic about my job.” The mean alpha reliability was .921.

State positive affect. We assessed participants’ daily levels of positive affect at the end of the workday with the 10-item Positive Affect subscale of the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988). The scale was adapted into Turkish and validated among Turkish students by Gençöz (2000). The participants were asked to report how they feel at that specific moment (i.e., before leaving the workplace). The items include 10 adjectives (e.g., interested, excited), responded on a 5-point Likert scale (1 = *Very slightly or not at all*; 5 = *Extremely*). The mean alpha reliability was .93.

3.3 Baseline measures

Baseline questionnaire included demographic variables such as gender, age, marital status and the number of children, and work-related variables such as academic status (e.g., assistant professor, lecturer, postdoc) and weekly work hours. The responses were obtained with single questions for each.

Trait work engagement. We controlled for the participants’ trait levels of work engagement in the data analysis. Even though the present study concentrated on within-person processes that fluctuate from day-to-day, it is of importance to assess whether there are between-person differences and whether the observed day-level relationships among day-level constructs are over and above the general tendencies across individuals. Breevaart et al. (2012) stated that even though work engagement is mostly a transient state that changes from day-to-day, some people might be more likely to experience work engagement. Trait level of work engagement was measured with the 9-item UWES-9 (Schaufeli et al., 2006), shortened from the 17-item UWES-17(Schaufeli et al., 2002). Different from the assessment of state work engagement, participants were asked to report how much engaged they are to work in general. A 5-point Likert scale was

used (1 = *Not like me at all*; 5 = *Very much like me*). One sample item was "I feel happy when I am working intensively." The reliability alpha score was .87.

Dispositional negative affect. We controlled for participants' trait level of negative affect due to its potential impact on day-level well-being variables (e.g., Kühnel, Sonnentag, & Westman, 2009; Sonnentag et al., 2010). Burke, Brief, and George (1993) supported that negative affectivity has an impact on the relationship between recovery experiences and well-being. The variable is measured with 10 items from the PANAS (Watson et al., 1988). The items were composed of 10 adjectives (e.g., nervous, upset), responded on a 5-point Likert scale (1 = *Very slightly or not at all*; 5 = *Extremely*). The reliability alpha score was .83.

3.4 Analytical strategy

Considering the multilevel structure of the current data in which daily observations (i.e., level 1) were nested within individuals (i.e., level 2), the present study employed a multilevel analysis approach using the software Mplus 7.4 (Raudenbush & Bryk, 1992; Muthén & Muthén, 1998–2012). The person-level variables (level 2; e.g., gender and age) were centered at the grand mean, and the day-level predictor variables (level 1; e.g., reattachment) were centered at their respective person mean.

To create the interaction term between time spent on off-job activities and happiness during the activities, time and happiness scores for each activity were centered at their respective person's mean, and the products of these centered scores were taken as interaction terms. To test the moderating effect of happiness during off-job activities, simple slopes were tested using the computational tools developed by Preacher, Curran, and Bauer (2006).

CHAPTER 4

RESULTS

4.1 Descriptive Statistics

Table 2 presents the means, standard deviations, and zero-order correlations of the study variables. Intraclass correlation coefficients (ICC) were calculated to determine the amount of variance explained by the different levels of the data. Results show that 62.4% of the variance of the state work engagement variable and 50.5% of the positive affect variable are accounted for by within-person variations. For the variables of psychological detachment and reattachment, 54.4% and 63.7 % of variances can be attributed to within-person variations, respectively.

4.2 Hypothesis Testing

To test the study hypotheses, multilevel regression analyses predicting state work engagement and state positive affect were performed separately. Control variables were gender, age, and trait work engagement when predicting state work engagement (hypothesis 1a to 7a); and gender, age, and dispositional negative affect when predicting state positive affect (hypothesis 1b to 7b).

Table 3 presents the three nested models predicting state work engagement. In Model 1, between-person variables (i.e., gender, age, trait work engagement) and psychological detachment were entered into the equation. Next, the main effects of time spent on, and happiness experienced during the five off-job activities, and their interaction terms were entered in Model 2. Finally, reattachment was entered in Model 3. Model 1 revealed that gender does not have a significant association with state work engagement, whereas age has a marginally significant positive relationship. As expected, trait work engagement has a significant association with state work engagement.

Table 2

Means, standard deviations, and zero-order correlations between study variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Gender (Female)	—	—	—							
2. Age	37.49	6.85	.10	—						
3. Trait Work Engagement	4.02	0.54	−.14	.21	—					
4. Dispositional Negative Affect	1.88	0.58	.19	.14	−.32**	—				
5. Psychological Detachment	2.58	0.94	−.00	.08	.06	−.22	—	−.02	.22**	.15*
6. Reattachment	3.65	0.51	.16	−.10	.15	.01	−.02	—	.10	.39**
7. State Positive Affect	3.06	0.65	−.01	.16	.47**	−.32**	.25*	.09	—	.59**
8. State Work Engagement	3.41	0.60	−.03	.25*	.68**	−.47**	.17	.41**	.68**	—
9. Time Work activities	1.06	0.96	.00	−.04	.10	.02	−.74**	−.09	−.09	−.03
10. Time Household activities	0.70	0.45	.16	.12	−.14	.08	.27*	.06	−.07	−.04
11. Time Family activities	0.98	0.94	.02	.08	.11	.21	.02	.01	.09	.11
12. Time Passive activities	1.41	0.85	−.02	−.05	.06	.01	.12	.14	−.05	−.05
13. Time Active leisure	0.90	0.84	.05	.11	.03	−.12	.31**	−.07	.12	.02
14. Happiness Work activities	2.77	0.84	−.11	.06	.35**	−.29*	.18	.19	.44**	.43**
15. Happiness Household activities	2.88	0.75	−.23	.05	.04	.05	.17	−.19	.02	−.03
16. Happiness Family activities	4.03	0.68	.06	−.31*	.22	.01	.07	.31*	.35*	.26
17. Happiness Passive activities	3.64	0.67	.10	−.04	.08	−.04	.40**	.04	.21	.12
18. Happiness Active leisure	4.00	0.58	.28*	.17	.20	−.06	.18	−.04	.27*	.23

Continued

Table 2 *(Continued)*

Variable	9	10	11	12	13	14	15	16	17	18
5. Psychological Detachment	−.69**	.07	.05	.18**	.29**	.14	.15	.12	.22**	.13
6. Reattachment	−.04	.01	.05	.07	−.07	.20*	−.08	.27**	.12	−.12
7. State Positive Affect	−.05	−.06	.08	.03	.08	.26**	.01	.24**	.18*	.21*
8. State Work Engagement	−.03	−.02	.11	.02	.03	.33**	−.05	.13	.24**	.21*
9. Time Work activities	—	−.16*	−.11	−.24**	−.22**	−.07	−.13	−.09	−.11	−.12
10. Time Household activities	−.30*	—	−.09	.04	−.17*	−.02	.12	−.07	.11	.08
11. Time Family activities	−.13	−.03	—	−.20**	−.22**	.08	.09	.21*	−.06	.05
12. Time Passive activities	−.24*	.11	−.33**	—	−.12	.03	−.08	.05	.17*	.13
13. Time Active leisure	−.21	−.08	−.39**	.05	—	−.02	−.11	.13	.04	.22*
14. Happiness Work activities	−.06	−.11	−.01	.04	.20	—	.18*	.27**	.20*	.18
15. Happiness Household activities	−.11	.25*	.05	−.05	−.15	.04	—	.20*	.27**	.14
16. Happiness Family activities	−.03	−.09	.24	.02	−.10	.23	.12	—	.39**	.39**
17. Happiness Passive activities	−.19	.13	−.09	.19	.16	.09	.17	.39**	—	.28**
18. Happiness Active leisure	−.27*	.09	.11	.07	.16	.26	.01	.38*	.28*	—

Note. Correlations below the diagonal are person-level correlations (N = 73). Day-level variables were averaged across 3 days. Correlations above the diagonal the day-level correlations (N = 214–217 days). Time = Time spent on the activity, Happiness = Happiness during the activity. Mean and SD scores of time spent on activities are presented in the hour format.

*p < .05; **p <.01

Table 3

Multilevel analysis of detachment, off-job activities and reattachment's effect on State Work Engagement

Variable	Model 1			Model 2			Model 3		
	B	*SE(B)*	ß	*B*	*SE(B)*	ß	*B*	*SE(B)*	ß
Intercept	3.366***	.054	7.049	3.290***	.059	6.783***	3.309***	.062	6.534
Gender	.088	.110	.092	.131	.114	.135	.110	.113	.109
Age	.013†	.007	.160†	.016*	.007	.195*	.016*	.007	.186
Trait Work Engagement	.737***	.076	.825***	.746***	.079	.818***	.743***	.077	.780
Psychological detachment	.053	.058	.060	.066	.071	.077	.050	.071	.060
Time Work activities				.046	.070	.058	.058	.068	.075
Time Household activities				.130†	.076	.096†	.174*	.069	.131**
Time Family activities				.143*	.071	.162*	.133*	.065	.155*
Time Passive activities				.017	.092	.020	.051	.090	.063
Time Active leisure				−.010	.051	−.016	.008	.048	.012
Happiness Work activities				.014	.064	.014	.018	.056	.018
Happiness Household activities				−.073	.095	−.063	−.035	.078	−.031
Happiness Family activities				−.191	.145	−.148	−.211†	.123	−.168†
Happiness Passive activities				.238*	.102	.205*	.201*	.094	.177†
Happiness Active leisure				.088	.108	.061	.137	.098	.099
Time × Happ. Work activities				.157	.101	.114	.119	.109	.088
Time × Happ. Household activities				.425*	.181	.174*	.334*	.163	.140*
Time × Happ. Family activities				.236	.256	.090	.174	.268	.068
Time × Happ. Passive activities				.406*	.180	.243*	.469**	.179	.289**
Time × Happ. Active leisure				.220†	.118	.158†	.235*	.102	.173*
Reattachment							.456**	.149	.339**
Level 2 variance—persons (SE)	0.058(0.061)			0.056 (0.058)			0.079(0.058)		
Level 1 variance—days (SE)	0.355***(0.068)			0.273***(0.053)			0.216***(0.039)		

Note. B = unstandardized coefficient; ß = standardized coefficient; *SE* = Standard Error; Time × Happ is the Time × Happiness interaction term for following activities.

* $p < .05$, ** $p < .01$, *** $p < .001$, † $p < .10$

Hypothesis 1a stated that psychological detachment is positively related to state work engagement. Model 1 shows detachment was not a significant predictor of state work engagement (B = 0.053, *SE (B)* = 0.058, ß = .06, p = .361, 95% CI [−.06, .17]), rejecting Hypothesis 1a. Next, Hypothesis 2a suggest time spent on work-related activities during the off-job time is negatively related to work engagement, but not when happiness during such activities is high. Model 2 shows no significant main and interaction effects of work-related activities on state work engagement, rejecting Hypothesis 2a.

Hypothesis 3a was regarding the interaction effect of time spent on and happiness derived from the household activities on state work engagement. Model 2 displays a main effect of time on household activities at the level of marginal significance (B = 0.130, *SE (B)* = 0.076, ß = .096, p = .085, 95% CI [−.02, .28]) as well as a significant interaction effect (B = 0.425, *SE (B)* = 0.181, ß = .174, p = .019, 95% CI [.07, .78]). To get more insight of the interaction effect, we performed simple slope tests using the online calculators of Preacher et al. (2006). As shown in Figure 1, spending time on household activities (at least one *SD* above the mean) has a significant positive association with next day work engagement for those who feel happier (at least one *SD* above the mean) during the activity (B = 0.329, *SE* = 0.047, z = 7.03, $p < .001$). When happiness during the activity is low, time spent on household activities is negatively related to work engagement at the level of marginal significance (B = −0.277, *SE* = 0.157, z = −1.76, p = .078). These findings confirm Hypothesis 3a. Next, Hypothesis 4a suggested that time spent on family-related activities is positively associated with state work engagement when happiness is high. Model 2 did not reveal a significant interaction term (B = 0.236, *SE (B)* = 0.256, ß = .090, p = .357, 95% CI [−.27, .74]); yet, a significant main effect of time spent on family activities on state work engagement was found (B = 0.143, *SE (B)* = 0.071, ß = .162, p = .046, 95% CI [.00, .28]).

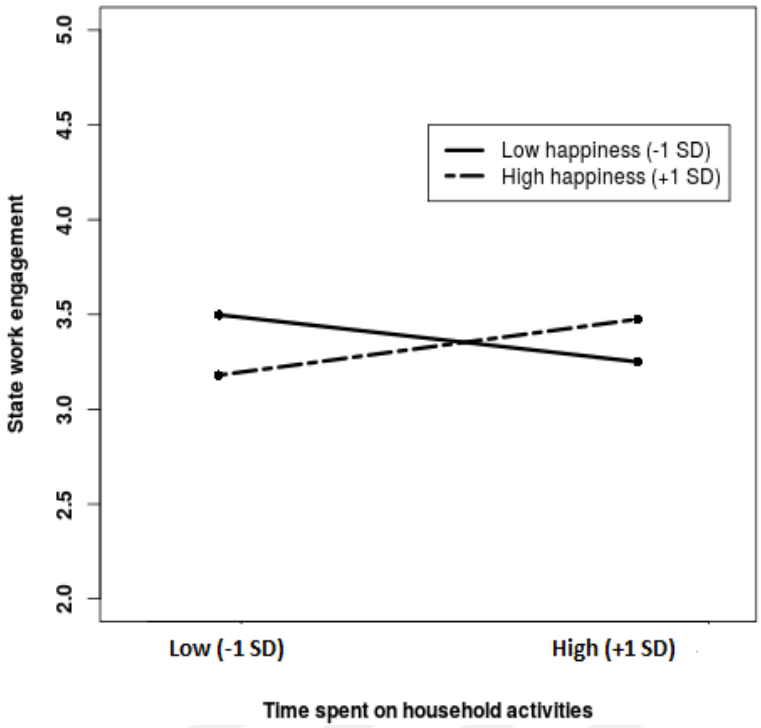

Figure 1. Interaction effect between time spent on and happiness during household activities predicting state work engagement.

In the light of the results, Hypothesis 4a is rejected. The main positive effect of time spent on family activities on state work engagement will be later examined in the Discussion section

Hypothesis 5a was regarding passive activities. As depicted in Model 2, a significant interaction effect between time and happiness of passive activities on work engagement is detected (*B* = 0.406, *SE (B)* = 0.18, ß = .243, *p* = .024, 95% CI [.05, .76]). Results indicate a significant main effect of happiness during the activity as well (*B* = 0.238, *SE (B)* = 0.102, ß = .205, *p* = .02, 95% CI [.04, .44]). Simple slope tests were performed again to understand this interaction effect better.

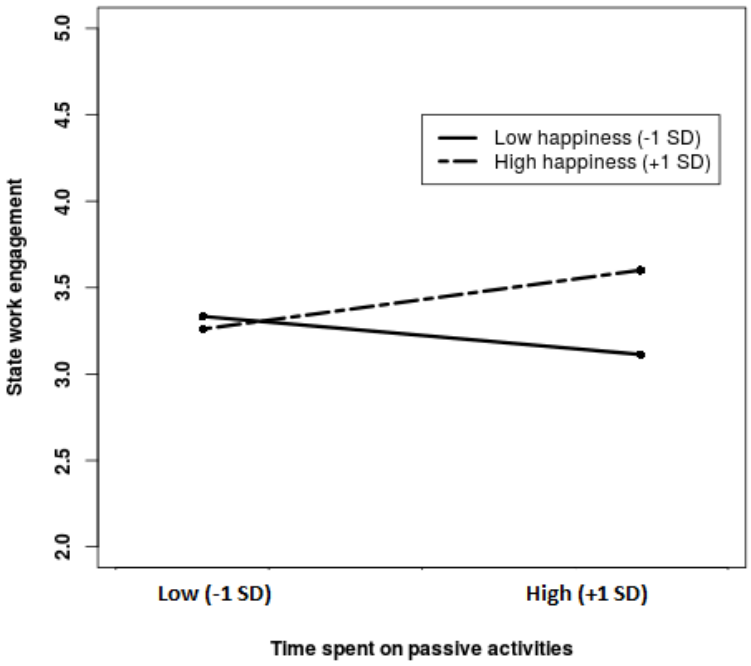

Figure 2. Interaction effect between time spent on and happiness during passive activities predicting state work engagement.

Figure 2 plots the interaction. Results revealed spending more time on passive activities is positively associated with state work engagement when happiness during the activity is high (+1 *SD*; *B* = 0.238, *SE* = 0.12, *z* = 1.99, *p* = .047), but not when happiness is low (−1 *SD*; *B* = −0.154, *SE* = 0.157, *z* = −.98, *p* = .326). Overall, Hypothesis 5a is confirmed.

Hypothesis 6a states time spent on active leisure is positively related to work engagement when happiness during such activities is high. Model 2 revealed no main effects of time and happiness but a marginally significant interaction effect for state work engagement (*B* = 0.220, *SE (B)* = 0.118, ß = .158, *p* = .063, 95% CI [−.01, .45]). The interaction plot is illustrated in Figure 3. Simple slopes were not significant for high levels (+1 *SD*) but for low levels of happiness (−1 *SD*). Time spent on active leisure does not have a significant effect on state work engagement when happiness during activity is high (+1 *SD*; *B* = 0.098, *SE* = 0.103, *z* = .95, *p* = .344).

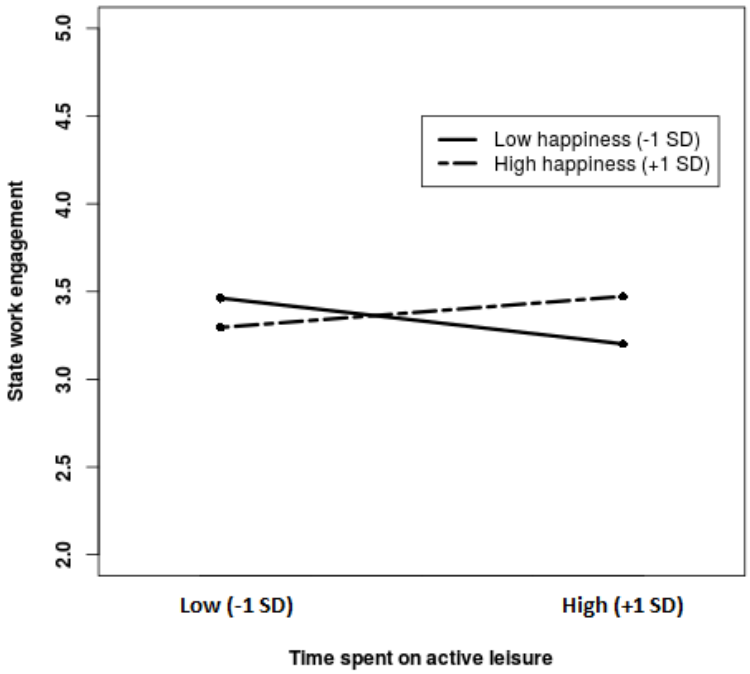

Figure 3. Interaction effect between time spent on and happiness during active leisure predicting state work engagement.

However, when happiness is low, time spent on active leisure activities is negatively associated with state work engagement (−1 *SD*; $B = -0.144$, $SE = 0.046$, $z = -3.12$, $p = .002$). These results partially confirmed Hypothesis 6a. Hypothesis 7a states that reattachment to work is positively related to state work engagement. Model 3 shows that reattachment to work in the morning has a significant positive impact on state work engagement during the day, after controlling for detachment from work and off-job activities the previous day ($B = 0.456$, *SE (B)* = 0.149, ß = .339, $p = .002$, 95% CI [.16, .75]), supporting Hypothesis 7a.

Table 4

Multilevel analysis of psychological detachment, off-job activities, and reattachment's effect on State Positive Affect

Variable	Model 1			Model 2			Model 3		
	B	*SE(B)*	ß	*B*	*SE(B)*	ß	*B*	*SE(B)*	ß
Intercept	3.028***	.096	5.378***	3.026***	.095	5.400***	3.027***	.095	5.389***
Gender (Female)	.052	.140	.046	−.013	.133	−0.012	−0.017	.134	−0.015
Age	.020*	.009	.236*	.022*	.009	0.264*	0.022*	.009	0.261*
Dispositional Negative Affect	−.401**	.118	−.407***	−.389**	.121	−0.396***	−0.390**	.121	−0.397***
Psychological Detachment	.134†	.070	.163*	.161†	.083	0.204*	0.158*	.080	0.200*
Time Work activities				.116*	.053	0.157*	0.117*	.052	0.158*
Time Household activities				.045	.079	0.035	0.055	.080	0.043
Time Family activities				.038	.049	0.048	0.031	.047	0.038
Time Passive activities				.076	.065	0.097	0.086	.064	0.109
Time Active leisure				.010	.049	0.017	0.019	.048	0.032
Happiness Work activities				.000	.078	0.001	0.000	.080	0.000
Happiness Household activities				− .071	.099	−0.066	−0.059	.097	−0.055
Happiness Family activities				−.088	.125	−0.074	−0.092	.123	−0.077
Happiness Passive activities				.068	.094	0.063	0.055	.093	0.051
Happiness Active leisure				.114	.132	0.086	0.121	.130	0.092
Time × Happ Work activities				−.102	.163	−0.079	−0.120	.168	−0.094
Time × Happ Household activities				.071	.201	0.031	0.040	.201	0.017
Time × Happ Family activities				.252	.269	0.103	0.251	.259	0.103
Time × Happ Passive activities				−.031	.181	−0.020	−0.017	.184	−0.011
Time × Happ Active leisure				.354**	.119	0.273**	0.355**	.118	0.274**
Reattachment							0.135	.087	0.106
Level-2 variance—persons (SE)	0.256***(0.047)			0.252***(0.043)			0.253* (0.043)		
Level-1 variance—days (SE)	0.311***(0.050)			0.264*** (0.034)			0.259*** (0.034)		

*$p < .05$, **$p < .01$, ***$p < .001$, †$p < .10$

Next, Table 4 displays the three nested models for state positive affect. In Model 1, person-level variables (i.e., gender, age, dispositional negative affect) and psychological detachment were entered into the equation. Again, the main effects of time spent on and happiness experienced during the five off-job activities, and their interaction terms were entered in Model 2, and reattachment was entered in Model 3. As shown in Model 1, gender has no effect on state positive affect. Older participants reported higher scores on state positive affect. As expected, dispositional negative affect had a strong negative association with state positive affect.

Hypothesis 1b stated that psychological detachment is positively related to state positive affect. Model 1 displays a marginally significant effect of detachment (*B* = 0.134, *SE (B)* = 0.070, ß = .163, *p* = .056, 95% CI [−.00, .27]), providing support for Hypothesis 1b. Next, Hypothesis 2b suggest that time spent on work-related activities during the off-job time is negatively related to state positive affect, but not when happiness during such activities is high. Model 2 indicates no interaction effect but a significant main positive effect of time spent on work-related activities on state positive affect, which was not expected (*B* = 0.116, *SE (B)* = 0.053, ß = .157, *p* = .28, 95% CI [.01, .22]). The positive effects of both detachment and time spent on work-related activities affect will be elaborated in the Discussion section. Overall, Hypothesis 2b is rejected.

Hypothesis 3b was regarding the interaction effect of time spent on, and happiness derived from, the household activities on state positive affect. Model 2 shows no interaction effect for the relationship between time spent on house activities and happiness (*B* = 0.071, *SE (B)* = 0.201, ß = .031, *p* = .723, 95% CI [−.32, .47]), rejecting Hypothesis 3b. Hypothesis 4b suggested that time spent on family-related activities is positively associated with state positive affect when happiness is high. Model 2 shows that interaction is not significant (*B* =

0.252, *SE (B)* = 0.269, ß = .103, *p* = .349, 95% CI [−.28, .78]), rejecting Hypothesis 4b. Hypothesis 5b was regarding passive activities. Model 2 shows no such interaction for time spent on, and happiness during, passive activities on state positive affect (*B* = −0.031, *SE (B)* = 0.181, ß = −.02, *p* = .864, 95% CI [−.39, .32]). Overall, Hypothesis 5b is rejected.

Hypothesis 6b states that time spent on active leisure is positively related to state positive affect when happiness during such activities is high. Model 2 shows the multilevel analyses. Again, no significant main effect of time spent and happiness, but a significant interaction effect is observed, *B* = 0.354, *SE (B)* = 0.119, ß = .273, *p* = .003, 95% CI [.12, .59]. The interaction plot is illustrated in Figure 4. Simple slope analysis revealed that spending more time on active leisure activities was related to high levels of state positive affect when happiness is high (+1 *SD*; *B* = 0.192, *SE* = 0.079, *z* = 2.44, *p* = .015), but negatively related to positive affect when happiness is low (−1 *SD*; *B* = −0.208, *SE* = 0.05, *z* = −4.17, *p* = .001), providing support for Hypothesis 6b. Finally, Hypothesis 7b state that reattachment to work is positively related to state positive affect. Model 3 depicts that reattachment does not have a significant effect on state positive affect, *B* = 0.135, *SE (B)* = 0.087, ß = .106, *p* = .128, 95% CI [−.04, .31], providing no support Hypothesis 7b. Table 5 shows the summary of the hypothesis test results.

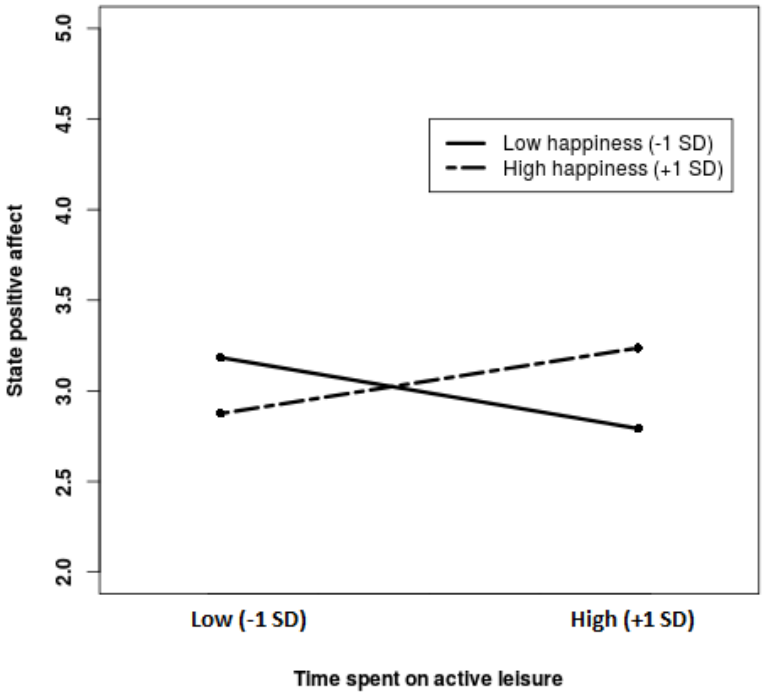

Figure 4. Interaction effect between time spent on and happiness during active leisure predicting state positive affect

Table 5

Summary of hypothesis test results

Hypotheses related to state work engagement	Results	Hypotheses related to state positive affect	Results
1a: Detachment	Not supported	1b: Detachment	Supported
2a: Time x happiness Work-related activities	Not supported	2b: Time x happiness Work-related activities	Not supported
3a: Time x happiness House-related activities	Supported	3b: Time x happiness House-related activities	Not supported
4a: Time x happiness Family activities	Not supported	4b: Time x happiness Family activities	Not supported
5a: Time x happiness Passive activities	Supported	5b: Time x happiness Passive activities	Not supported
6a: Time x happiness Active leisure	Partially supported	6b: Time x happiness Active leisure	Supported
7a: Reattachment	Supported	7b: Reattachment	Not supported

CHAPTER 5

DISCUSSION

Despite the accumulated empirical knowledge on recovery from work, research is scarce with regard to daily recovery experiences of academics. Increasing media coverage on the mental health in academia (e.g., "Academics 'face higher mental health risk' than other professions", 2017; Gorczynski, 2018) highlights the need for examining the potential benefits of daily recovery in academics' well-being and performance. Hence, we examined daily recovery among a sample of academicians via a diary study research design. Specifically, we investigated the effects of psychological detachment from work as well as the multiplicative effects of time spent on and happiness during the off-job activities on two recovery outcomes—state work engagement and positive affect the next day. We also tested whether reattachment to work in the morning predicts these two outcomes, controlling for the previous day recovery experiences. Results revealed no meaningful difference between men and women on the outcome variables. Age had a marginally significant effect on work engagement and a significant effect on positive affect that older participants are more likely to experience high levels of engagement and positive affect at the day level, probably due to seniority and experience (Ramos, Jenny, & Bauer, 2016). Trait work engagement was a strong predictor of state work engagement, highlighting both the relatively stable and fluid aspects of engagement. As expected, dispositional negative affect was negatively related to state positive affect.

Our findings failed to reveal an effect of psychological detachment on state work engagement, contrary to previous study findings (ten Brummelhuis & Bakker, 2012; Sonnentag & Kühnel, 2016). In fact, the impact of detachment on recovery might be more complicated than the hypothesized effect. There is evidence that detachment has a curvilinear relationship with performance (Fritz, Yankelevich, Zarubin, & Barger, 2010) and work engagement (Shimazu et

al., 2016) in that detachment was negatively related to these outcomes in its low and high levels compared to potential advantages at its moderate levels. Sonnentag (2012) suggested that detachment might show its potential at its specific levels and that high detachment might make it more difficult to engage with work again the next day.

We detected some significant interaction effects when predicting work engagement from off-job activities. First, for work-related activities during off-job time, the interaction of time and happiness seemed to have no effect on engagement. Next, as expected, happiness during household activities moderated the link between time spent on these activities and work engagement the next day, in that low levels of happiness decreased but high levels of happiness increased the work engagement. Low happiness during the activity may indicate a preoccupation with work-related thoughts or at least exerted extra effort when already fatigued after a workday (that is, household activities still require effort and consume energy resources). Our result is somewhat in line with Oerlemans et al. (2014) in which low happiness during household activities predicted decreased subjective well-being at bedtime, whereas high happiness did not have an effect. Yet unlike previous studies, we detected a recovery effect suggesting that household activities can even function as a leisure activity if they are enjoyed. This finding is quite important given the strongly assumed—yet not supported—inhibitory effect of household activities on recovery (e.g., Sonnentag, 2001; Sonnentag & Natter, 2004). Results also revealed a direct positive link between time spent on household activities and work engagement despite being at the level of marginal significance. One explanation for this link is the differential natures of academic work and household activities. On the one hand, academic work is characterized by high mental effort. On the other hand, household activities have an active nature and might act as a physical activity—which is consistently shown to be related to well-being outcomes (Rook &

Zijlsta, 2006; Bakker et al., 2013; Oerlemans & Bakker, 2014)—in providing a distance from the high mental effort that is spent during the workday. Another explanation comes from the idea by current social media coverage that housework can be assumed as self-care time if it is in the form of mindfulness activity, where mindfulness means "enhanced attention to and awareness of current experience or present reality" (Brown & Ryan, 2003). An intervention study conducted with 51 undergraduate students found that those in the mindful dishwashing practice reported higher state mindfulness and positive affect, and reduced negative affect than those in control practice (Hanley, Warner, Dehili, Canto, & Garland, 2014).

The interaction effect of time and happiness was not significant for family-related activities, but we detected a main positive effect of time on work engagement, which is not unexpected considering the substantial importance of families for individuals. Although childcare activities were assumed to hamper recovery due to its obligatory and effortful nature, the sole family time seems to have a direct effect on recovery. Even if high happiness was not experienced while engaging in the activity immediately, the recovering effect might come later due to ascribed significance and meaning of the family.

Results unfolded an interactive effect of time and happiness for passive activities on work engagement. That is, time spent on passive activities predicted an increase in work engagement if happiness during the activity is high, but not related to work engagement if happiness is low. Further, happiness during passive activities showed a main positive effect on work engagement. These findings altogether might explain why passive activities are not consistently shown to be related to recovery outcomes when operationalized only by time—. Considering its main effect in our findings, happiness during passive activities appears to matter more than the amount of time. Correspondingly, Waterman (2005) and Oerlemans et al. (2014) have suggested pleasure may be

the only resource that can be acquired through passive activities. In the case of our study sample, academics also might be vulnerable to "academic guilt" while not working (Lobo, 2015, p. 83) because increasing the time devoted to passive activities might be regarded as 'doing nothing' due to the low effort requirements of these activities. The increased guilt of not working might lead to detaining from the possible advantages of passive activities, especially for academicians whose work and nonwork lives are intertwined. Future research might test whether guilt has an impact on recovery during off-job time for academics, especially during passive activities or simple rest.

We detected a notable pattern of interactive effects of time and happiness for active leisure. Specifically, time spent on active leisure had no effect on work engagement when happiness during the activity is high; however, time found to be related to decreased work engagement when happiness is low, implying that active leisure does not always promote, and might even inhibit, recovery. A possible explanation for why low happiness led to a decrease in work engagement is that active leisure—i.e., social and physical activities—requires effort, and individuals might want that active leisure should worth for its effort. If not enjoyed, the effort for these activities might surpass the potential recovering effects, in accordance with the COR model, and might then lead to further resource loss, instead of restoration.

Our second outcome variable, state positive affect, was mostly less related to the study variables. Nevertheless, detachment was found to be related to higher levels of state positive affect, which is in agreement with the previous research showing detachment was related to a high positive mood (Sonnentag & Bayer, 2005; Fritz, Yankelevich et al., 2010). Note that detachment was not related to state work engagement. The differential effects of detachment on the recovery outcomes are noteworthy because detachment seems to predict individual well-being (i.e., positive affect) rather than work-related well-being (i.e., work engagement), at least in our

sample of academicians, an occupational group having problems in detaching from work. Another explanation is that affective resources, as opposed to energetic resources, might be restored during detachment from work. That is, detachment is very much similar to affect regulation strategies (Oerlemans et al., 2014; Parkinson & Totterdell, 1999; Fritz, Sonnentag, Spector, & McInroe, 2010) and found to be related to improved affective outcomes (e.g., Sonnentag et al., 2008).

An unexpected finding was that time spent on work-related activities appeared to relate positively to state positive affect. However, this finding should be interpreted with caution because it is surprising given that detachment (i.e., to refrain work-related activities and thoughts during off-job time) was also positively related to positive affect, making these two findings somewhat contradictory. It can be assumed that people might feel satisfied when they finished a task. This might be true at least for our sample of academics whose substantially high workload can be tackled at home. Heavy workload is a predictor of low psychological detachment from work (Sonnentag, 2012, Smit & Barber, 2016). It might be that working at home for finishing a specific task may decrease the workload and thus help detach from work afterward.

Our findings confirmed the moderating role of happiness in the relationship between active leisure and state positive affect. Particularly, the more time spent on active leisure the previous day, the more likely to experience positive affect during the workday if individuals enjoyed the activity. By contrast, time on active leisure was negatively related to state positive affect if happiness is low. These effects exist over and above the strong negative impact of dispositional negative affect. These findings are particularly important for the off-job activities research. Active leisure (i.e., social and physical activities) was strongly assumed to be beneficial for recovery but our findings suggest that active leisure might even be detrimental to recovery outcomes if happiness is low. What seems puzzling is high happiness did not have an impact on

state work engagement but on state positive affect. A justification for this result might be that active leisure mostly provides opportunities to restore the affective resources through social support (Sonnentag, 2001) and through secretion of antidepressant hormones (Bakker et al., 2013). This may be sufficient for the excess of positive affect that can spill over to the next workday while work engagement might require replenishment of other resources such as energy and attention, but the effortful nature of active leisure might not allow for the restoration of these resources. It appears that we detected merely one out of five interaction effects of time spent on and happiness during the off-job activities for state positive affect. One explanation for this pattern is that state positive affect might be exposed to other factors experienced during the workday that can outweigh the previous day's recovery effects. Among the off-job activities, only the active leisure might be providing an excess of affective resources that can persist during the workday due to the aforementioned benefits of social and physical activities (i.e., social support and antidepressant hormones). Future research might test this hypothesis by measuring positive affect both in the afternoon and at the end of the day and comparing the possible fluctuations. Another explanation is that while not enjoyed, these activities might distract employees so much that engaging with work the next day might be more difficult.

Reattachment to work in the morning emerged as a strong predictor of state work engagement the upcoming workday, mirroring the finding of Sonnentag and Kühnel (2016) in a different sample—i.e., academics. Of note, this association was still strong over and above the powerful effects of trait work engagement and previous day off-job activities. Put differently, reattachment predicted state work engagement incrementally to that of previous day recovery experiences and general tendency for engagement at work. This finding is quite important given that even if employees could not recover from work the previous day, they can still experience high engagement at work by reattaching in the morning. Future research should investigate which

other factors predict reattachment to work. On the other hand, reattachment does not seem to have an impact on state positive affect. This finding is not surprising considering reattachment is not necessarily an affective experience (Sonnentag & Kühnel, 2016) and might only operate through cognitive channels. However, if our sample size was larger, we could have detected a positive effect—even if it was not as strong as the effect on work engagement.

5.1 Limitations, Future Directions, and Practical Implications

Despite its contributions to recovery research, this study is not without limitations. One can discuss that common method variance is a concern given that this study solely relies on self-report data. However, the most informative data regarding recovery can be collected through one's own subjective evaluations. Besides, as a strength, we measured predictor and outcome variables at three separate time points (i.e., detachment and activities at bedtime, reattachment in the morning, work engagement and positive affect in the evening), preventing inflated variation between variables that might happen due to self-reports (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). This is a clear point of separation from Oerlemans et al. (2014), which measured the predictor and outcome variables (i.e., off-job activities and subjective well-being) only at bedtime.

The small sample size is a clear limitation of this study. However, decreased participation to diary studies is not unlikely given that diary studies are perceived as more effortful, due to more than one assessment occasion, than one-time survey studies (Hektner, Schmidt, & Csikszentmihalyi, 2007). Accordingly, several diary studies in recovery literature reported small sample sizes (e.g., Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010; Mojza & Sonnentag, 2010; Derks, van Mierlo, & Schmitz, 2014). Besides, we collected data only from academicians; collecting data from a specific occupational group may also lead to small sample

sizes (e.g., Dubbelt et al., 2016; Sonnentag & Natter, 2004; Sonnentag & Jelden, 2009; Breevaart, Bakker, & Demerouti, 2014). It should be noted that small sample data might increase false negatives meaning that true effect may not be observed due to the scarcity of data points and low power.

The 3-day period of the study might also prevent capturing the daily variations of study variables while most of the diary studies follow a time period of 5 consecutive workdays (Ohly, Sonnentag, Niessen, & Zapf, 2010—for detachment; Sonnentag & Fritz, 2015) or ideally 10 workdays (e.g., Sonnentag & Kühnel, 2016, Oerlemans et al., 2014). Still, we decided to keep the number of days at three to increase the participation as much as possible. Nevertheless, we believe that this is not a big concern considering that within-person variations in variables were not low, and we found support for a number of hypotheses. Thus, it would be valuable that future studies examine the role of happiness during activities in a middle-size sample on a 5- or 10-day period. Another concern due to low sample size is the insufficient number of parents in the sample. Although we detected a main positive effect of time devoted to family activities, we cannot conclude that child-related activities are beneficial for recovery and well-being because our sample is not representative of employees who have children. We recommend using this assessment of family- and child-related activities in a sample including a substantial percentage of parents.

Due to the way of participant recruitment (i.e., convenience sampling), data might be vulnerable to the self-selection bias. Namely, one might concern about whether the study sample is representative of academics who have a high workload because being busy might affect the probability of participation to study. We cannot completely rule out the possibility of the bias, but still, more than 80% of participants reported at least 40 weekly work hours at university, and 38% reported at least 50 hours. Moreover, 35% of the days, participants reported at least 1.5 hours of

working during after-work hours. We believe high working hours show that the study sample is still representative of academics with a high workload.

The data for this study were collected from a single nonprofit private university, limiting the generalizability of findings. In fact, this can also be taken as a strength because organizational factors that might affect the observed relationships were somewhat controlled in this way. Hence, we had a more homogeneous sample and examined the true effects of daily off-job time on work-related and individual well-being. Still, future research should collect data from both a public and a nonprofit private university, assess several organizational factors, and compare to see whether recovery is more likely in one type of university. For instance, several universities are more competitive than others are in Turkey (Erdoğmuş & Esen, 2016), making off-job time more vulnerable to work for some academics.

This study showed that time spent on family activities might promote, or at least do not impede, work engagement. This finding is particularly of importance for academics, who commonly report high levels of work–family conflict (e.g., Torp, Lysfjord, & Midje, 2018). Working during off-job time might prevent employees from engaging in family-related activities. As a result, skipping the potential benefits of family activities on recovery might decrease work engagement. This can even lead to a cycle resulting in more work–family conflict because low engagement at work might decrease work performance during the workday, leading to working more at night. Future research might examine this long-term cycle as well as elaborate on the specific types of family activities that may have differential effects on recovery from work.

Prior research hypothesized that both passive activities and active leisure are beneficial for recovery outcomes rather than one is better than the other (Sonnentag, 2001; ten Brummelhuis & Bakker, 2012; Oerlemans & Bakker, 2014). We have partially supported this notion by

showing that both of them can be advantageous for different outcomes. In our sample, academics' work engagement levels benefited from passive activities only when they are happy and positive affect levels benefited from active leisure only when they are happy. Overall, passive activities seem to have a positive impact on recovery outcomes, but active leisure may even have a hindering effect on them when happiness is low.

Overall, the present study partly confirmed the role of momentary happiness during off-job activities on next day recovery outcomes; work engagement and positive affect. Future research might assess whether happiness qualifies the relationships between off-job activities and other outcome variables. Just as Oerlemans et al. (2014), we assessed affective outcome variables and recommend concentrating on cognitive and behavioral outcomes as a next step. For instance, it might be interesting to uncover whether happiness during off-job time has an impact on objective performance outcomes. This can lead to a better understanding of the role of happiness in recovery processes. A final suggestion is that we examined daily recovery processes of academicians in a short time period, but future work on the cumulative effects of daily recovery is needed to develop effective interventions to prevent faculty burnout.

The present study provides practical suggestions as well. We have supported the idea that academics can benefit from off-job activities that they enjoy in order to recover from work. Thus, academics should be informed about these potential effects of off-job time on their engagement and affect at work and be directed to find and do the activities that enjoy. Specifically, insufficient recovery for a long time can be associated with burnout (Maslach, Schaufeli, & Leiter, 2001). This is detrimental not only for affective well-being but also for research productivity in universities. That is, burnout leads to decreased productivity at work (Blix, 1994) which, in turn, might result in decreased publication numbers for academics.

Another practical implication is regarding the result that academicians can benefit from reattachment. Williams et al. (2018) supported this idea in a human-computer interaction study by performing an intervention with a conversational bot, which is an "artificial intelligence program that attempt to interact with users using the natural language" (Holtgraves, Ross, Weywadt, & Han, 2007). Specifically, Williams et al. developed *SwitchBot* to help increase detachment from work in the evening and reattachment to work in the morning by structured dialogues with employees, and they showed that reattachment was associated with increased self-reported productivity and work engagement among information workers. In line with that study, not only universities but also other organizations might provide training and human-computer interaction programs for reattachment interventions and for enhancing engagement at work.

Taken together, the present study supports the notion that life outside of work has an impact on work. Amount of time spent on activities was mostly insufficient to predict recovery outcomes, but happiness during the activities has a part in qualifying these relationships. Active leisure can be beneficial as well as disadvantageous for recovery-related outcomes. We hope that this study can inspire other researchers to further examine recovery experiences, and we can get a clearer picture of how recovery unfolds in time.

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APPENDICES

APPENDIX A – BASELINE QUESTIONNAIRE

Genel Anket

(NOT: Bu anket sadece bir kere ve günlük çalışması başlamadan önce doldurulacaktır.)

Değerli katılımcı,

Bu anket formunda size kendinizle, aile yaşamınızla ve iş yaşamınızla ilgili genel sorular yönlendireceğiz. Lütfen gerekli yerleri doldurunuz ya da uygun seçeneği işaretleyiniz.

DEMOGRAFİK BİLGİLER

- Cinsiyetiniz: _____
- Doğum yılınız: _____
- Lütfen medeni durumunuzu belirtiniz.: ☐ Evli ☐ Bekar
- Çocuğunuz var mı? Varsa sayısı ve yaş(lar)ını belirtiniz.

  ☐Kız sayısı: ___ Yaşları:_____ ☐Erkek sayısı: ___ Yaşları: _____

İŞİNİZLE İLGİLİ SORULAR

- Akademik unvanınızı belirtiniz: ☐Profesör ☐Doçent ☐Yrd. Doç. Dr.

  ☐Doktora sonrası araştırma görevlisi ☐Okutman (lecturer)
- Kaç senedir akademisyensiniz? (Lisansüstü eğitiminizi, master / doktora, tamamladıktan sonra kaç sene akademisyenlik yaptığınızı soruyoruz) :_____
- Koç Üniversitesi'nde kaç senedir akademisyen olarak görev yapıyorsunuz? _____
- Herhangi bir idari yöneticilik göreviniz var mı? (Örneğin dekanlık, dekan yardımcılığı, bölüm başkanlığı): ☐Var ☐Yok
- Haftada ortalama kaç saat çalışıyorsunuz?_____

A. Aşağıdaki ifadeler işteyken nasıl hissettiğinizle ilgilidir. Lütfen cümleleri dikkatle okuyunuz ve bunların size genel olarak ne kadar uygun olduğunu belirtiniz.

1	2	3	4	5
Hiç uygun değil	Uygun değil	Biraz uygun	Uygun	Tamamen uygun

1. İşimde kendimi enerji dolu hissederim.	1	2	3	4	5
2. İşimde kendimi güçlü ve dinç hissederim.	1	2	3	4	5
3. İşime karşı istekli ve hevesliyim.	1	2	3	4	5
4. İşim bana çalışma şevki verir.	1	2	3	4	5
5. Sabah kalktığımda işe gitmek için istekliyimdir.	1	2	3	4	5
6. Yoğun bir şekilde çalışırken kendimi mutlu hissederim.	1	2	3	4	5
7. Yaptığım işle gurur duyarım.	1	2	3	4	5
8. Çalışırken tamamen işime konsantre olurum.	1	2	3	4	5
9. Çalışırken kendimi işime kaptırırım.	1	2	3	4	5

B. Aşağıdaki ölçek farklı duyguları tanımlayan sözcükler içermektedir. Lütfen her maddeyi okuyunuz ve geçtiğimiz haftalarda ne sıklıkla bu şekilde hissettiğinizi belirtiniz.

1	2	3	4	5
Çok az veya hiç	Biraz	Ortalama	Oldukça	Çok fazla

1. Sıkıntılı	1	2	3	4	5
2. Üzgün	1	2	3	4	5
3. Suçlu	1	2	3	4	5
4. Ürkmüş	1	2	3	4	5
5. Düşmanca	1	2	3	4	5
6. Alıngan	1	2	3	4	5
7. Utanmış	1	2	3	4	5
8. Sinirli	1	2	3	4	5
9. Asabi	1	2	3	4	5
10. Korkmuş	1	2	3	4	5

APPENDIX B – TIME 1 (BEDTIME) SURVEY

Gece Anketi *(NOT: GECE YATMADAN ÖNCE doldurulur.)*

Doldurulduğu tarih _____ Doldurulduğu saat _____

A. Aşağıda bu akşam işten çıktıktan sonra şimdiye kadar yaptıklarınıza dair bazı ifadeler bulunmaktadır. Bunlara ne kadar katıldığınızı belirtiniz.

	Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyorum ne katılmıyorum	Katılıyorum	Kesinlikle katılıyorum
1- Bu akşam iş sonrası vaktimde işi aklımdan çıkardım.	1	2	3	4	5
2- Bu akşam iş sonrası vaktimde iş hakkında hiç düşünmedim.	1	2	3	4	5
3- Bu akşam işimle ilgili konulardan uzak durdum.	1	2	3	4	5
4- Bu akşam işimin gerektirdiklerini yapmaya bir mola verdim.	1	2	3	4	5

B. Sıradaki sorular işten çıktıktan sonra yaptığınız aktivitelerle ilgilidir. Öncelikle size 7 farklı kategorideki aktivitelerin tanımlarını vereceğiz. Lütfen bunları dikkatlice okuyunuz. Sizden bu aktiviteleri bu akşam ne kadar süreyle (dakika olarak) yaptığınızı belirtmenizi istiyoruz. Ayrıca, bu aktivitelerin size ne kadar eğlenceli geldiğini ve bu aktiviteleri yaparken nasıl hissettiğinizi bilmek istiyoruz. Aktivite kategorileri aşağıdaki gibidir.

1- **İŞLE İLGİLİ AKTİVİTELER:** Bu kategori, işte yaptığınıza benzer ya da iş becerilerinizi kullandığınız aktiviteleri içerir. Örnek olarak bir iş toplantısına hazırlanmak ya da işle ilgili bir görevinizi bitirmek (sunum hazırlamak, notlandırma yapmak) verilebilir.

2- **EV İŞİ AKTİVİTELERİ:** Bu kategoriye örnek olarak ütü yapmak, evi temizlemek, çamaşırları yıkamak, akşam yemeğini hazırlamak ya da eve market alışverişi yapmak verilebilir.

3- **AİLE VE ÇOCUKLARLA İLGİLİ AKTİVİTELER:** Bu kategorinin örnekleri çocuklarınızla oyun oynamak, ailece beraber yemek yemektir. Ayrıca çocuğunuzun giyinmesine yardım etmek, yatmadan önceki rutinler (örneğin dış fırçalamak, masal okumak), çocukları okuldan almak ve okula ya da başka aktivitelere götürmektir.

4- **PASİF AKTİVİTELER:** Bu aktiviteler için fiziksel olarak neredeyse hiç efor harcanmaz. Bu kategorideki aktivitelere verilebilecek örnekler televizyon izlemek, dergi okumak, müzik dinlemek ve uzanıp dinlenmektir.

5- **SOSYAL AKTİVİTELER:** Bu kategorinin örnekleri arkadaşlarla akşam yemeği yemek, bir arkadaşı aramak, bir partiye ya da doğum gününe gitmektir.

6- **HOBİLER VE FİZİKSEL AKTİVİTELER:** Hobilere verilebilecek örnekler enstrüman çalmak, resim yapmak ve bahçeyle uğraşmak; fiziksel aktivitelere verilebilecek örnekler egzersiz yapmak, dans etmek ve yürüyüşe gitmektir.

Lütfen bir önceki sayfada tanımlanan aktivitelere bu akşam ne kadar vakit ayırdığınızı belirtiniz. Ayrıca bu aktivitelerin size ne kadar eğlenceli geldiğini ve ne kadar mutlu hissettirdiğine dair soruları aşağıdaki numaralandırmaları kullanarak cevaplayınız.

1	2	3	4	5
Hiç	Biraz	Ortalama	Oldukça	Çok fazla

1a. Bugün işten çıktıktan sonra işle ilgili aktivitelere ne kadar vakit ayırdınız?	…. saat …. dakika				
1b. Bu aktiviteyi yaparken ne kadar mutlu hissettiniz?	1	2	3	4	5
2a. Bugün işten çıktıktan sonra ev işi aktivitelerine ne kadar vakit ayırdınız?	…. saat …. dakika				
2b. Bu aktiviteyi yaparken ne kadar mutlu hissettiniz?	1	2	3	4	5
3a. Bugün işten çıktıktan sonra ailenizle ve çocuklarınızla ilgili aktivitelere ne kadar vakit ayırdınız?	…. saat …. dakika				
3b. Bu aktiviteyi yaparken ne kadar mutlu hissettiniz?	1	2	3	4	5
4a. Bugün işten çıktıktan sonra pasif aktivitelere ne kadar vakit ayırdınız? (örneğin: tv izlemek, dergi okumak, müzik dinlemek ve uzanıp dinlenmek)	…. saat …. dakika				
4b. Bu aktiviteyi yaparken ne kadar mutlu hissettiniz?	1	2	3	4	5
5a. Bugün işten çıktıktan sonra sosyal aktivitelere ne kadar vakit ayırdınız?	…. saat …. dakika				
5b. Bu aktiviteyi yaparken ne kadar mutlu hissettiniz?	1	2	3	4	5
6a. Bugün işten çıktıktan sonra hobiler ve fiziksel aktivitelere ne kadar vakit ayırdınız?	…. saat …. Dakika				
6b. Bu aktiviteyi yaparken ne kadar mutlu hissettiniz?	1	2	3	4	5

APPENDIX C – TIME 2 (NOON) SURVEY

Öğlen Anketi (*Not: 11.00-13.30 arasında* doldurulması gerekmektedir)

Doldurulduğu tarih _____ Doldurulduğu saat _____

Bu anket formunda size bugün işinizle ilgili **<u>çalışmaya başlamadan önce</u>** nasıl hissettiğinize dair birkaç cümle yönelteceğiz. Bunlara ne kadar katılıp katılmadığınızı belirtiniz.

1	2	3	4	5
Kesinlikle katılmıyorum	Katılmıyorum	Ne katılıyorum ne katılmıyorum	Katılıyorum	Kesinlikle katılıyorum

1. Çalışmaya başlamadan önce zihinsel olarak bütün dikkatimi işime verdim.	1	2	3	4	5
2. Çalışmaya başlamadan önce kendimi çalışmaya zihnen hazırladım.	1	2	3	4	5
3. Çalışmaya başlamadan önce yaklaşan iş günü hakkında derinlemesine düşündüm.	1	2	3	4	5
4. Çalışmaya başlamadan önce bugün hangi işleri tamamlamak istediğimi düşündüm.	1	2	3	4	5
5. Çalışmaya başlamadan önce bugün işte nelerle karşılaşabileceğimi düşündüm.	1	2	3	4	5
6. Çalışmaya başlamadan önce dün işte yaptıklarımı hatırlamaya çalıştım.	1	2	3	4	5

APPENDIX D – TIME 3 (EVENING) SURVEY

Akşamüstü Anketi ***(İŞTEN ÇIKMADAN ÖNCE*** *doldurulması gerekmektedir, örneğin akşam 5-6 arası.)*

Doldurulduğu tarih _____ Doldurulduğu saat _____

A. Aşağıdaki ölçek farklı duyguları tanımlayan birtakım sözcükler içermektedir. Lütfen her maddeyi okuyun ve şu anda, yani ofisinizden ayrılmadan önce ne ölçüde bu şekilde hissettiğinizi işaretleyiniz.

	1 Çok az veya hiç	2 Biraz	3 Ortalama	4 Oldukça	5 Çok fazla
1. İlgili	1	2	3	4	5
2. Heyecanlı	1	2	3	4	5
3. Güçlü	1	2	3	4	5
4. Hevesli	1	2	3	4	5
5. Gururlu	1	2	3	4	5
6. Uyanık	1	2	3	4	5
7. İlhamlı	1	2	3	4	5
8. Azimli	1	2	3	4	5
9. Dikkatli	1	2	3	4	5
10. Aktif	1	2	3	4	5

B. Lütfen aşağıdaki ifadelerin **<u>bugünkü iş gününüzde</u>** size ne kadar uyduğunu belirtiniz.

1	2	3	4	5
Hiç uygun değil	Uygun değil	Biraz uygun	Uygun	Tamamen uygun

1. Bugün işte kendimi enerjiyle dolu hissettim.	1	2	3	4	5
2. Bugün işte kendimi dinç ve güçlü hissettim.	1	2	3	4	5
3. Bu sabah uyandığımda işe gitmek için istekliydim.	1	2	3	4	5
4. Bugün işime karşı istekli ve hevesliydim.	1	2	3	4	5
5. Bugün işim bana çalışma şevki verdi.	1	2	3	4	5
6. Bugün yaptığım işle gurur duydum.	1	2	3	4	5
7. Bugün yoğun bir şekilde çalışırken kendimi mutlu hissettim.	1	2	3	4	5
8. Bugün çalışırken tamamen işime konsantre oldum.	1	2	3	4	5
9. Bugün çalışırken kendimi işime kaptırdım.	1	2	3	4	5