

Psychological Availability

**How work experiences spill over
into daily family interactions**

Gerdientje Danner-Vlaardingerbroek

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Psychological Availability
How work experiences spill over into daily
family interactions

Psychologische Beschikbaarheid
Hoe werkervaringen doorwerken in dagelijkse gezinsinteracties

(met een samenvatting in het Nederlands)

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Chapter 1

General introduction

1.1 Introduction

Only a few decennia ago, the role of men and women were quite different. Women were instructed to be a 'domestic goddess' and to 'revere your husband and honor his right to rule you and your children' (Andelin, 1963). The following quote originates from an article that was claimed to cite a home economics high school textbook from 1954, listing ten steps on "how to be a good wife" (Elder, 2000).

"Have dinner ready. Plan ahead, even the night before, to have a delicious meal ready on time for his return. Clear away the clutter. Make one last trip through the main part of the house just before your husband arrives. Run a dustcloth over the tables. Minimize all noise. At the time of his arrival, eliminate all noise of the washer, dryer or vacuum. Encourage the children to be quiet. Prepare yourself. Take 15 minutes to rest so you'll be refreshed when he arrives. Touch up your make-up, put a ribbon in your hair and be fresh-looking. He has just been with a lot of work-weary people. Be happy to see him. Greet him with a warm smile and show sincerity in your desire to please him." (pp. 133-134).

Whether the citation is a genuine excerpt from a real home economics textbook or a fabricated caricature, it is nonetheless a relatively accurate reflection of the mainstream vision of a woman's appointed role in the 1950's (Snopes, 2015). Between the 1950's and today, western society has undergone major changes. One of them is that girls are no longer taught this way of welcoming their husband after his workday. Nowadays, *both* partners come home after their workday, both bringing their own experiences from the workplace into the family. The breadwinner model - where the husband puts in money and the wife runs the household - has given way to dual-earner families, where both have a job. However, the combined responsibilities of both partners can put pressure on their family relationships. For example, how do partner relationships stand when both partners come home after a weary day at work and there is no delicious cooked dinner on the table and no ribbons to decorate ones hair? On top of being successful at work and enjoying a fulfilling partner relationship, both partners are also expected to be good parents for their children. Luckily, work not only brings worries and heavy burdens from which one needs to recover when coming home, but work can also give energy (Van

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Steenbergen, Ellemers, & Mooijaart, 2007). Some workdays may leave the employee frustrated at the end of the workday, but others will bring enthusiasm and satisfaction. Previous research showed that individuals take these different types of 'baggage' or 'workday residuals' home with them, which affects their family relationships, both negatively and positively (e.g., Repetti, Wang, & Saxbe, 2009; Story & Repetti, 2006). However, it remains unclear *how* these workday residuals spill over into the relationships of dual-earner families. Therefore, the general research question of the current dissertation is: *How do negative and positive residuals of the workday spill over into daily family interactions?*

Although the ribbon and the dustcloth sound old-fashioned, or even hilarious, there may be an important lesson that can be learned from the old days. Namely learning to take time to prepare yourself to be 'fully there' for your family members. In the current dissertation, I argue that when an individual is mentally able to be 'fully there' or 'psychologically available' for the partner or for a child, this allows one to empathize with the other and to tune one's interactions in the direction that facilitates the needs of the other, which may enhance the quality of the relationship. In contrast, when the mind of the individual is occupied with work matters, there is no room left to think about how the other would feel or what is on the other's mind, which makes it more difficult to sensitively and responsively interact with the partner or a child. The first and main objective of the current dissertation is to examine *psychological availability* as link between the residuals of the workday and daily family interactions, where psychological availability is defined as one's ability and motivation to direct psychological resources at the partner or child.

In addition to unraveling this spillover process between workday residuals and family relationships in general, the current dissertation aims to disentangle how individuals differ in this spillover process; why is it that some people are able to take their mind off work when they close their office door at five, while others seem to take all their work stress and frustrations home to their partner and children? Of course all individuals will be affected by experiences of the workday to some extent every now and then, but for some individuals this affects their interactions with family members more than for others. Relevant to work-family spillover are for example differences in how individuals manage their boundaries between the work domain and the family domain (e.g.,

Ashforth, Kreiner, & Fugate, 2000). Moreover, a personality characteristic that may shape an individual's boundary management and is also relevant to work-family spillover is dispositional self-control. Therefore, the second aim of the current dissertation is to examine how differences in boundary management strategies and in dispositional self-control are related to work-family spillover.

In this chapter, I will first explain the importance of studying daily family interactions. Next, I will discuss the social relevance of studying work-family spillover, indicated by the increasing prevalence of dual-earner families in the Netherlands. Then I will discuss different approaches to work-to-family spillover in the literature. Finally, I will provide an overview of empirical studies that are present in the work-family literature to date, relevant to the questions how, and for whom the spillover process from work into family relationships occurs.

1.2 Daily family interactions matter

It seems logical to assume that major life events have a major impact on the well-being of individuals and minor events have a small impact. However, major life events - even those as major as winning a lottery or getting paralyzed by an accident - fail to have a substantial lasting impact on well-being (Brickman, Coates, & Janoff-Bulman, 1978; Diener, Lucas, & Scollon, 2006), whereas minor daily or frequent events, for example exercising or attending religious services, seem better predictors for psychological well-being (Mochon, Norton, & Ariely, 2008). Of the many possible daily activities, the best predictors for general well-being were meaningful talk and feeling understood and appreciated by interaction partners (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). Because family members are per definition significant others, these results indicate the importance of positive daily interactions with family members for overall psychological well-being.

Further support for the idea that daily family interactions, or more specifically partner interactions, are important, can be found in the research of Gottman (e.g., Gottman, 1998; Gottman & Silver, 2012). His extensive research and many years of experience as a clinical psychologist with couples led to a very simple conclusion: Compared to couples who divorce, couples who stay together are nice to each other more often than not. More specifically, satisfied couples maintain a five-to-one ratio of positive to negative moments in their daily interactions. Couples heading for divorce, on the other hand, allow that

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ratio to slip below one-to-one (Gottman & Silver, 2012). Another conclusion of his research that points to the importance of daily positive interactions is that one of the most essential predictors of future relationship quality is the use of positive affect in conflict discussions (e.g., interest, affect, humor or validation; see Gottman, Coan, Swanson, and Carrere, 1998). Because it may be difficult to teach couples to include positive affect during their conflict discussions, one particular study of Driver and Gottman (2004) examined how positive affect during conflict discussions can be increased and found that couples' daily positive interactions (i.e., playful initiations for interaction and enthusiastic responses) predicted positive affect during conflict discussions. This implies that minor, daily moments of positive interaction provide a foundation to access positive affect during conflict and may provide an additional avenue for positively altering a couple's relationship (Driver & Gottman, 2004).

Other research indicated the importance of daily family interactions for children. For example, Repetti and colleagues (2012) state that a child's development is shaped by daily interactions within the family. Their work suggests that parents contribute to the development of biological, emotional, and social response patterns in their children and that they can foster better child self-regulation by minimizing chronic stress at home and modeling effective social and emotional responses to daily stressors. In contrast, daily episodes of arguments, hostility, and conflict within the family (i.e., both between parents and children and between parents) act as a source of chronic stress in children's lives, because these are situations to which children must repeatedly respond both emotionally and physiologically (Repetti, Robles, Reynolds, & Sears, 2012). The studies of both parental interactions and of parent-child interactions are only a few of the many examples illustrating the major influence of minor daily interactions on the quality of family relationships. Because the quality of family relationships has been found not only to be related to subjective well-being (Camfield, Choudhury, & Devine, 2009), but also to physical health (e.g., Coyne, Rohrbaugh, Shoham, Sonnega, Nicklas, & Cranford, 2001), the quality of family relationships, in turn, largely affect our quality of life.

This cumulative evidence suggests that daily positive interactions help both adults and children to live happy and healthy lives. Even though most partners have the best intentions for their relationships when preparing their wedding day or when expecting a child, many people have difficulties

maintaining them. In the current dissertation I focus on one of the situations in which positive interactions within family relationships are challenged. A situation that an increasing number of people are facing nowadays: combining work and family responsibilities, and the accompanied spillover between those two domains.

1.3 Work and family spillover

1.3.1 The increasing prevalence of dual-earner families

It is well known that the labor force participation of women in Western Society has increased substantially and significantly in recent years, resulting in a sustained increase in dual-earner families with children. For example in the Netherlands, 40% of the women with a partner and child(ren) participated in the labor market in 1996, which gradually increased to 70% in 2013 (CBS Statline, 2014). Because the percentage of men with a partner and child(ren) participating in the labor market has remained relatively stable (i.e., fluctuating between 88% and 93% from 1996 to 2013, CBS Statline, 2014), the women were responsible for the increasing number of dual-earner families in the preceding years. In the Netherlands, women with a partner and child(ren) mainly work part-time (on average 24.0 hours a week) while their partner usually works full-time (on average 40.6 hours a week; Merens, Hartger, & van den Brakel, 2012). The continually increasing number of dual-earners indicates the importance of studying the effects of combining work and family responsibilities.

In addition to the increasing number of dual-earner families in the preceding years, the importance of studying dual-earner families is further indicated by the policy of the Dutch government for the near future. In the light of the aging population, the Dutch government aims to increase both the labor participation rate of women and the number of work hours of women (Merens et al., 2012). The government therefore initiated different programs to signal and stimulate that the care for children can be easily combined with ambition and having a paid job (Merens et al., 2012). However, when being an employee, partner and parent, individuals have to divide their time and energy between work tasks and family tasks. This may bring along certain consequences, such as spillover between experiences of the workday and family relationships. Therefore, it is useful to investigate what dual-earners should pay attention to

when combining work and family tasks. The following paragraphs provide an overview of previous literature about the consequences of combining work and family responsibilities.

1.3.2 Approaches to work-family spillover

The work-family literature has long been dominated by the view that work and family life negatively affect each other (Greenhaus & Powell, 2006). According to this *conflict approach*, human time, energy, and attention are limited resources (Edwards & Rothbard, 2000; Greenhaus & Beutell, 1985; Voydanoff, 2004). This view implies that time, energy and attention spent at work cannot be invested in the family and vice versa. That is, individuals who spend more time at work will have less time and energy for family tasks. The time pressure and energy depletion associated with work tasks will thus have negative consequences for family outcomes. Only relatively recently, work-family researchers have started to pay attention to the positive effects of role combination. This *enrichment approach* suggests that roles can enrich each other and that individuals can experience a positive exchange between their work and family roles (Edwards & Rothbard, 2000; Greenhaus & Powell, 2006; Wayne, Grzywacs, Carlson, & Kacmar, 2007). Work can offer fulfillment, satisfaction, and energy that can be invested in family life (Van Steenbergen et al., 2007). The enrichment approach thus differs from the conflict approach by suggesting that work can be beneficial for family outcomes.

Empirical studies on the work-to-family linkage have reported support for both the conflict and the enrichment approach. Research based on the conflict perspective examined the negative effect of spillover from work on family relationships, with stress and strain from work lowering family cohesion (Stevens, Kiger & Riley, 2006), increasing marital tension (Hughes & Galinsky, 1994; Matthews, Del Priore, Acitelli, & Barnes-Farell, 2006), marital anger and withdrawal (Story & Repetti, 2006), and impairing parenting behavior (Repetti & Wood, 1997). Other studies have shown that positive work features are linked to for example marital satisfaction (Van Steenbergen, Kluwer, & Karney, 2011) and developmentally sound parenting (Greenberger, O'Neil, & Nagel, 1994).

Although the literature in the work-family area is quite extensive, few studies explicitly examined the effect of spillover on behavior in the family domain. The effects of combining work and family responsibilities that do exist

are often examined by global measures, for example of experienced work-family conflict (or enrichment), family satisfaction, burn-out, or stress (for an overview, see Allen, Herst, Bruck, & Sutton, 2000). However, behavioral measures that ask individuals to describe the degree to which they engaged in specific daily interactions with family members (e.g., angry behavior, withdrawal, or positivity) yield greater specificity than what is provided by global measures (Story & Repetti, 2006). Greater specificity in the outcomes of work-family spillover adds to a more comprehensive understanding of the implications of work-family spillover. Therefore, in the current dissertation, I will assess different types of daily interactions between family members as behavioral outcome measures in the family domain, including interactions between partners and interactions between parents and their children.

1.3.3 Links between work and family: Workday residuals

As mentioned earlier, experiences during the workday can spillover into the family domain by taking home 'baggage' or the 'remains of the workday', that can affect interactions between family members (e.g., Repetti, Wang, & Saxbe, 2009; Roberts & Levenson, 2001). In the extant work-family literature, research that examined or described baggage or remains of the workday is scarce and fragmented. In the current dissertation, baggage or remains of the workday is referred to as 'workday residuals'. One workday residual that is most clearly described as linking mechanism between work and family is negative mood. Spillover by negative mood is explained by the fact that work can create feelings of irritability, tension or frustration (i.e., negative mood), which are carried home and increase the likelihood of conflictual family interactions. This is sometimes referred to as the 'negative mood spillover model' (e.g., Story & Repetti, 2006). Several studies showed that a negative mood induced by work was associated with increased negative partner interactions (e.g., Barling & MacEwen, 1992; Schulz, Cowan, Cowan, & Brennan, 2004; Story & Repetti, 2006) or parent-child interactions (e.g., MacEwen & Barling, 1991; Menaghan & Parcel, 1991; Repetti & Wood, 1997; Sallinen, Kinnunen, & Ronka, 2004). Occasionally, cognitive processes such as concentration difficulties (Barling & MacEwen, 1992), rumination about work problems (Carlson & Frone, 2003) or work distractions (Cardenas, Major, and Bernas, 2004) have been considered as explaining mechanisms of the work-family spillover process. Finally, feelings of

exhaustion induced by work have also been found to interfere, either explicitly or implicitly, with optimal functioning in the partner or parental role (Crouter, Bumpus, Head, & McHale, 2001; Galambos, Sears, Almeida, & Kolaric, 1995; Roberts & Levenson, 2001).

To date, there is no empirical evidence available to show that positive workday residuals link the work and family domain. Supported by indirect evidence, I suggest that positive workday residuals like positive mood and vigor can serve as workday residuals in the positive spillover between work and family interactions. For example, Song, Foo, and Uy (2008) found that a positive mood induced by the workday was associated with a positive mood at home later that day. A positive mood in general is positively related to the quality of family interactions (Cummings, Davies, & Campbell, 2000). Moreover, in contrast to exhaustion, increased energy (referred to as vigor) in general was related to parental efficacy (Janisse, Barnett, & Nies, 2009). In sum, there are different workday residuals that have been found to explain the link between work and relationship behavior at home, explicitly or implicitly. However, it still remains unclear *how* these residuals of the workday affect family interactions. In the current dissertation, I propose that *psychological availability* can fill this gap.

1.3.4 Psychological availability

An individual that is psychologically available for family members will have enough room in one's mind to, for example, rapidly weigh a sensitive response to the other, or has the capacity to sense whether the other is in need of a thoughtful encouragement. I argue that workday residuals affect the psychological state of an individual, making the individual more or less psychologically available for the partner or child, which can explain the association between workday residuals and family interactions. In the following paragraphs, I will argue how negative workday residuals (i.e., negative emotions, exhaustion, and rumination) reduce the psychological availability for family members. Next, I will argue how positive workday residuals (i.e., positive mood and vigor) can enhance the psychological availability for family members.

Experiences during a workday such as an argument with a colleague or frustration about an unfeasible work task may leave an employee with *negative emotions* after the workday. To regulate these negative emotions, a person needs to attend to the self (Green, Sedikides, Saltzberg, Wood, & Forzano,

2010; Wood, Saltzberg, & Goldsamt, 1990). Attending to the self automatically implies a decrease in resources that are accessible to focus on the interaction with family members, which implies a reduction in psychological availability.

In addition, physical and mental *exhaustion* by work in itself imply a decrease in resources, which leaves fewer resources available for external goals. This suggestion was supported by the results of a study conducted by Roberts and Levenson (2001), who found that work-related physical exhaustion drained energy from individuals and made it more physiologically taxing for them to engage in interactions with their spouse, as evidenced by greater physiological arousal. In addition, mental (stress-related) exhaustion was related to more negative and less positive affect (Roberts & Levenson, 2001). Moreover, mental exhaustion was related to a type of physical arousal that is often found when individuals attempt to regulate their emotions (Gross & Levenson, 1993), and resulted in an even greater reduction of resources than physical exhaustion (Roberts & Levenson, 2001). Thus, I argue that both mental and physical exhaustion are responsible for a reduction in psychological availability for family members.

Finally, *ruminating* about work problems can result in mental preoccupation after work (Carlson & Frone, 2003). Attending to work problems implies that the individual's attention is internally focused, leaving less cognitive capacity to attend to family members. For example, results of Mellings and Alden (2000) suggest that rumination reduces the availability of resources that are necessary to process partner-related information. In a study among dual earner parents, worries about work when they were at home were related to higher cortisol levels (Slatcher, Robles, Repetti, & Fellows, 2010), implying a decrease in their available resources. In sum, I argue that negative emotions, exhaustion, and rumination are related to a reduction in psychological resources and to an inward focus of attention, thus decreasing the psychological availability for family members.

In contrast to negative emotions, *positive emotions* have been found to broaden one's focus of attention and build physical, cognitive and social resources, as described by the broaden-and-build theory of Frederickson (2001). Increased resources or energy in turn has been found to enhance people's mental capabilities of perspective taking (Isen, 2000). Consistent with the broaden-and-build theory, Carver (2003) notes that a positive emotional state

means that there is no problem that requires attention, thereby freeing the person to turn elsewhere. In a study of Tice, Baumeister, Shmueli, and Muraven (2007), results showed that in contrast to the tiring effect of negative emotions, positive emotions increased energy and replenished psychological resources.

In addition, numerous studies found that fulfillment or positive experiences during a workday can result in increased energy, called *vigor* (e.g., Bakker, Demerouti, & Schaufeli, 2005). This means that in contrast to exhaustion as a result of stress or negative experiences at work, an individual can be invigorated by positive workday experiences, implying an expansion of psychological resources at hand. This expansion of resources can be used during interactions with family members. In sum, I propose that positive emotions and vigor can broaden the focus of attention and increase an individual's psychological resources, and therefore increase an individual's psychological availability for family members.

How does psychological availability relate to interactions between family members? Compared to self-interested behavior, which occurs relatively automatically, behavior that promotes relationship quality is often more costly (Finkel & Campbell, 2001). It is easier to grumble at a child that is whining about dinner than to consider a pedagogical sound response. In the same vein, after a long day at the office it can be tempting to withdraw from the partner who initiates a discussion about a difficult subject. To the contrary, positive relationship behavior that fosters the relationship can be much more effortful.

An example of effortful positive relationship behavior is accommodation, which entails a constructive reaction to potentially destructive behavior of the partner (Finkel & Campbell, 2001). To initiate positive interactions, or respond positively to family members who act potentially destructive, requires a certain amount of cognitive resources. Empirical findings suggest that cognitive resources are necessary for positive interactions, because an individual needs to take the perspective of the other into account (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Perspective taking or long-term relationship goals enable one to consider the best way to initiate or respond sensitively to the other's behavior (Dix & Branca, 2003). Engaging in interactions that enhance family relationships thus requires psychological resources that can be focused at family members. Therefore, I argue that psychological availability for family members is crucial for maintaining positive interactions in the family. I will test the hypothesis that

psychological availability links the relationship between workday residuals and the quality of interactions between partners and between parents and their children.

1.4 The role of boundary management strategies and dispositional self-control

The second aim of the current dissertation was to examine *for whom* spillover from work into family relationships is likely to occur. Although all individuals will be affected by work from time to time, some individuals will let work affect their family interactions more than others. In the literature, it is not clear what characteristics indicate whether an individual is more or less sensitive for work-to-family spillover. As Parasuraman and Greenhaus (2002) noted; there is a disproportionate emphasis on environmental and situational factors as the dominant sources of work-family conflict, and a relative neglect of individual differences and psychological characteristics as antecedents of conflict and stress. To fill this gap, I examined a behavioral aspect and a personality characteristic that I considered to be particularly relevant for work-to-family spillover: the boundary management strategy (integration versus segmentation) and dispositional self-control. In the following sections, I explain why and how I think those two aspects might play an important role in work-to-family spillover.

1.4.1 Integration versus segmentation as strategies to combine roles

When individuals combine work and family roles, this implies that they have to switch between roles regularly. Boundary management theory states that roles can be combined by the segmentation of work and nonwork roles, by the integration of work and nonwork roles, and by all options that fall in between those two (Ashforth et al., 2000). Integration implies that roles are entwined and individuals alternate between work and domestic tasks during the day, such as kissing the children goodnight while preparing a presentation for work. Segmentation refers to the strict separation of work and family roles, for example, never answering a work-related phone call while at home or only checking work-related emails during work time.

Among others, Ashforth and colleagues (2000) argue that there are costs and benefits to both segmentation and integration. Greater integration tendencies provide more flexibility and reduce the effort that is needed to switch between roles (Ashforth et al., 2000). Although flexibility is greater for

integrated roles, the chances that roles become blurred (Desrochers, Hilton, & Larwood, 2005) and the amount of distractions within roles (Cardenas et al., 2004) also increase. In addition, more flexibility requires the employee to have certain skills, such as time management skills and the ability to be a 'self-starter' (Desrochers et al., 2005). In contrast, segmentation reduces flexibility and its added benefits, but may protect individuals against distractions and spillover between work and family roles (Rothbard, Philips, & Dumas, 2005).

These theoretical and qualitative studies have helped establish the segmentation-integration distinction as a meaningful continuum for understanding how individuals may choose to manage their multiple roles (Rothbard et al., 2005). However, much of the emerging literature on boundary management has been focused on theory building (Rothbard et al., 2005). To date, few studies examined the effects of the integration or segmentation of roles. Results of these studies seem contradictory, as some found that integration was related to less work-family conflict (Rau & Hyland, 2002) and to more job satisfaction (Rothbard et al., 2005), whereas others found that integration was related to more work-family conflict (e.g., Desrocher et al., 2005; Kossek, Lautsch, & Eaton, 2006; Kreiner, 2006). Moreover, none of these studies examined the effect of integration on outcomes in the family domain. In the current dissertation, I therefore explore how boundary management strategies affect whether work experiences spill over into the family relationships.

1.4.2 Dispositional self-control

Individuals differ in their general or dispositional capacity to regulate the self (Baumeister, Gailliot, DeWall, & Oaten, 2006; Tangney, Baumeister & Boone, 2004). Dispositional self-control or trait self-control is conceptualized as a relatively stable personality trait entailing the degree to which individuals are able to control and inhibit impulses and alter their behavior across time and across situations (Finkel & Campbell, 2001). Dispositional self-control is related to many positive, desirable outcomes such as good grades and work performance, lower risk of impulse control problems like binge eating or alcohol abuse, good psychological adjustment and healthy interpersonal relationships (Tangney et al., 2004). More specifically, the more dispositional self-control both partners have together, the better their relationship quality (Vohs, Finkenauer &

Baumeister, 2011). In addition, Finkel and Campbell (2001) found that after conducting a depleting task, individuals low in dispositional self-control showed a larger decrease in accommodative tendencies compared to those high in dispositional self-control. This suggests that the behavior of individuals high in dispositional self-control is less sensitive to fluctuations in depletion compared to individuals low in dispositional self-control. Apparently, dispositional self-control may play a vital part in determining whether or not the depletion by workday residuals affect the quality of family interactions. Therefore, I propose that dispositional self-control could help individuals to maintain positive interactions in spite of the depletion of psychological resources.

1.5 Overview of the current dissertation

In this dissertation, I report research that examined mediating and moderating mechanisms in the spillover between work and family relationships. More explicitly, I examined how and for whom work experiences spill over into daily family relationships, both partner and parent-child relationship. The first research question is whether psychological availability for the partner or child mediates between workday residuals and family interactions. I tested this mediating role of psychological availability for interactions between partners (Chapter 2 and 4), as well as for interactions between parents and their children (Chapter 3). To more thoroughly investigate the role of psychological availability in the spillover process, I explored the possibility of increasing positive relationship functioning despite an exhausting workday (Chapter 4). The second research question this dissertation aims to answer is whether individual differences make dual-earners more or less sensitive for work-relationship spillover. Proneness to spillover was examined for differences in integration versus segmentation (Chapter 2) and for differences in dispositional self-control (Chapter 3 and 4). The variables that were included in the different chapters are schematically shown in Figure 1.1.

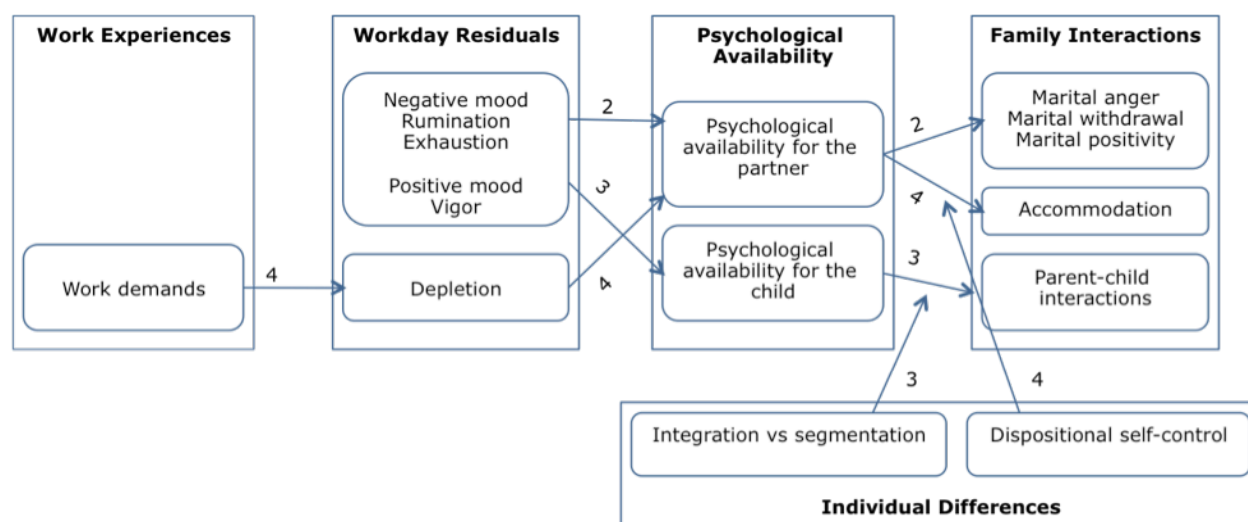


Figure 1.1 Schematic overview of variables included in the different chapters (corresponding chapters next to the arrows).

With the current dissertation, I aim to contribute to the work-family literature by introducing a new linking mechanism between the work and family domain, including a scale to measure it (i.e., psychological availability). Psychological availability complements existing linking mechanisms (i.e. workday residuals) by clarifying their positions and functions in the spillover process and extending the knowledge about how they are related to family outcomes. In addition, I aim to provide an answer to the call for examining individual differences in the spillover process between work and family, which is mainly neglected in previous literature (Parasuraman & Greenhaus, 2002). Moreover, I aim to extend the work-family literature by analyzing a substantial part of the data reported in this dissertation according to dyadic data principles, counterbalancing the overemphasis on the individual level of analyses in the work-family literature (Parasuraman & Greenhaus, 2002).

The empirical papers in this dissertation are all based on self-collected data. For the construction of the daily psychological availability scale I conducted a pilot study consisting of semi-structured interviews among 20 dual-earner couples. Based on these interviews, I constructed the items concerning the accessibility of psychological resources to be directed towards the partner and the child. I tested our hypotheses starting with a survey among a sample of 335 dual-earner couples. The data of this questionnaire were used for the studies in

Chapter 2 and 3. The data of Chapter 4 consist of three smaller sequential data collections among individual dual-earners; for two of them I recruited dual-earners by means of the snowball method, for the final one I recruited participants from the larger survey study.

Chapter 2 describes a study on the role of psychological availability in the process of spillover from work into the partner relationship, to show how negative and positive work experiences hinder or enhance relationship functioning on a daily level. The study reports results on the examination whether negative workday residuals (i.e., negative mood, rumination, exhaustion) and positive workday residuals (i.e., positive mood and vigor) are related to daily partner interactions as perceived by the partner (i.e., marital anger, marital withdrawal and marital positivity). Moreover, the study examined whether these associations were mediated by one's psychological availability for the partner. Dyadic data principles were used in this study, which entails that all constructs were controlled for similar constructs of the partner.

In succession to the spillover of work into partner relationships, Chapter 3 describes a study on the role of psychological availability in the spillover process from work into the parent-child relationship. In addition to the question how spillover occurs, this chapter also investigates for whom experiences at work can affect the daily interactions of parents with their children at home. More specifically, it reports the examination of the association between negative and positive workday residuals (i.e., negative mood, rumination, exhaustion, positive mood and vigor) and the quality of daily parent-child interactions, mediated by psychological availability for the child. In addition, I examined the role of integration as boundary management strategy. Similar to Chapter 2, I analyzed the data according to dyadic data principles.

Chapter 4 describes three studies on the role of dispositional self-control in the work-to-relationship spillover process, aiming to gain further insight in how and for whom the spillover between work and partner interactions occurs. Using both correlational and experimental methods, I report three sequential studies that together examine the spillover from work experiences to workday residuals, via psychological availability into partner interactions. In addition, the studies test whether dispositional self-control prevents negative spillover and promotes positive partner interactions.

Chapter 1

The studies described in Chapter 4 add to the preceding chapters by including work experiences such as work pressure and interactions with colleagues as the source of workday residuals in the spillover process, covering the work domain more explicitly. Moreover, the examination of the family domain is expanded by the examination of accommodation, which comprises the constructive reaction to potential negative behavior of the partner. Because it is easy to be nice to each other in good times but more difficult in hard times, this partner behavior serves as a good indicator of the quality of partner interactions during critical circumstances. In addition, the examination of moderating mechanisms of the spillover between work into daily partner interactions is expanded by dispositional self-control. By examining this personality characteristic, I aim to capture a more underlying reason why it fits some dual-earners better to combine work and family than others. Finally, expanding the correlational studies by an experimental study in the fourth chapter, I aim to add variety in methods and thereby enhance the validity of the results that are reported in the preceding chapters.

I end this dissertation by discussing the research findings. After a short summary of the results, I will address the most important questions answered by this dissertation. What can we conclude about the mediating and moderating mechanisms of work-to-relationship spillover? What are the implications of the findings, and can we use these findings to help dual-earners to function well in their daily family relationships? What questions are left to answer in future research? And finally, I will discuss whether family relationships function better when individuals put a ribbon in their hair, or take some moments to get focused on their family members after work.

Chapter 2

Knock, knock, anybody home? Psychological availability as link between work and relationship¹

¹ This chapter was published as Danner-Vlaardingerbroek, G., Kluwer, E.S., Van Steenbergen, E.F., & Van der Lippe, T. (2013). Knock, knock, anybody home? Psychological availability links work and the partner relationship. *Personal Relationships*, 20, 52-68.

When Adriana comes home at night, she is worn out from a busy day at work and while she is putting away the groceries and starting dinner, she finds herself pondering an argument she had with her colleague that day. In the meantime, her husband Martin is talking about his day at work. Although she is physically present, she does not have the energy or the mental capacity to really hear what he is telling her and to respond adequately. He, in turn, interprets her absent-mindedness as a lack of interest and withdraws behind his newspaper. Interactions like these are undoubtedly familiar to many of those who combine work and family life. Being attentive toward one's partner can be quite a challenge when one is drained from a heavy workday or preoccupied by a nagging work problem. By contrast, we suggest that relationships may also benefit when work experiences are positive. Imagine Adriana coming home at night, bursting with energy because she received positive feedback on a presentation at work. She will probably use this positive energy to be attentive and responsive toward Martin's needs. These seemingly small daily interactions between partners can have a powerful impact on their relationship quality (Bodenmann, Ledermann, & Bradbury, 2007; Gottman, 1998; Gottman, Coan, Carrere, & Swanson, 1998).

Dual earnership is the rule rather than the exception in Western families and is also increasingly common among families with young children (Malinen et al., 2010). In dual-earner families, partners have to divide their time and energy between work and family members. Consequently, work aspects spill over into the family domain (Frone, Russell, & Cooper, 1997), as illustrated by the case of Martin and Adriana. It is well established that stress and strain from work can have detrimental effects on the marital relationship (e.g., Allen, Herst, Bruck, & Sutton, 2000; Hughes, Galinsky, & Morris, 1992; Matthews, Del Priore, Acitelli, & Barnes-Farell, 2006), but are negative consequences all there is to combining work and family? We will argue that it is not and explore the possibility that the marital relationship can also benefit from participating in a job (e.g., Van Steenbergen, Kluwer, & Karney, 2011). Because marital functioning has important implications for the physical and mental well-being of both partners (e.g., Fincham, 2003) and their children (e.g., Van der Valk, Spruijt, De Goede, & Meeus, 2007), the current research will examine how partners' negative and positive residuals of the workday are related to their relationship behavior at home.

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In the extensive and still growing work–family literature, negative experiences in the work role (e.g., workload, arguments at work) have been associated with marital constructs such as lower marital adjustment, higher marital tension, and lower family cohesion (e.g., Hughes & Galinsky, 1994; Larson, Wilson, & Beley, 1994; Stevens, Kiger, & Riley, 2006). In addition, previous studies have aimed to explain by which processes work stress spills over into relationship behavior. Most well known are affective processes (e.g., mood spillover; Schulz, Cowan, Cowan, & Brennan, 2004; Story & Repetti, 2006), but also energy processes (e.g., exhaustion; Roberts & Levenson, 2001) and cognitive processes (e.g., rumination; Carlson & Frone, 2003) have been investigated as spillover mechanisms in previous studies. As will be discussed in more detail below, the general assumption is that negative experiences during the workday cause an individual to be in a certain state, for example, negative mood, exhaustion, or rumination, which subsequently affects relationship behavior at home.

We add to this important work in two ways. First, we address the question *how* negative mood, exhaustion, and rumination, in this paper referred to as workday residuals, are associated with partners' relationship behaviors. To this end, we introduce the concept of *psychological availability*, that is being interpersonally present for the partner and having the mental capacity to actively direct attention to the partner, as a mediator in this process. We will test the general prediction that psychological availability functions as a mediator in the relationship between negative workday residuals and negative marital interactions.

Second, we expand knowledge of work to family spillover by addressing not only negative spillover but also positive spillover. Recently, work–family researchers have come to acknowledge that, besides the possibility of negative interference, work and family can also enhance each other (e.g., Barnett & Hyde, 2001; Gottfried & Gottfried, 2008; Kinnunen, Feldt, Geurts, & Pulkkinen, 2006; Van Steenbergen, Ellemers, & Mooijaart, 2007). Building on this research, we will examine in the present article whether psychological availability mediates the relationship between positive workday residuals (i.e., work-induced positive mood and vigor) and positive marital behavior.

2.1 Spillover between work and marital behavior

The work–family literature generally uses the spillover model as a theoretical framework to explain the association between negative work experiences or work stress and marital behavior. The spillover model posits that negative spillover occurs when an individual is overloaded or frustrated in one role, which undermines one's ability or motivation to meet obligations in another role, thus contributing to withdrawal and anger in interaction, and lowered performance in that other role (Rogers & May, 2003). Most studies examined affective processes as the mediating link between negative work experiences and negative marital interactions. For example, Story and Repetti (2006) identified negative mood as a mediator in the work and relationship spillover. In addition, Barling and MacEwen (1992) found that a negative mood induced by work was associated with increased negative partner interactions. In the same vein, Schulz and colleagues (2004) found that negative affectivity at the end of the workday was related to increased marital anger as perceived by the partner.

In addition to affective processes, exhaustion or diminished energy was also found to explain the work to relationship spillover. In a sample of police couples, feelings of exhaustion induced by the workday were associated with decreased positive affect and increased negative affect during an observed interaction with their spouse later that day (Roberts & Levenson, 2001). Daily diary studies examining the effects of workload or workday pace also suggest that exhaustion from work, in addition to emotional stressors, is associated with subsequent marital withdrawal or anger toward the spouse in the evening (Repetti, 1989; Schulz et al., 2004; Story & Repetti, 2006).

Finally, some studies examined cognitive processes to explain spillover between work and family, but not all specifically measured marital behavior as the dependent variable. In one study, concentration difficulties were found to mediate the link between work experiences and marital functioning (Barling & MacEwen, 1992). Carlson and Frone (2003) found that rumination about work problems while at home can interfere with engagement in family roles. In a similar vein, the study of Cardenas, Major, and Bernas (2004) showed negative correlations between work distractions (thoughts about work) and family satisfaction and performance.

To our knowledge, positive workday residuals have not been associated with marital behavior in the literature until now. However, some studies hint at

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similar processes that explained negative spillover to explain positive spillover. In support of affective processes, for example, Song, Foo, and Uy (2008) found that a positive mood induced by the workday was associated with a positive mood at home later that day. Moreover, in contrast to work-induced exhaustion, increased vigor as a result of the workday of one partner was associated with increased vigor of the other partner (Bakker, Demerouti, & Schaufeli, 2005). This suggests that work not only increased the energy of one individual, but also that of his or her partner.

In summary, prior research has focused on the link between negative work experiences to relationship behavior, via negative mood, exhaustion, and rumination. However, this important work has left two questions unanswered. First, *how* do workday residuals (such as work-related mood, exhaustion, and rumination) affect relationship behavior toward the partner? In the next section, we will argue that workday residuals determine a partner's psychological availability for the other partner, which subsequently affects their behavior toward the partner. Second, we will posit that this process also applies to *positive spillover* of workday residuals (i.e., positive mood and vigor) into relationship behaviors at home.

2.2 Psychological availability

Already in 1979, Piotrkowski posited that work-role experiences affect an individual's psychological state at the end of the workday, making the individual more or less interpersonally or psychologically present in the family role, which subsequently shapes his or her behavior toward the partner. Other researchers in the existing work–family literature referred to this statement, or described comparable assumptions that nicely expound the underlying process linking workday residuals to marital behavior (e.g., Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti, 1989; Rothbard, 2001; Schulz et al., 2004). However, whether an individual is more or less interpersonally or psychologically present as mediator between workday residuals and marital behavior has, to our knowledge, not been explicitly examined empirically to date. Building on this prior work, we introduce the concept of psychological availability, which we define as one's ability and motivation to direct psychological resources at the partner. Being psychologically available for one's partner, for example, means having the mental capacity to focus attention at the partner when he or she is

telling about the workday. Psychological availability can be distinguished from marital behavior because it entails the intrapersonal mental ability and motivation to perform certain interpersonal behaviors, which differs from the actual performance of that behavior.

Our prediction that psychological availability mediates the link between workday residuals and marital behaviors is based on the integration of several theoretical notions and empirical findings. Below, we will argue that negative workday residuals (i.e., negative emotions, exhaustion, and rumination) create a more narrow and internal focus of attention, thus reducing psychological availability for the partner. In addition, we will argue that positive workday residuals create a broadened and externally focused attention thus enhancing psychological availability for the partner.

Negative *emotions*, as a result of an unpleasant workday, have been argued to narrow one's attention and generate an inward focus on the self because they point to a specific threat or problem that needs to be resolved. Resolving a problem requires focusing on the domain of the problem, resulting in the relative exclusion of other things (Carver, 2003). Similarly, negative emotions reduce psychological resources because affect-control and self-regulation processes that are needed to terminate an unpleasant state are effortful (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Wood, Saltzberg, & Goldsamt, 1990). In addition, *exhaustion* from work drains energy resources from an individual (Roberts & Levenson, 2001), resulting in a reduction of psychological resources that are available for other activities. For example, it is more difficult for partners who are tired from work to initiate positive interactions and to inhibit negative responses during marital interactions (Litterst, 1983; Roberts & Levenson, 2001). Finally, *rumination* about work or work problems results in mental preoccupation (Carlson & Frone, 2003), which also implies that the attention of the individual is internally focused. For example, results of Mellings and Alden (2000) suggest that rumination reduces the availability of cognitive resources that are necessary to process partner-related information. In summary, negative emotions, exhaustion, and rumination are related to a reduction of psychological resources and to an inward focus of attention, thus decreasing the psychological availability for the partner.

By contrast, positive emotions have been found to broaden an individual's focus of attention (Carver, 2003; Fredrickson, 2001). A positive *emotional* state

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means that there is no problem that requires attention, thereby freeing the person to turn elsewhere (Carver, 2003), for example, to the partner. In addition, Thayer's (1989) bio-psychological model of emotion processes proposes that positive emotions are linked to bodily arousal, which is associated with the perception of energy. Thus, in contrast to the tiring effect of negative emotions, positive emotions have been found to increase energy or to replenish psychological resources (Tice, Baumeister, Shmueli, & Muraven, 2007) and to enhance people's mental capabilities of perspective taking (Isen, 2000). In addition, numerous studies found that a job can result in increased energy, named *vigor* (e.g., Bakker et al., 2005). This means that in contrast to exhaustion as a result of negative experiences at work, an individual can be invigorated by positive workday experiences, implying an expansion of resources at hand. In summary, because positive emotions and vigor broaden the focus of attention and increase an individual's psychological resources, we expect positive emotions to be related to increased psychological availability for the partner.

How does psychological availability relate to marital interactions? Coming home after a day at work, interactions between partners can vary in the way that is enhancing to couple well-being. Compared to self-interested behavior, such as angry or withdrawing behavior, which occurs relatively automatically, behavior that promotes relationship quality is often more costly and effortful (Finkel & Campbell, 2001; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Empirical evidence suggests that this can be explained by the fact that relationship-enhancing behaviors require the individual to take the perspective of the partner and the relationship into account. This requires more psychological resources compared to self-interested behavior (Rusbult et al., 1991). Because engaging in pro-relationship behaviors requires psychological resources that are focused at the partner (Finkel & Campbell, 2001; Yovetich & Rusbult, 1994), we expect that psychological availability will be positively related to positive marital behavior and negatively to marital anger and withdrawal.

Together, negative workday residuals cost psychological resources and create an inward focus of attention, whereas positive workday residuals replenish the available psychological resources and create a more externally focused attention. Therefore, we expect that negative workday residuals (i.e., work-related negative mood, exhaustion, and rumination about work) hinder an

individual to sensitively focus at the partner (i.e., decreased psychological availability) and hence impede marital positivity and increase the chance of destructive expressions or reactions, like anger toward or withdrawal from the partner (Hypothesis 1). In contrast, we expect positive work-related residuals (i.e., positive work-related mood and vigor) to be related to higher levels of psychological availability for the partner and hence increased marital positivity and decreased marital anger and withdrawal (Hypothesis 2).

2.3 The present research

In this study, we will test our hypotheses among both partners of a large sample of dual-earner couples to examine the significance of psychological availability as a mediator in the spillover of partners' workday residuals into their marital behaviors. We focus on the partner's perceptions of marital behaviors, because partners' perceptions of each other's behavior set the tone for the sequence of interactions between partners (Gottman, 1998; Reis, Clark, & Holmes, 2004). Moreover, by assessing the marital behavior constructs as perceived and reported by the partner, rather than merely focusing on self-reported marital behavior, we prevent potential problems associated with the common method bias that are inherent in cross-sectional studies. Nevertheless, we also assessed self-reported marital behavior to conduct additional analyses. Because children, and especially young children, demand attention that can therefore not be directed at the partner, we control for the number and age of the children.

2.4 Method

2.4.1 Procedure

Couples were recruited by means of brochures that were distributed at primary schools in both rural and urban areas in the Netherlands. Criteria for participation in the study were that partners lived together, had at least one child living at home, both had a paid job, and both worked at least 12 hr per week. Working at least 12 hr per week is the Dutch criterion for labor force participation (Merens & Hermans, 2009). Via these brochures, 650 couples indicated interest in participating in the study. Each of these couples received two questionnaires via regular mail. We asked partners to complete the questionnaires individually at the end of a simultaneous workday that was

followed by some partner interaction during the evening. Questionnaires assessed the work residuals at the end of the workday, the psychological availability for the partner after the workday, and perceptions of one's own marital behavior and the partner's marital behavior during that evening. Upon returning the two questionnaires both partners received a small gift. This resulted in a sample of 335 couples, with a response rate of 51%. This response is comparable to Dutch response rates in household surveys, which vary between 25% and 45% (De Leeuw & De Heer, 2001). Nonresponse was partly due to the fact that partners could not find a simultaneous workday, or because only one of the two partners was willing to participate. For the present analyses, we omitted 22 couples who indicated that one of them worked for less than 12 hours a week, resulting in the final sample of 313 Dutch dual-earner couples.

2.4.2 Participants

The 313 couples were sharing a household for an average of 14.3 years ($SD = 5.2$) and 82% were married (even though not all couples were married, we will use terms like husband and wife, and marital behavior for the sake of clarity). Couples had on average 2.3 children ($SD = 0.8$) ranging from 0 to 23 years of age. The average age of the youngest child living at home was 5.8 years ($SD = 3.5$). The average age of the respondents was 41.8 years for men ($SD = 6.8$) and 39.7 years for women ($SD = 5.7$). Men were contracted to work for an average of 37.4 hr a week ($SD = 7.9$) and women for 24.2 hr a week ($SD = 8.2$). These figures are representative for the Dutch dual-earner population (Merens & Hermans, 2009). Educational level was similar for men and women, with relatively few lower (6.6%) and moderately (21%) educated participants; 72.4% had a college education. High educational levels are typical for the Dutch dual-earner population (Van Gils & Kraaykamp, 2008) and can therefore be found in other Dutch dual-earner studies as well (e.g., Bakker et al., 2005; Demerouti, Bakker, & Schaufeli, 2005).

2.4.3 Measures

In the questionnaire, the following demographic variables were assessed: gender, age, relationship status, relationship length, number and age of children, number of work hours, and educational level. All other items in the questionnaire were assessed using 7-point Likert scales, ranging from 1 (*totally disagree*) to 7 (*totally agree*).

Workday residuals. *Negative workday residuals* were measured by three indicators: negative work-related mood, work-related exhaustion, and rumination about work. Today's negative work-related mood was measured with the six-item Job-Related Affective Well-Being Scale (JAWS; Schaufeli & Van Rhenen, 2006; Van Katwyk, Fox, Spector, & Kelloway, 2000). An example item is 'Today, my job made me feel miserable' (Cronbach's $\alpha = .90$). Today's exhaustion from work was assessed with the five-item Exhaustion subscale of the Maslach Burnout Inventory-General Survey (Schaufeli, Leiter, Maslach, & Jackson, 1996) with items like 'Working today caused me to feel exhausted' (Cronbach's $\alpha = .84$). We assessed today's work-related rumination with six items that were developed in a pilot study. The items are 'After I finished work I still tried to organize things for work', 'After I finished work I kept thinking about things that I need to do at work', 'After I finished work I was distracted by my work', 'After I finished work I could easily distance from my work' (reversed), 'After I finished work my head was still full of work matters,' and 'After I finished work I kept ruminating about work matters' (Cronbach's $\alpha = .83$).

Positive workday residuals were measured with two indicators: positive work-related mood and work-related vigor. For today's positive work-related mood, we used the six-item subscale of the JAWS (Schaufeli & Van Rhenen, 2006; Van Katwyk et al., 2000). An example item for positive mood is 'Today, my job made me feel cheerful' (Cronbach's $\alpha = .88$). Today's work-related vigor was measured with the six-item subscale of the Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006), adapted to ask participants about the past day. An exemplary item for vigor is 'After I finished working today, I felt charged by my work' (Cronbach's $\alpha = .80$).

Psychological availability. Prior to this study, we conducted a pilot study among 20 men and women of dual-earning families with children to develop the Daily Psychological Availability Scale. In semistructured interviews, we asked dual earners to describe how their work affected their interactions with their partner. On the basis of these interviews, we constructed a pool of 20 items concerning the accessibility of psychological resources to be used in the direction of the partner, and we included these 20 items in this study. Consistent with the work of Finkel and Campbell (2001), indicating that the accessibility of resources can either stem from variations in ability or from variations in motivation, we used a mix of statements indicating ability (e.g., 'I was well able

to ...') and motivation (e.g., 'I really felt like ...'). On the basis of exploratory factor analyses on the 20 items in the current research, we selected 8 items that in our opinion best represented the construct and demonstrated high factor loadings on the factor. Refer Table A1 of the Appendix for the items and their associated factor loadings through the confirmatory factor analysis. The scale had good reliability coefficients (Cronbach's $\alpha = .82$ for both men and women). A higher score represents more psychological availability for the partner.

Marital behavior. We used Story and Repetti's (2006) Daily Marital Behavior Scales to assess today's *marital anger* and *marital withdrawal*. We included a self-reported version of marital behavior and asked the partner to report about the marital behavior of his or her spouse, which we refer to as marital behavior as perceived by the partner. Consequently, both spouses responded to questions about their own marital behavior and reported how they perceived the marital behavior of their partner. For marital anger, both partners responded to questions like 'I took out my frustrations on my partner' (self-reported; Cronbach's $\alpha = .91$) and 'My partner complained about something I did' (perceived by the partner; Cronbach's $\alpha = .94$). Both partners responded to questions concerning marital withdrawal like 'I refused to talk about a problem we share' (self-reported; Cronbach's $\alpha = .87$) and 'My partner read the paper/a book/a magazine or watched TV when I would have liked some attention' (perceived by the partner; Cronbach's $\alpha = .91$). For *marital positivity* we used the four-item Positive Behavior subscale (Gable, Reis, & Downey, 2003) that assessed daily positive partner behavior. We assessed self-reported marital positivity as well as marital positivity as perceived by the partner. Both partners responded to questions like 'I was physically affectionate toward my partner' (self-reported; Cronbach's $\alpha = .80$) and 'My partner told me (s)he loved me' (perceived by the partner; Cronbach's $\alpha = .86$).

Control variables. We controlled for the number of children and the age of the youngest child.

2.4.4 Analyses

We used the general strategy of analyzing dyadic data as proposed by Kenny, Kashy, and Cook (2006). Accordingly, we included all variables for both members of the dyad separately in the model, thus using the dyad as unit of analysis (Kenny et al., 2006). To achieve an identifiable model, following dyadic

data procedures, we identified women as Partner 1 and men as Partner 2 in our model (Kenny et al., 2006). As such, men and women in each couple were paired, and effects for men and women were calculated simultaneously in the same model. In line with a typical dyadic data framework, constructs across partners were allowed to covary, enabling to control for the interdependence between partners. Variables were centered on the grand mean across both men and women to facilitate interpretations of nonstandardized parameter estimates (Kenny et al., 2006).

Structural equation modeling (SEM) using Amos was applied to fit the proposed model to the data. We examined the model fit with the χ^2 , the comparative fit index (CFI), and the root mean square error of approximation (RMSEA; see Kline, 2005). A nonsignificant χ^2 indicates a good model fit; however, the χ^2 is sensitive to sample size. The CFI and RMSEA are less sensitive to sampling characteristics and take degrees of freedom into account. A CFI value $\geq .95$ indicates a good model fit and a coefficient $\geq .90$ indicates an adequate model fit (Kline, 2005). An RMSEA value $\leq .05$ is indicative of a good model fit and an RMSEA value $\leq .08$ is indicative of an adequate model fit (Kline, 2005). In addition, we used bootstrapping to test whether the significant pathways running between predictor variables and outcome variables via the mediator did in fact represent significant indirect relationships. Bootstrapping is a statistical resampling method that estimates the parameters of a model and their standard errors strictly from the sample and computes more accurate confidence intervals than the more commonly used methods, such as Baron and Kenny's (1986) causal steps strategy (Preacher & Hayes, 2008).

2.5 Results

2.5.1 Preliminary analyses

We tested the discriminant validity of the Daily Psychological Availability Scale by examining whether the construct of psychological availability was statistically distinct from the workday residuals (i.e., negative mood, exhaustion, rumination, positive mood, and vigor) and the marital behaviors (i.e., marital anger, withdrawal, and positivity). For this purpose, according to the suggestions of Kline (2005), we performed eight sets of confirmatory factor analyses, using structural equation modeling (Table 2.1). Each time, as intended, the proposed two-factor model that distinguished psychological

availability from either the workday residual construct or the marital behavior construct showed a better fit to the data than the alternative one-factor model in which psychological availability was taken together with the other construct. Moreover, the factor structure coefficients (the correlations between the items and the factors) for all psychological availability items showed higher correlations with the psychological availability factor compared to the other factors, providing support for the discriminant validity of psychological availability (Graham, Guthrie, & Thompson, 2003; Kline, 2005).

Table 2.1 Discriminant analyses: Fit indices for proposed and alternative factor models of psychological availability items and other study variable items

Models	χ^2	<i>df</i>	AIC	$\Delta\chi^2$	Δdf
Proposed two-factor model (PA and MW)	853	553	1079.57		
Alternative one-factor model (PA and MW)	1497	554	1721.84	644.26**	1
Proposed two-factor model (PA and MA)	864	549	1098.98		
Alternative one-factor model (PA and MA)	1249	550	1481.31	384.33**	1
Proposed two-factor model (PA and MP)	460	233	594.01		
Alternative one-factor model (PA and MP)	476	234	608.30	16.29**	1
Proposed two-factor model (PA and NM)	478	339	612.47		
Alternative one-factor model (PA and NM)	779	340	911.97	301.50**	1
Proposed two-factor model (PA and EX)	533	289	657.33		
Alternative one-factor model (PA and EX)	889	290	1011.93	356.61**	1
Proposed two-factor model (PA and RU)	537	339	671.44		
Alternative one-factor model (PA and RU)	665	340	797.36	127.92**	1
Proposed two-factor model (PA and PM)	537	339	671.44		
Alternative one-factor model (PA and PM)	665	340	797.36	127.92**	1
Proposed two-factor model (PA and VI)	378	289	502.67		
Alternative one-factor model (PA and VI)	489	290	611.04	110.37**	1

Note. $N = 313$. AIC = Akaike information criterion; PA = psychological availability; MA = marital anger; MW = marital withdrawal; MP = marital positivity; NM = negative mood; EX = exhaustion; RU = rumination; PM = positive mood; VI = vigor. ** $p < .01$.

2.5.2 Model test analyses

Means and standard deviations are reported in Table 2.2. Pearson correlations for all variables are reported in Table 2.3. We first estimated the

hypothesized full-mediation model, including the control variables. We controlled for the number of children and age of youngest child on psychological availability and on the three marital behaviors. The overall fit of the model was good, $\chi^2(129) = 197.90, p < .01$, Tucker–Lewis index (TLI) = .95, CFI = .96, RMSEA = .04. To examine the mediating role of psychological availability, we then compared the hypothesized full-mediation model with an alternative model in which we added direct effects from workday residuals to the marital behaviors. The comparison yielded a nonsignificant χ^2 difference value, $\chi^2(6) = 3.16, p = .79$, suggesting full mediation of psychological availability in the relationship between workday residuals and marital behavior as perceived by the partner. In addition, a second alternative model consisting only of direct effects to marital behavior (from workday residuals and from psychological availability) showed a significantly worse fit to the data, $\Delta\chi^2(4) = 78.21, p < .01$, again providing support for the proposed full-mediation model.

Table 2.2 Means and standard deviations of all variables

Measure	Husbands		Wives	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1. Negative mood	1.67	0.90	1.55	0.98
2. Exhaustion	3.11	1.23	3.10	1.26
3. Ruminating	3.26	1.26	3.15	1.33
4. Positive mood	4.80	1.03	4.99	1.09
5. Vigor	3.69	1.02	3.73	1.11
6. Psychological availability	4.73	0.92	4.59	0.98
7a. Anger (as perceived by the partner)	1.74	1.06	1.97	1.21
7b. Anger (self-reported)	1.84	0.97	2.09	1.11
8a. Withdrawal (as perceived by the partner)	2.50	1.18	2.23	1.07
8b. Withdrawal (self-reported)	2.46	0.97	2.42	0.97
9a. Positivity (as perceived by the partner)	4.35	1.43	4.19	1.35
9b. Positivity (self-reported)	4.20	1.18	4.09	1.29

Note. *N* = 313.

Table 2.3 Bivariate correlations among all variables

Measure	1	2	3	4	5	6	7a	7b	8a	8b	9a	9b	10	11
1. Negative mood	-	.47**	.38**	-.47**	-.30**	-.17**	.00	.13*	.05	.27**	-.06	.01	.03	-.08
2. Exhaustion	.47**	-	.39**	-.44**	-.54**	-.31**	.04	.16**	.06	.36**	-.03	-.05	.07	-.15**
3. Ruminating	.38**	.44**	-	-.18**	-.07	-.23**	.07	.23**	.01	.29**	-.04	.02	.03	-.07
4. Positive mood	-.51**	-.45**	-.38**	-	.62**	.28**	-.12*	-.05	-.11 [†]	-.24**	.07	.19**	-.03	.14*
5. Vigor	-.34**	-.56**	-.27**	.68**	-	.24**	.04	.01	-.04	-.20**	.04	.16**	.00	.08
6. Psychological availability	-.21**	-.33**	-.27**	.34**	.30**	-	-.27**	-.31**	-.34**	-.57**	.34**	.52**	-.11 [†]	.07
7a. Anger ^a	.13*	.12*	.07	-.14*	-.11*	-.19**	-	.53**	.50**	.38**	-.19**	-.01	-.03	-.03
7b. Anger ^b	.31**	.23**	.24**	-.18**	-.05	-.31**	.53**	-	.28**	.57**	-.14*	-.04	-.02	-.02
8a. Withdrawal ^a	.16**	.15**	.08	-.11*	-.13*	-.35**	.57**	.34**	-	.46**	-.27**	-.20**	.06	.02
8b. Withdrawal ^b	.32**	.36**	.23**	-.22**	-.18**	-.59**	.28**	.43**	.44**	-	-.24**	-.27**	.01	-.01
9a. Positivity ^a	-.08	-.06	-.11 [†]	.09	.06	.29**	-.26**	-.15**	-.31**	-.24**	-	.50**	-.06	-.09
9b. Positivity ^b	.06	-.02	-.05	.20**	.16**	.51**	-.13*	-.08	-.20**	-.25**	.47**	-	-.06	.04
10. Number of children	-.15**	-.15**	.04	.11 [†]	.20**	-.11 [†]	.04	.04	.01	.01	-.07	-.11 [†]	-	-.08
11. Age of children	-.02	-.05	.00	.00	.03	.06	-.04	-.05	-.07	-.08	.00	-.08	-.08	-

Note. Values for men above the diagonal; values for wives below. $N = 313$.

^a As perceived by the partner. ^b Self-reported. [†] $p < .10$. * $p < .05$. ** $p < .01$.

To control for gender differences, we examined an alternative model that allowed for differences between husbands and wives. Compared to the model in which gender differences were not allowed, the non-constrained model did not show a significant improvement of model fit, $\chi^2(13) = 14.11, p = .37$. Therefore, path coefficients remained constrained to be equal and are consequently identical for husbands and wives. The control variable number of children was a significant predictor of psychological availability ($b = -.14, SE = .05, p < .01$). The age of the youngest child was not a significant predictor in the model.

Figure 2.1 presents the results of the full-mediation model predicting marital behaviors as perceived by the partner by workday residuals via psychological availability, after controlling for the number of children and the age of the youngest child. Unstandardized parameter estimates are reported because the variances for men and women may differ (Kenny et al., 2006). The results provide support for our expectation that workday residuals are associated with marital behavior as perceived by the partner through psychological availability. Consistent with Hypothesis 1, individuals' negative workday residuals were negatively related to their psychological availability, and their psychological availability was in turn negatively related to marital anger as perceived by the partner and to marital withdrawal as perceived by the partner, and positively to marital positivity as perceived by the partner. In addition, bootstrap analyses were conducted to test the significance of these indirect effects. Results of the bootstrap analyses showed significant indirect effects from negative workday residuals through psychological availability to partner's perceptions of marital anger ($b = .07, SE = .02, p < .01$), marital withdrawal ($b = .11, SE = .03, p < .01$), and marital positivity ($b = -.10, SE = .03, p < .01$). In other words, when one partner reported to be exhausted, in a negative mood, and/or ruminating about the past workday, the spouse was more likely to report that the partner was angry, withdrawn, and less positive during interactions that evening. This association was fully mediated by psychological availability.

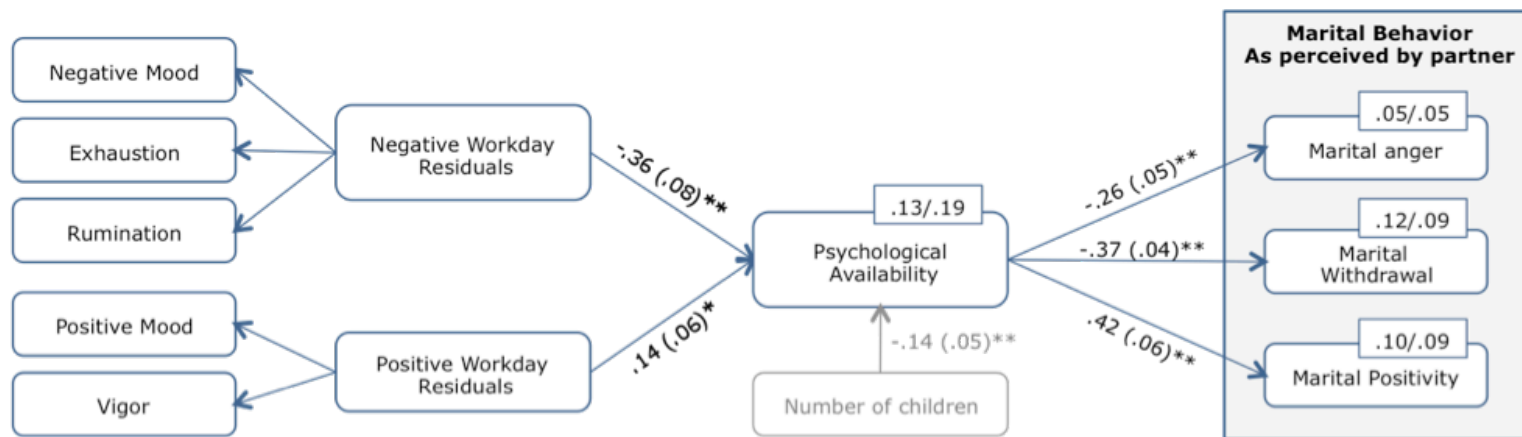


Figure 2.1. Husbands' and wives' spillover from workday residuals into marital behavior mediated by psychological availability after controlling for number of children and age of youngest child (significant control variables are shown in gray).

Note. Unstandardized significant path coefficients (and their standard errors) are shown. Because path coefficients were not significantly different for men and women, all paths are displayed once. Squared multiple correlations for endogenous variables are reported in boxes for husbands and wives respectively. All variables concern self-reports except for marital behaviors, which are reported by the partner. $N = 313$. * $p < .05$. ** $p < .01$.

In line with Hypothesis 2, positive workday residuals were positively related to psychological availability, which in turn related to the three marital behaviors as perceived by the spouse. The more one partner reported vigor and a good mood after the workday, the more this partner reported to be psychologically available for his or her spouse, and this in turn was related to more positivity, less withdrawal, and less anger as perceived by the partner. Results of the bootstrap showed that the indirect effects from positive workday residuals through psychological availability to the partner's perceptions of marital anger, withdrawal, and positivity were marginally significant ($b = -.02$, $SE = .01$, $p = .06$; $b = -.04$, $SE = .02$, $p = .07$; $b = .03$, $SE = .02$, $p = .07$, respectively). This can most likely be attributed to the relatively weaker association between positive workday residuals and psychological availability, compared to the effect of negative workday residuals.

We examined whether the final full-mediation model was replicated using self-reported marital behaviors. This model demonstrated similar, though stronger effects from workday residuals to psychological availability and from psychological availability to self-reported marital positivity, marital anger, and marital withdrawal. Results of the bootstrap showed significant indirect effects via psychological availability in the associations between negative, as well as positive, workday residuals and marital positivity, marital anger, and marital withdrawal. Thus, the difference was that the indirect effects of positive workday residuals on self-reported marital interactions were significant, compared to the marginally significant indirect effects on the perceived partner reports of marital interactions. The variance of psychological availability explained by workday residuals (and not by control variables) was 12% for husbands and 15% for wives. The variance of marital behavior as perceived by the partner that was explained indirectly by negative workday residuals and directly by psychological availability (and not by control variables) for husbands and wives, respectively, was 4% and 5% for marital anger, 11% and 9% for marital withdrawal, and 9% and 7% for marital positivity.

2.6 Discussion

The aim of this study among dual-earner couples with children was to examine psychological availability as a mediator of the association between negative and positive residuals of both partners' workdays and their marital

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behavior at home. In support of our predictions and consistent with previous research, results showed that individuals' negative workday residuals on a particular work day, as indicated by self-reports of work-related negative mood, exhaustion, and rumination, were associated with more anger, withdrawal, and less positivity during marital interaction that evening as reported by their partners (e.g., Bolger et al., 1989; Repetti, 1989; Schulz et al., 2004; Story & Repetti, 2006). Most importantly, this study showed that spillover from workday residuals to marital interactions was mediated by partners' psychological availability for each other. Moreover, our study makes an important contribution to the literature by showing that positive workday residuals (i.e., positive mood and vigor) also spill over into more positive marital behavior at home, which was mediated by psychological availability as well.

In addition, we were able to cross-validate the model that included self-reported marital behavior with the same model that assessed partner reports of these marital behaviors. To date, research that includes partner reports is scarce, and the results rarely confirm the effects found via self-reports (e.g., Repetti, 1989; Schulz et al., 2004; Story & Repetti, 2006). As such, this study furthers our insight into negative and positive work to family spillover. That is, negative and positive work residuals seems to contribute to the psychological availability for the partner, thus setting the tone for marital interactions with the spouse after work.

We argued that a negative mood due to work (Wood et al., 1990), rumination about work problems (Carlson & Frone, 2003), and decreased energy due to a demanding workday (Bakker et al., 2005) diminish one's psychological resources and shift one's focus of attention to the self, so that one cannot optimally attend to the partner. Our results suggest that having less available psychological resources that are directed to the partner is indeed related to decreased pro-relationship behavior, which is in support of earlier research (e.g., Finkel & Campbell, 2001). In addition, our results suggest that positive work residuals can also spill over into marital behavior. Positive workday residuals were related to increased psychological availability, which subsequently related to higher levels of positivity and lower levels of anger and withdrawal as perceived by the partner. This finding is consistent with the notion that positive emotions are associated with a broadened external focus (see Burns et al., 2008; Carver, 2003; Fredrickson, 2001) that can lead to more positive marital

behavior. The indirect effects of positive workday residuals on partner-reported marital behaviors were somewhat less robust than those of negative workday residuals. This might be explained by the 'bad is stronger than good' phenomenon. In general, negative events have a stronger impact than positive ones (Baumeister et al., 2001). On a normal day, more good than bad events are generally expected and bad events will therefore inevitably stand out (Baumeister et al., 2001). We note that the indirect effects of positive workday residuals on self-reported marital behaviors were significant.

Although it is commonly acknowledged that both partners influence the interaction that is taking place between the two partners, surprisingly few studies have systematically examined characteristics of both partners simultaneously to predict marital relationship aspects (Parasuraman & Greenhaus, 2002). Our results showed that marital behavior between partners was predicted by the workday residuals of both husband and wife, via their psychological availability for each other. By introducing and explicitly measuring psychological availability, we begin to understand how workday residuals can be carried home by the individual, and are eventually associated with his or her marital behavior. More generally, the concept of psychological availability can help to understand how external stressors affect partner interactions (Karney & Bradbury, 1995). For example, it might help to understand why couples show more negative and fewer positive interactions after the transition to parenthood (see Kluwer, 2010), in times of financial hardship (Vinokur, Price, & Caplan, 1996), or after the loss of a family member (Wijngaards-de Meij et al., 2008). Stressful events can affect the psychological availability for the partner and therefore hinder positive partner interactions. In addition, results of this study suggest that preventing negative spillover is not the best outcome of combining work with family roles, but provide the opportunity to stimulate positive effects of work that can facilitate positive interactions in the marital relationship.

We examined whether the predicted spillover processes applied to both husbands and wives. The previous literature is not conclusive with regard to gender differences. For example, Story and Repetti (2006) found similar associations between a heavy workload and increased anger and withdrawal for both husbands and wives. However, Schulz and colleagues (2004) found for wives, but not for husbands, that a heavy workload was related to increased withdrawal and anger after the workday. The results of this study did not

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provide evidence for gender differences. This suggests that the spillover of workday residuals into marital behavior via psychological availability is a fundamental psychological process that is similar for men and women (see also Finkel & Campbell, 2001).

Independent of the impact of work, our results showed that the number of children negatively affected psychological availability for the partner. This suggests that psychological availability for the partner is not an infinite resource but that it has to be shared with other family members. This finding could implicate that dual-earner parents can boost their marital relationship by taking advantage of the moments that the children are not around and intentionally shift their attention to their partner. In addition, it should be noted that the spillover between work and the marital relationship can be different for non-parents compared to parents, as was shown by a recent study of Van Steenbergen and colleagues (2011).

The present results raise several interesting questions for future research. For example, future research could extend our work by a more rigorous examination of the process that is unfolding between both partners' workday residuals and their marital interactions after work. For example, using intensive methods such as a daily diary study will provide more information about the causality of associations. Moreover, it is important to assess further consequences of being more or less psychologically available at home due to work, for example, for the parent-child relationship. Parental psychological availability is especially important for children as parents' investments contribute to key child psychosocial outcomes such as attachment security, self-regulation, and cognitive development (Collins, Maccoby, Steinberg, Hetherington, & Bornstein 2000). Thus, an important question for future research is to examine spillover of work into the parent-child relationship via psychological availability for the child.

In addition, an interesting question is whether positive work aspects can also have a negative effect on marital interaction. Extremely positive experiences at work, for example, when someone has just been promoted, might also leave a partner distracted by positive work issues and thus distant from the partner. We found that the invigorating effect of positive work experiences was related to more psychological availability for the partner, but extremely positive work-related thoughts might also require cognitive resources

that are inwardly focused, just like rumination about work issues. Because we did not measure the positive variant of rumination, our suggestion for future research is to develop a concept that refers to 'positive rumination' induced by work, and to test its effect on psychological availability and marital interactions.

This study is not without limitations. A potential limitation is the validity of our new measure of psychological availability. Although the discriminant validity in relation to marital behavior constructs was supported in this study, replication of these findings in future research is needed. Second, caution is in order when making inferences about the causal sequence of the observed relationships because of the correlational nature of the data. A third limitation is that the effects found in this study are modest in size. Modest effect sizes are common in the work-family literature (see Barling & MacEwen, 1992). It goes without saying that marital behavior can be predicted by numerous other factors besides work factors, such as external stressors, family circumstances, or personal characteristics. Our goal was, in particular, to start unraveling the part that is associated with workday residuals. Moreover, we note that these modest effects were obtained while relating self-reported workday residuals to partner reports of marital behavior, which attests to the robustness of these findings. A fourth limitation is that our sample consisted mainly of highly educated participants, of whom wives often worked part-time. This limits the generalizability of our findings. This selective sample was mainly due to our selection criterion of dual-earner partners with children because higher educated women in the Netherlands are far more likely to return to the labor market after childbirth than women with a lower educational level, and these women often work part-time (Merens & Hermans, 2009; Van Gils & Kraaykamp, 2008). Finally, because participation was restricted to dual-earner couples with children, the results are not necessarily valid for dual earners without children or for single-earner families. Notwithstanding these limitations, this study is the first initiative to examine a mediator of the spillover between workday residuals and relationship behavior. By introducing the concept of psychological availability, we aimed to theoretically conceptualize and empirically operationalize the description of how workday residuals spill over into relationship behavior that was investigated in previous spillover research.

The challenge of balancing the daily demands of good performance at work, being a good parent, managing the household, and maintaining a healthy

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marital relationship is increasingly recognized and met by employers by offering time-related facilities (e.g., Becker & Moen, 1999). The findings of this study articulate that time is only one of the challenges experienced by dual-earner families with children. Workday residuals spill over into the marital relationship through the internal state of partners, that is, being more or less psychologically available for the spouse. The comprehension of this mechanism can help refine future efforts to help dual-earner couples with children to cope with these challenges. In addition, knowledge of the possible positive spillover from work can help employers and employees to stimulate opportunities and environments whereby dual earners benefit from combining multiple roles. Because a healthy marital relationship is an important protective factor to the physical and emotional well-being of all members of the dual-earner family (e.g., Fincham, 2003; Van der Valk et al., 2007), the current findings further emphasize the relevance of comprehending daily mechanisms like psychological availability that explain how work affects the marital relationship.

Appendix

Table A1. Daily psychological availability scale (all items and standardized factor loadings)

Items	Factor loadings husbands	Factor loadings wives
When I was with my partner at the end of this workday ...		
1. ... I was fully available for activities with my partner	.53	.57
2. ... I was not in the mood to undertake anything with my partner	.58	.61
3. ... mentally, I was not 'fully there' for my partner	.52	.58
4. ... I was fully open to what my partner wanted to tell me	.65	.69
5. ... mentally, I was too preoccupied to be interested in matters my partner was engaged in	.62	.61
6. ... I was well able to tell how my partner was doing	.55	.57
7. ... I really wanted to know how my partner was feeling	.64	.66
8. ... my thoughts were completely focused on my partner	.61	.60

Note. Confirmatory factor analysis with SEM. Factor loadings were constrained to be equal for husbands and wives. Standardized factor loadings are reported for interpretations ease. Differences are due to differences in variances for husbands and wives.

Chapter 3

The psychological availability of dual-earner parents for their children after work²

² This chapter was published as Danner-Vlaardingerbroek, G., Kluwer, E.S., Van Steenbergen, E.F., & Van der Lippe, T. (2013). The psychological availability of dual-earner parents for their children after work. *Family Relations*, 62, 741-754.

One question that has occupied many working parents as well as work–family researchers concerns the consequences of parental employment for children. Do children suffer when their parents work because parents spend less time with them? Or might children benefit from their parents' employment? Although research indicates that paid work hours reduce the time parents spend with children (e.g., Bianchi, 2000), the mere number of work hours does not substantially predict the quality of the parent–child relationship (e.g., Crouter, Bumpus, Head, & McHale, 2001; Huston & Rosenkrantz Aronson, 2005; Roeters, van der Lippe, & Kluwer, 2010). Instead, other types of parental job features have been found to be negatively related to parent–child interactions, such as work-related exhaustion (e.g., Crouter et al., 2001), negative work-induced mood (e.g., MacEwen & Barling, 1991), and, less explicitly, rumination on problems at work (Roeters et al., 2010). In addition, an increasing number of researchers have started to examine how positive job features are related to advantageous family outcomes (e.g., Greenberger, O'Neil, & Nagel, 1994).

Despite the importance of this work, prior research has not explained the process that underlies how negative or positive 'residuals' of the workday spill over into parent–child interactions. In this study, we examined whether the link between workday residuals and parent–child interactions can be explained by parents' psychological availability for their children. Parental *psychological availability* implies that the parent is not only physically present, but also emotionally or cognitively available for the child (see Danner-Vlaardingerbroek, Kluwer, Steenbergen, & van der Lippe, 2013a). In addition, because parents vary in how they combine work and family roles (Desrochers, Hilton, & Larwood, 2005), we were also interested in the spillover among parents with different role-management tendencies. In this study, therefore, we examined any differential impact of integration versus segmentation of work and family roles on positive and negative work spillover into parent–child interactions, based on a sample of Dutch dual earners.

3.1 Work–family spillover: Empirical evidence

According to the ecological perspective on child development (e.g., Bronfenbrenner, 1986), adults' experiences in larger contexts, such as the work domain, can spill over into the parent–child relationship at home (e.g., Costigan, Cox, & Cauce, 2003). Previous research has explained the spillover process from

work (e.g., work stress or overload) into parent–child interactions by claiming that work experiences can generate ‘baggage’ — referred to as ‘workday residuals’ in this paper — which impairs the parent's functioning at home (e.g., Menaghan & Parcel, 1991; Repetti & Wood, 1997). In the extant literature, workday residuals that have been found to interfere, either explicitly or more implicitly, with optimal functioning in the parent role are feelings of exhaustion (e.g., Crouter et al., 2001; Galambos, Sears, Almeida, & Kolaric, 1995), negative mood (Menaghan & Parcel, 1991; Repetti & Wood, 1997; Sallinen, Kinnunen, & Ronka, 2004), and rumination (Carlson & Frone, 2003).

Although positive job features (e.g., job complexity and challenge) have been related to better parent–child interactions (Greenberger et al., 1994), we did not find studies that examined positive workday residuals that could explain a positive spillover effect. However, Cummings, Davies, and Campbell (2000) showed that positive mood in general was related to the quality of parent–child interactions. Furthermore, Janisse, Barnett, and Nies (2009) found that in contrast to exhaustion, increased energy (referred to as vigor) in general was related to parental efficacy. This suggests that increased energy or vigor as a result of the workday (Bakker, Demerouti, & Schaufeli, 2005) can boost the parent–child relationship after work.

3.2 The mediating role of psychological availability

Despite the empirical evidence for workday residuals that are related to family aspects, to date it remains unclear how and why these workday residuals are related to the way parents and children interact. According to the goal-regulation perspective on parenting, parents must consider and adopt interaction goals that help them meet their child's development needs: to be protected, stimulated, nurtured, and taught (Dix & Branca, 2003). Interacting with children according to these goals implies that parents process and adjust their behavior to the child's continually changing input (Dix & Branca, 2003). Parents thus need access to a reservoir of mental resources for information processing that enable them to interact with the child according to these child-oriented goals (Muraven & Baumeister, 2000). In other words, parents need to be psychologically available during interactions with their children. We define *being psychologically available* for the child as the ability and motivation to direct psychological resources toward the child (Danner-Vlaardingerbroek et al., 2013a).

Psychological availability for the child can thus be seen as having the mental capacity to focus attention on the child, which the parent can use to consider the best way to initiate behavior toward the child and to respond sensitively to the child's behavior.

The importance of undivided attention when involved in direct interaction with the child has been shown for every stage of child development. During infancy, undivided attention is related to sensitive parenting and secure attachment (Ainsworth, Blehar, Waters, & Wall, 1978). During childhood, fully attentive parents have been found to be sensitive to their child's verbal and nonverbal communication, facilitating adequate anticipation of the child's behavior (Milner, 1993). Attentive interactions with adolescents enable parents to perceive their adolescent's thoughts and feelings more accurately, which in turn can reduce conflict (Hastings & Grusec, 1998) and promote self-disclosure by the adolescent (Smetana, Campione-Barr, & Metzger, 2006).

Prior research on marital interaction has shown that psychological availability for the partner served as a mediator between negative and positive workday residuals and the quality of marital interactions in the evening (Danner-Vlaardingerbroek et al., 2013a). In this study, we examined psychological availability for the child as a mediator in the association between positive and negative workday residuals and the quality of parent-child interactions. Specifically, we argue that a parent's accessible psychological resources are diminished by exhaustion, negative mood, and rumination and increased by positive mood and vigor (Danner-Vlaardingerbroek et al., 2013a). The depletion of the parent's mental resources will make it more difficult to focus diligently on the child during parent-child interactions (Rothbard, Philips, & Dumas, 2005). For example, an argument with a colleague or frustration about unfeasible work tasks can produce negative emotions after work. To regulate negative emotions, a person attends cognitively to the self (Green, Sedikides, Saltzberg, Wood, & Forzano, 2010), decreasing the cognitive resources accessible for focusing on the interaction with the child. Likewise, tasks or responsibilities at work may result in mental and/or physical exhaustion (Bakker et al., 2005), leaving fewer psychological resources available for interactions with the child. Finally, difficulties or concerns encountered at work can cause a person to ruminate on work while at home, leading to mental preoccupation with work (Carlson & Frone, 2003), which may also reduce the level of focused attention for the child.

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In sum, we expected that the various negative workday residuals on a particular workday would be related to more negative parent–child interactions later that day, mediated by a reduction in parental psychological availability for the child.

Hypothesis 1: Negative workday residuals as indicated by negative mood, exhaustion, and rumination relate to more negative parent–child interactions, mediated by a decrease in psychological availability for the child.

In contrast to the foregoing, positive workday residuals, for example, induced by success or an enjoyable workday, are associated with being more externally focused (Carver, 2003; Frederickson, 2001). Positive emotions broaden the scope of attention and cognition, facilitating actions that have valuable long-term consequences, such as investing in enduring relationships (Frederickson, 2001). Tice, Baumeister, Shmueli, and Muraven (2007) showed that positive affect causes an increase in cognitive resources. In addition, numerous studies have found that the physical, social, or organizational aspects of a job can result in increased energy and mental resilience, called vigor (e.g., Bakker et al., 2005). In sum, we expected that various positive job aspects induced by a particular workday could increase the psychological resources accessible for parent–child interactions.

Hypothesis 2: Positive workday residuals as indicated by positive mood and vigor are related to more positive parent–child interactions, mediated by an increase in psychological availability for the child.

3.3 Boundary management: Integration versus segmentation

Parents differ in how they manage work and family-role expectations (Rothbard et al., 2005). According to boundary management theory, the options for combining roles fall along a continuum from segmentation to integration of work and nonwork roles (Ashforth, Kreiner, & Fugate, 2000). Integration implies that roles are enmeshed, like routinely attending to work as well as domestic matters during the day, or finishing work tasks while tending the children. Segmentation refers to the strict separation of work and family roles, for example, never responding to work e-mail while at home or only making work-related telephone calls during work time. Ashforth et al. (2000) argue that there are advantages and disadvantages to either strategy. Greater integration

tendencies provide more flexibility and reduce the effort needed to switch back and forth between roles (Ashforth et al., 2000). Although flexibility is greater for integrated roles, the potential for blurring (Desrochers et al., 2005) and distractions (Cardenas, Major, & Bernas, 2004) between roles is greater too. In addition, more flexibility requires more skills of the employee, such as time management skills and the ability to be a self-starter (Desrochers et al., 2005). Alternatively, segmentation reduces flexibility but may protect parents against distractions and spillover between roles (Rothbard et al., 2005).

Several studies found that high work–family integration was associated with greater work–family conflict (Desrochers et al., 2005; Kossek, Lautsch, & Eaton, 2006), but another study found that work–family integration was related to lower work–family conflict (Rau & Hyland, 2002). To our knowledge, there is no empirical evidence for the effects of individuals' boundary management strategies on the parent–child relationship. In line with boundary theory, greater segmentation can be expected to reduce work-related interruptions or distractions, allowing individuals to focus more exclusively on the parental role (Ashforth et al., 2000; Cardenas et al., 2004; Rothbard et al., 2005). The psychological availability of parents with segmented work and family roles will thus be less affected by negative workday residuals. However, segmenting tendencies may also prevent positive work experiences from spilling over into family life, thereby restraining positive effects on psychological availability. Because the boundaries between the work role and the family role are less clear-cut for parents with integrating tendencies, work-related emotions and cognitions may be more present in the family role. We therefore expect that positive and negative workday residuals will have a stronger effect on the psychological availability of parents with integrating tendencies and therefore, indirectly, on their parent–child interactions.

Hypothesis 3: Negative and positive workday residuals are associated with parent–child interaction mediated by psychological availability for integrators, but not for segmenters.

3.4 This study

We tested our hypotheses using data provided by 261 Dutch dual-earner parents. The Dutch work–family context differs from other countries in that Dutch employees, and especially women, are more likely to work part-time and

do a greater share of the family work than employees in other countries (Merens & Hermans, 2009). We consider spillover mediated by psychological availability a basic psychological process that is not affected by the cultural context. However, to rule out the influence of time allocation, we controlled for the contracted work hours of both parents separately and for their combined work hours. We also included the work hours of both parents, separately and combined (including travel time), on the day of study. In the same vein, we controlled for time spent with the child alone and the total time spent with the child together with other family members on the day of study, because spending time with the child alone might have a different impact on a parent's psychological availability or the quality of the parent-child interaction than dividing attention between multiple family members (Roeters et al., 2010). In addition, we controlled for family characteristics, including the number of children, the age of the youngest child, and the age of the child under study, because children's developmental stage is likely to affect work-family spillover processes (Ten Brummelhuis, van der Lippe, Kluwer, & Flap, 2008). Finally, to capture the effect of daily fluctuations in the main study variables, we controlled for salary, general work satisfaction, and general relationship satisfaction with the child (see Table 3.1).

We analyzed the data separately for fathers and mothers within dyads for two reasons. First, research on the spillover from work into the parent-child relationship has often included only mothers (e.g., Cardenas et al., 2004; Huston & Rosenkrantz Aronson, 2005). The studies that included both parents found inconsistent results on gender differences. Some found similar spillover patterns for both genders but small differences on particular variables (e.g., Roeters et al., 2010; Sallinen et al., 2004), whereas Costigan et al. (2003) found spillover for mothers but not for fathers. Analyzing the data separately for fathers and mothers enables us to evaluate whether the spillover process and the role of integration is comparable or varies across gender. Second, the motivation to integrate versus to segment work and family roles is viewed as a personal strategy (e.g., Rothbard et al., 2005), which may vary across partners. That is, the mother may have a segmenting strategy whereas her husband may integrate work and family roles or vice versa. Because Hypothesis 3 predicts negative spillover via psychological availability for integrators but not for segmenters, we tested this hypothesis at the individual level while controlling for the partner, according to dyadic data principles.

Table 3.1. Means and standard deviations of study variables ($N = 261$)

Measure	M_{fathers}	SD_{fathers}	M_{mothers}	SD_{mothers}
1. Negative mood ^a	1.66	.90	1.54	.97
2. Exhaustion ^a	3.09	1.25	3.08	1.24
3. Ruminating ^a	3.22	1.26	3.09	1.30
4. Positive mood ^a	4.84	1.02	4.98	1.09
5. Vigor ^a	3.69	1.02	3.73	1.11
6. Psychological availability ^a	5.13	.84	5.23	.86
7. Quality of parent–child interaction ^a	5.69	.76	5.85	.72
8. Integration ^a	3.40	1.62	3.35	1.64
9. Average weekly work hours	41.89	9.16	53.36	16.84
10. Combined average weekly work hours	95.25	19.05	95.25	19.05
11. Family income ^b	4.64	1.09	4.64	1.09
12. General work satisfaction ^c	7.50	1.17	7.71	.99
13. Age of child (years)	9.49	3.33	9.49	3.33
14. Number of children	2.28	.70	2.28	.70
15. Age of youngest child (years)	6.04	3.25	6.04	3.25
16. Relationship satisfaction with child ^c	8.25	1.10	8.38	1.16
17. Time with child alone (hours)	1.61	1.25	2.05	1.69
18. Total time with child (hours)	1.83	2.51	2.14	1.65
19. Work hours (day of study)	8.83	1.61	7.86	1.56
20. Combined work hours (day of study)	16.69	2.07	16.69	2.07

^a variables were measured using 7-point scales ranging from 1 (totally disagree) to 7 (totally agree); ^b 1 = < 500 to 8 = > 4,000 euros net per month; ^c 1 = not satisfied at all to 10 = perfectly satisfied.

3.5 Method

3.5.1 Participants

A questionnaire was distributed among both parents of 261 Dutch dual-earner families. We focused on parents with school-age children (4–18) because we expected that parent–child interactions with infants are substantially different in nature than interactions with older children, shifting from more physical to more verbal parent–child interactions. Parents had two children on average, ranging from age 4 to 18. The average age of the youngest child was 6 years and 9 years for the oldest child living at home (see Table 3.1). The hypothesized model was tested for both parents and their oldest child living at home to ensure that both parents completed the questionnaire about the same child. Parents were sharing a household together for an average of 14.7 years ($SD = 5.0$) and 81% were married. The average age of fathers was 42.6 ($SD = 6.2$) and 40.4 years for mothers ($SD = 5.6$). Fathers were contracted to work for an average of 37.6 hours a week ($SD = 7.1$) and mothers for 24.7 hours a week ($SD = 6.9$). These work hours are comparable to the Dutch dual-earner population (Merens & Hermans, 2009). Educational level was similar for fathers and mothers, with relatively few lower educated (6.6%) and vocationally trained (21.0%) participants, and a majority (72.4%) of higher educated participants. High educational levels are typical for the Dutch dual-earner population (e.g., Bakker et al., 2005).

3.5.2 Procedure

The data was part of a larger study on spillover from work to family relationships. Parents were recruited by means of brochures distributed at primary schools in rural and urban areas in The Netherlands. Participation criteria were that parents lived together, had at least one child living at home, both had a paid job, and both worked 12 hours per week or more. Working at least 12 hours per week is the Dutch criterion for labor force participation (Merens & Hermans, 2009). We asked parents to complete the questionnaire individually at the end of a day on which they worked and spent at least 30 minutes with their child after work. Once both parents returned the questionnaire, they received a small gift.

From the total of 650 families that subscribed for participation, both parents of 335 of the families returned the questionnaire, a response rate of

51%. Nonresponse was mainly because parents could not find a day on which they both worked (mainly due to few work hours), or because only one of the parents ended up participating. We omitted 74 families that did not meet the participation criteria, resulting in the final sample of 261 Dutch dual-earner families.

3.5.3 Measures

Workday residuals. Workday residual items were measured using 7 point scales ranging from 1 (*totally disagree*) to 7 (*totally agree*). For negative workday residuals, we included the indicators of negative work-related mood, exhaustion, and rumination on work. We assessed negative work-related mood using the six-item version of the Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). An example item is 'Today, my job made me feel miserable' (Cronbach's $\alpha = .91$ for fathers as well as mothers). Exhaustion from the past day was assessed using the 5-item exhaustion subscale of the Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996), with items like 'Work today caused me a lot of stress' (Cronbach's $\alpha = .84$ for fathers as well as mothers). We assessed daily work-related rumination on six items (Danner-Vlaardingerbroek et al., 2013a). Example items are 'After I finished work I kept thinking about things that I need to do at work', and 'After I finished work I could easily distance myself from my work' (reversed) (Cronbach's $\alpha = .82$ for fathers and $.81$ for mothers). We measured positive workday residuals using two indicators: positive work-related mood and work-related vigor. For positive work-related mood, we used the 6-item subscale from the JAWS (Van Katwyk et al., 2000). An example item for positive mood is 'Today, my job made me feel cheerful' (Cronbach's $\alpha = .88$ for fathers and $.87$ for mothers). Work-related vigor was measured using the 6-item subscale from the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006), adapted to the past day. An example item is 'After I finished work today, I felt invigorated by my work' (Cronbach's $\alpha = .80$ for fathers and $.83$ for mothers).

Psychological availability. To assess psychological availability for the child, we used the eight items of the Daily Psychological Availability Scale (Danner-Vlaardingerbroek et al., 2013a), adapted to measure psychological availability for the child. Items were measured using 7-point scales ranging from

1 (*totally disagree*) to 7 (*totally agree*). Cronbach's α was .78 for fathers as well as mothers. Example items are 'When I spent time with my oldest child after work today, I was not able to focus on my child' (reversed) and 'When I spent time with my oldest child after work today, I was eager to know how my child was doing'. A higher score on this scale represents more psychological availability; see Danner-Vlaardingerbroek et al. (2013a) for more details on the reliability and validity of this measure.

Parent-child interactions. The Family Assessment Measure (FAM; Skinner, Steinhauer, & Santa-Barbara, 1983) allows for the measurement of dyadic parenting relationships of fathers and mothers with each child separately. We used a Dutch version of the FAM, the Parent-Child Interaction Questionnaire (PACHIQ; Lange, Blonk, Wiers, & Van der Schaar, 1997). We adapted the questionnaire to assess the quality of parent-child interactions at day level. Items were measured using 7 point scales ranging from 1 (*totally disagree*) to 7 (*totally agree*). The parents completed the questionnaire with respect to interactions with their oldest child. Examples of items on this scale are 'Today, I complimented [name child]', 'Today, I yelled at [name child]' (reversed), and 'Today I showed [name child] that I was proud of [him/her]' (Cronbach's $\alpha = .84$ for fathers and .82 for mothers). The higher the score on the questionnaire, the more positive interactions there are between parent and child. For the purposes of this study, there was no validated questionnaire available for children across the full school-age range (4-18). Because the PACHIQ was originally designed for children age 8 to 18, we tested whether the scores for parents of children age 4 to 8 differed from the scores for parents of children age 8 to 18. There were no significant differences, $F_{\text{fathers}}(1) = 1.08, p = .30, F_{\text{mothers}}(1) = 1.54, p = .22$. Analyses were therefore conducted on parents of children between age 4 and 18. Nevertheless, we controlled for the age of the child in the analyses.

Integration versus segmentation. Integration versus segmentation of work and family life was measured using the three-item Work-Family Integration-Blurring Scale (WFIBS; Desrochers et al., 2005). Items were measured using 7-point scales ranging from 1 (*totally disagree*) to 7 (*totally agree*). The items are 'It is often difficult to tell where my work life ends and my family life begins', 'I tend to integrate my work and family duties', and 'In my life, there is a clear boundary between my career and my role as a parent' (reversed) (Cronbach's $\alpha = .83$ for fathers and .84 for mothers). A higher score

indicated more integration. Including integration in the model as a continuous moderator variable would require including latent interaction effects between all indicators of the workday residuals and integration. Because we did not have enough power to include these latent interaction effects, we performed a median split ($Md = 3.34$) on integration. We refer to *integrators* for the group that scored above the median, and to *segmenters* for the group that scored below the median.

3.5.4 Analyses

Structural equation modeling (SEM) using AMOS (Version 16) was applied to test our hypothesized relationships. Dyadic data analysis principles were applied to account for the interdependence of data in relationship dyads (Kenny, Kashy, & Cook, 2006). The data were therefore analyzed on the couple level, including distinct structural equation paths for both partners. Corresponding endogenous variables of the partners were allowed to covary (see Kenny et al., 2006). Model fit was evaluated using the chi-squared, the Tucker-Lewis Index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA; see Kline, 2005). A nonsignificant chi-squared indicates a good model fit; however, the chi-squared is sensitive to sample size. The TLI, CFI, and RMSEA are less sensitive to sampling characteristics. A TLI or CFI value $\geq .95$ indicates a good model fit, and a coefficient $\geq .90$ an adequate model fit (Kline, 2005). An RMSEA value $\leq .05$ is indicative of a good model fit and $\leq .08$ of an adequate model fit (Kline, 2005). Bootstrapping was used to test whether the significant pathways running between predictor variables and outcome variables through the mediator did in fact represent significant indirect relationships (Preacher & Hayes, 2008).

3.6 Results

Means and standard deviations are reported in Table 3.1. Pearson correlations between all study variables are shown in Table 3.2. The analyses of our hypothesized model consisted of three steps. First, we analyzed the validity of our measurement model (the latent predictor variables). Second, we tested the expected relationships of Hypothesis 1 and 2. Finally, we conducted group comparisons between integrators and segmenters to test Hypothesis 3.

Table 3.2. Bivariate correlations among model variables for fathers (below diagonal) and mothers (above diagonal)

Measure	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Negative mood	-	.44**	.37**	-.50**	-.29**	-.19**	-.16**	.13*	-.03	-.43**	-.14*	.05	-.09	.06
2. Exhaustion	.48**	-	.43**	-.43**	-.54**	-.25**	-.13*	.24**	.03	-.28**	-.13*	.04	-.10	.08
3. Ruminating	.40**	.38**	-	-.39**	-.26**	-.31**	-.25**	.47**	.28**	-.25**	.07	-.01	-.08	.06
4. Positive mood	-.48**	-.42**	-.17**	-	.66**	.33**	.16**	-.08	-.04	.56**	.15*	.01	.21**	-.12
5. Vigor	-.31*	-.52**	-.07	.61**	-	.25**	.01	-.05	.00	.37**	.22**	-.16*	.19**	-.16
6. Psychological availability	-.19**	-.27**	-.20**	.24**	.20**	-	.49**	-.22**	-.05	.16**	-.06	.20**	.12*	-.16
7. Parent-child interaction	-.15*	-.15*	-.14*	.14*	.05	.53**	-	-.16**	-.03	.11	-.11	.28**	.03	-.06
8. Integration	.07	.14*	.46**	.00	.06	-.25**	-.11	-	.32**	.01	.04	.01	-.06	.00
9. Average weekly work hours	.08	.05	.31**	.05	.01	-.07	.08	.40**	-	.12	-.11	-.01	-.15*	.26
10. General work satisfaction	-.38**	-.19**	-.04	.49**	.30**	.04	.02	.09	.11	-	.00	.00	.16*	-.01
11. Number of children	.04	.06	.04	-.02	.01	-.17**	-.18**	.05	.04	-.03	-	-.17**	.07	-.07
12. Relationship satisfaction	-.08	-.08	-.10	.02	-.05	.31**	.59**	-.07	-.04	.03	-.16**	-	.04	-.01
13. Total time with child	.07	-.08	-.01	.06	.11	.03	-.07	-.04	-.04	.02	.02	-.01	-	-.33**
14. Combined work hours	-.05	.05	.01	.02	-.06	-.01	.04	.07	.12	-.09	.03	-.01	-.11	-

Note. For reasons of clarity, only the control variables that showed significant relationships in the model are shown. $N = 261$; * $p < .05$, ** $p < .01$.

First, to test the construct validity of the latent variables, we tested a measurement model with the different scales tapping the two latent variables positive and negative workday residuals. As expected, negative workday residuals represented a latent factor with average scores of negative mood, exhaustion, and rumination as indicators, whereas positive workday residuals were represented by a latent factor with the average scores of positive mood and vigor as indicators. This measurement model showed a good fit to the data: $\chi^2(71) = 102.44$, $p < .01$, TLI = .98, CFI = .98, RMSEA = .03. All scales had significant loadings on the intended factors ($p < .01$; see Figures 3.1 and 3.2). Calculating the factor loadings for mothers and fathers separately did not lead to a significant change of model fit, $\Delta\chi^2(3) = 1.96$, $p = .58$, indicating that negative and positive workday residuals measure the same constructs among mothers and fathers. Calculating the factor loadings for segmenters and integrators separately did not lead to a significant change in model fit either, $\Delta\chi^2(3) = 2.60$, $p = .46$ (fathers) and $\Delta\chi^2(3) = 1.73$, $p = .63$ (mothers), indicating that the latent factors measure the same for integrators and segmenters. Parameters of factor loadings were therefore set to equal for fathers and mothers and for integrators and segmenters.

Second, we built the hypothesized statistical model including fathers and mothers using dyadic data principles, which enabled us to control for the interdependence between the two parents in the same household. The model included the hypothesized indirect pathways from negative and positive workday residuals to parent-child interaction mediated by psychological availability, as well as direct pathways. The latter was meant to test whether these direct pathways were nonsignificant, which would support mediation effects, as predicted by Hypothesis 1 and Hypothesis 2. In addition, we included the control variables in the model to predict psychological availability as well as parent-child interactions. This model almost fulfilled the criteria for adequate model fit, $\chi^2(282) = 445.43$, $p < .01$, TLI = .89, CFI = .90, RMSEA = .05. Next, allowing parameters to vary across fathers and mothers resulted in a significant improvement of model fit, $\Delta\chi^2(14) = 32.18$, $p < .01$. Finally, to create a more parsimonious model, variables that were not significant were eliminated from the model one by one, but only if the elimination did not lead to a significant decrease in model fit. This resulted in a model that adequately fit the data, $\chi^2(284) = 424.55$, $p < .01$, TLI = .90, CFI = .91, RMSEA = .05 (see Figure 3.1).

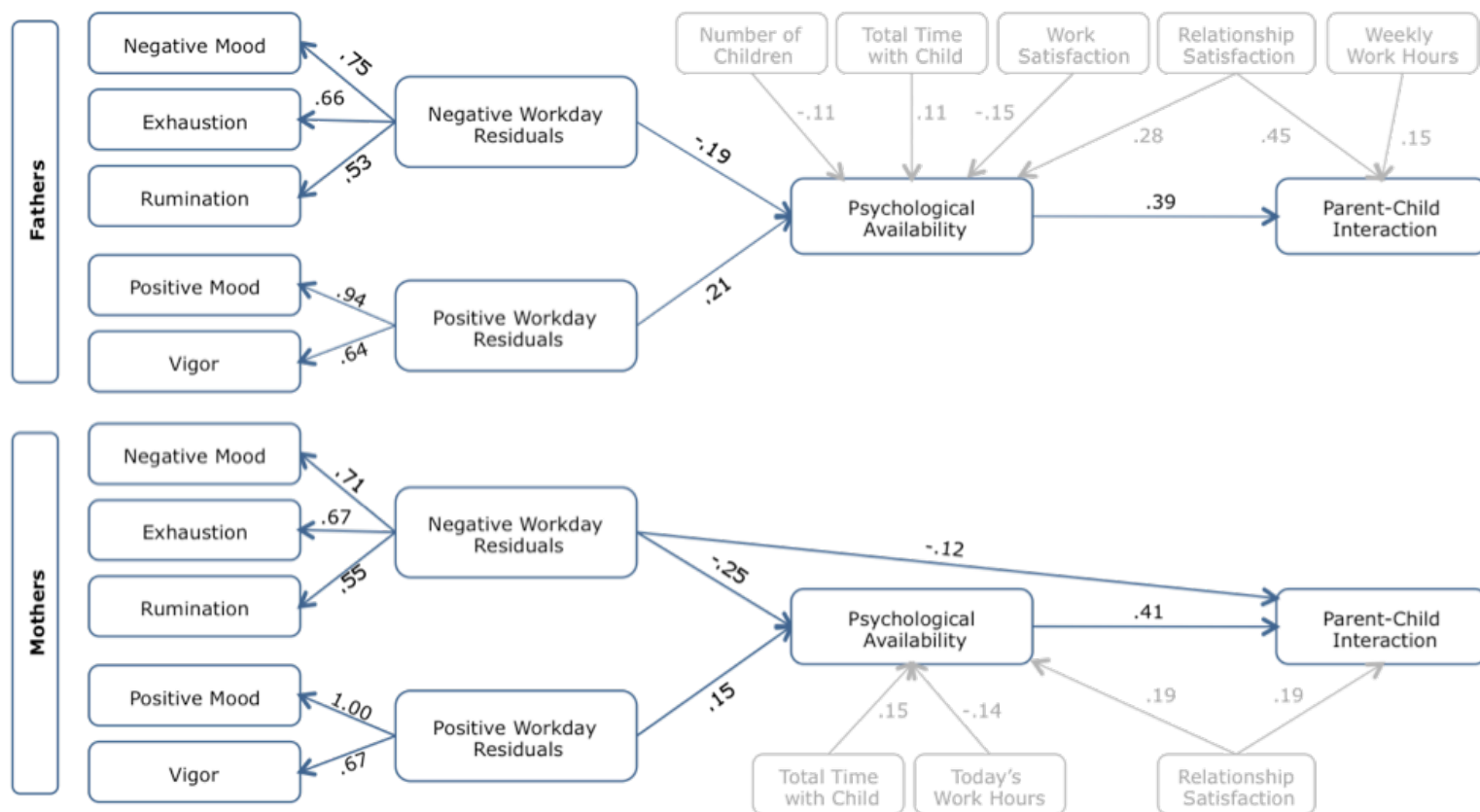


Figure 3.1. Spillover from workday residuals into parent-child interaction mediated by psychological availability for the child

Note. Significant standardized path coefficients are shown. Significant control variables are shown in gray. For clarity, nonsignificant pathways and the correlations between corresponding variables of fathers and mothers are not shown. $N = 261$.

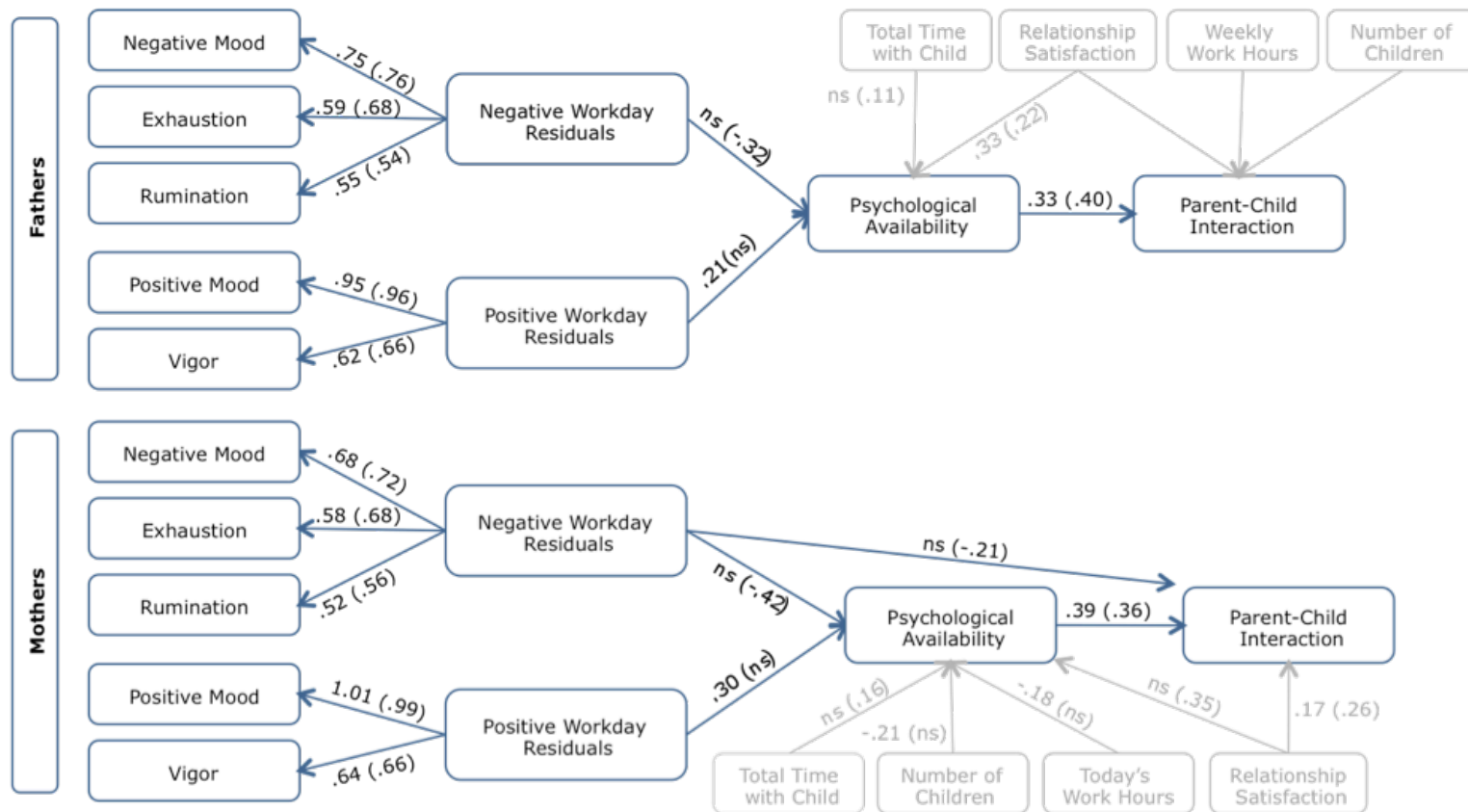


Figure 3.2. Spillover from workday residuals into parent-child interaction mediated by psychological availability for the child, differentiated for integrators and segmenters.

Note. Significant standardized path coefficients are shown for segmenters and integrators respectively (integrators between parentheses). Significant control variables are shown in gray. For clarity, non-significant pathways and the correlations between corresponding variables of fathers and mothers are not shown. $N = 261$.

Consistent with Hypothesis 1, negative workday residuals were related to psychological availability, which were in turn related to parent–child interaction. Bootstrap analyses confirmed the expected indirect effect (mothers: $b = -.10$, $SE = .05$, $p = .01$; fathers: $b = -.08$, $SE = .05$, $p = .05$). The presence of the significant direct effect between negative workday residuals and parent–child interaction shows that the indirect effect represents a partial mediation effect. In support of Hypothesis 2, positive workday residuals were related to more positive parent–child interactions through an increase in psychological availability for the child. Bootstrap analyses showed the significance of this indirect effect, although it was marginally significant for mothers (mothers: $b = .06$, $SE = .04$, $p = .08$; fathers: $b = .09$, $SE = .04$, $p = .01$). As can be seen in Figure 3.1, the pattern of results is similar for fathers and mothers. Figure 3.1 also shows which control variables were statistically significant.

Third, we conducted group comparisons between integrators and segmenters to test Hypothesis 3. As explained in the introduction, integration versus segmentation is a personal strategy, which was confirmed by a non-significant within-dyad correlation between the integration score of the mother and the father, $r = .10$, *ns*. We therefore conducted group comparisons twice, once with groups based on the integration score of one partner (e.g., the mother) while controlling for the corresponding endogenous variables of the other partner (e.g., the father) and then again vice versa. This enabled us to perform comparisons between groups that were based on individual scores and still control for the interdependence between the partners (i.e., according to dyadic data analyses principles). In addition, this provided the opportunity to explore gender differences. The models in which parameters were set to equal for integrators and segmenters were almost an adequate fit to the data: mothers: $\chi^2(563) = 720.05$, $p < .01$, TLI = .89, CFI = .90, RMSEA = .03; fathers: $\chi^2(563) = 738.66$, $p < .01$, TLI = .88, CFI = .89, RMSEA = .04. Next, allowing parameters to vary between integrators and segmenters marginally improved the model fit for mothers, $\Delta\chi^2(14) = 22.67$, $p = .07$, whereas for fathers the chi-squared improvement of the model fit, $\Delta\chi^2(14) = 13.62$, $p = .48$, was not significant. When there is no significant difference between models, the most parsimonious model is usually preferred. However, because we formulated specific hypotheses about differences between segmenters and integrators, and because the model fit did not deteriorate, we chose to look at the two groups

separately (see Kline, 2005). Finally, control variables that were not significant were eliminated from the model, resulting in the models presented in Figure 3.2 (mothers: $\chi^2(571) = 712.92, p < .01, TLI = .90, CFI = .91, RMSEA = .03$; fathers: $\chi^2(563) = 738.66, p < .01, TLI = .88, CFI = .89, RMSEA = .04$).

Our results showed clear differences between integrators and segmenters (see Figure 3.2). We discuss the results for both parents together, because the general pattern of results was comparable for fathers and mothers. For integrating parents, negative workday residuals were negatively related to parent-child interactions through reduced psychological availability for the child. Bootstrap analyses confirmed the significance of these indirect effects (mothers: $b = -.16, SE = .06, p < .01$; fathers: $b = -.15, SE = .06, p < .01$). For integrators, positive workday residuals were not significantly related to psychological availability or to parent-child interactions.

The results for segmenting parents were exactly the opposite: Negative workday residuals were not related to parent-child interactions. On the other hand, positive workday residuals were positively related to parent-child interactions through psychological availability. Bootstrap analyses showed the significance of these indirect effects (mothers: $b = .10, SE = .03, p < .01$; fathers: $b = .07, SE = .04, p = .01$). These results partly support Hypothesis 3. As expected, integrators showed spillover from negative workday residuals into parent-child interaction, mediated by reduced psychological availability, but, unexpectedly, positive residuals did not spill over. As expected, negative workday residuals did not spill over for segmenters. They did, however, show positive spillover, which was not hypothesized.

3.7 Discussion

This study replicates and extends previous findings showing that functioning in the work role is related to family functioning. There have been few empirical studies to date exploring the underlying processes of how work affects parent-child interactions among working parents. In support of our hypotheses, these findings suggest that parents' psychological availability for the child may help fill this gap by explaining the associations between negative and positive workday residuals and the quality of parent-child interactions. In particular, we found that parents' negative work-related mood, exhaustion, and rumination were related to more negative interactions with the child after work, mediated

by decreased psychological availability for the child. In addition, we showed that psychological availability also mediated the association between positive work-related mood and vigor on the one hand and more positive parent–child interactions on the other hand.

This study showed that psychological availability can be used to explain the spillover of workday residuals into parent–child interactions at home. Instead of examining a single work aspect, we showed that work-related negative mood (e.g., MacEwen & Barling, 1991), rumination on work problems (e.g., Carlson & Frone, 2003), and decreased energy due to a demanding workday (e.g., Crouter et al., 2001) were all related to the quality of parent–child interactions, mediated by the parent's decreased psychological availability for the child. In addition, the results extend prior research by showing that parents' psychological availability also explained how work-related positive mood and vigor (Janisse et al., 2009) were associated with enhanced positive interactions with the child. This is one of the first studies to look at the positive effects of parental work on parent–child interactions, showing that the parent–child relationship can actually benefit from parental work experiences.

3.7.1 Segmentation: The preferred type of role combination?

This study showed that negative workday residuals were related to less psychological availability among integrators, but not among segmenters. This suggests that a more integrating strategy, in contrast to a more segmenting strategy, allows for negative spillover from workday residuals into parent–child interactions. By contrast, having clear boundaries between work and family life may protect a parent from taking negative work experiences home to affect parent–child interactions. Interestingly, we found the opposite effect for positive workday residuals. Positive workday residuals were related to more psychological availability for parents who segmented work and family roles, but not for parents with integration tendencies. This suggests that a segmenting strategy prevents negative spillover from workday residuals into parent–child interactions while allowing for positive spillover. By contrast, an integrating strategy seems to allow negative spillover but prevents positive workday residuals from spilling over into parent–child interactions.

The unexpected findings might be explained by the 'bad is stronger than good' phenomenon. In general, negative events have a stronger impact than

positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). When negative and positive spillover take place among integrators in the manner we expected (because integrating parents do not prevent any spillover), positive spillover is likely to be overruled by the spillover of negative workday residuals. In contrast, results imply that, as expected, segmenting parents prevent negative spillover from taking place, leaving room for positive spillover. In other words, the spillover of positive workday residuals is not overruled by the spillover of negative residuals because segmenters do not let negative workday residuals spill over into parent–child interactions.

According to boundary theory (Ashforth et al., 2000), integration has advantages (e.g., flexibility) and disadvantages (e.g., interruptions and distractions). However, results of this study seem to favor segmentation as a way to enhance parent–child interactions. The tendency to integrate work and family life may place the parent at risk of emotional distraction or mental preoccupation, which keeps him or her from focusing sensitively on the child (Roeters et al., 2010), whereas segmenting work and family life may help positive work experiences to spill over into more positive parent–child interactions. However, it should be noted that not all parents may have sufficient self-regulatory skills to deliberately detach from negative thoughts and emotions when switching roles (e.g., Muraven & Baumeister, 2000).

No clear gender differences were found in this study, indicating that the spillover process of work-to-parent–child interaction and the role of integration are basic processes that are more similar than different for fathers and mothers.

3.7.2 Limitations and future directions

There are a number of limitations to this study and corresponding implications that should be noted. First, the reliance on self-report methods increases the risk of shared method variance. Future research could replicate our findings using observational measures of parent–child interactions assessed by objective raters to supplement our self-report findings. Second, the cross-sectional nature of this research limits our ability to infer the directionality of our effects, and for the same reason it is not possible to make causal inferences. A longitudinal or daily diary method may provide answers to some of these concerns by making it possible to measure baseline levels and examine daily fluctuation. Third, this research was conducted among parents of highly

educated dual-income families in The Netherlands. Future studies should examine whether the current findings can be generalized to other categories in the growing list of family structures, such as traditional (single-income) families, single-parent families, and lower educated dual-earner families. Additionally, future research should examine how characteristics of the work environment, such as organizational culture or flexible work arrangements, affect workers' boundary management strategies and hence their psychological availability for their family members and interaction patterns with them. Finally, it would be interesting to investigate individual characteristics, such as parents' self-regulatory skills, as an explanation for the ability to prevent negative spillover.

3.7.3 Theoretical and practical implications

This research offers a promising insight into the factors that mediate and moderate the spillover of work into the family, in particular into the quality of parent-child interactions. In sum, this study provides support for the idea that psychological availability explains how work spills over into the parent-child relationship. Psychological availability was previously found to be valuable for the marital relationship, and this research shows that the parent-child relationship benefits as well. In addition, this study revealed that parents' tendency to integrate versus segment their work and family life can be associated with work being either harmful or beneficial for the parent-child relationship.

These findings provide valuable insights that can be useful for clinical practitioners, organizations, and working parents. Findings corroborate previous research indicating the importance of parents being focused and emotionally attuned to their children, instead of mainly protecting the amount of time they spend with their children (e.g., Roeters et al., 2010). This suggests that instead of being concerned about not spending enough time with their children due to work obligations, working parents should be concerned about their psychological availability for their children. Parents could benefit from information about the positive impact of their work experiences and take advantage of the knowledge that it is the quality of time rather than the amount of time that makes a difference in child outcomes.

In the past decade, working life has become increasingly flexible; for example, many parents now work from home or work flexible hours. Such

flexibility provides more options for combining work and family, but at the same time contributes to the blurring of boundaries between roles and may therefore lead to an increase in the number of working parents who employ an integration strategy (Kossek et al., 2006). Findings suggest, however, that this might have negative consequences for the parent–child relationship. Working parents should be informed about the consequences of integration versus segmentation of their different roles. For example, parent education programs or human resources training modules within organizations could include training in creating clear boundaries between the work role and the parenting role to enhance positive interactions with children and protect the quality of the parent–child relationship against the spillover of negative workday residuals.

Chapter 4

How work spills over into the relationship:

Self-control matters³

³ This chapter is based on Danner-Vlaardingerbroek, G., Kluwer, E.S., Van Steenbergen, E.F. & Van der Lippe, T. How work spills over into the relationship: Self-control matters.

Having a nice relationship can be easy in the weekend after a good night's rest and pleasant leisure activities to look forward to. However, being the perfect partner may become more difficult during the week, when workdays are accompanied with tight work schedules, a high workload or problems at work. Work experiences may bring about feelings of frustration or exhaustion that can spill over into the home domain and affect the way employees interact with their family members (e.g., Danner-Vlaardingerbroek, Kluwer, Van Steenberg, & Van der Lippe, 2013; Story & Repetti, 2006). This *work-to-family spillover* is the within-person transmission of feelings or behavior and subsequent strain from the work domain into the family domain (Bakker, Demerouti, & Burke, 2009). Especially dual-earner families with young children are often challenged by managing the combined responsibilities of being a partner, parent, and employee (Bianchi, Robinson, & Milkie, 2006). The ever increasing number of dual-earner families in Western Society, and also in The Netherlands (Merens, Hartgens, & van den Brakel, 2012), indicates the importance of studying the effects of combining work and family responsibilities.

The literature on this subject is extensive and considerable attention has been paid to studying the consequences of work-family spillover, including some consequences regarding relationship functioning (for an overview, see Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005). Although associations between work factors and relationship functioning have been demonstrated, insight into *how* these associations are established is rather scarce. Only recently, Danner-Vlaardingerbroek and colleagues (2013a; 2013b) suggested that an individual's psychological availability for family members could explain the spillover from workday residuals into family interactions. However, these studies did not include concrete work experiences or characteristics of the workday, that are the precursors of the residuals that are carried home after the workday by the employee. The current research aims to extend this earlier literature by replicating the mediating role of psychological availability between workday residuals and family interactions, while including work experiences such as work pressure and interactions with colleagues in the examination of the spillover process. In the following sections, we will argue that work demands are related to partner relationship behavior through the depletion of resources and the subsequent decrease of psychological availability for the partner. By including work experiences as predictors of workday residuals, the work domain is covered

more explicitly and thereby provides a more comprehensive understanding of the spillover process between the work domain and the family domain.

In addition, the examination of individual differences has been rather scarce in the work-family literature (Eby et al., 2005; Parasuraman & Greenhaus, 2002). In the current chapter, we substantiate that some individuals are more prone to work-family spillover than others, and argue that this spillover process depends on individual differences in dispositional self-control. In the previous literature, a few studies showed that some individual differences were related to work-family spillover. For example, Wayne and colleagues found that the personality traits extraversion and conscientiousness were related to greater facilitation between roles, whereas neuroticism was related to more conflict between roles (Wayne, Musisca, & Fleeson, 2004). In addition, Danner-Vlaardingerbroek and colleagues (2013b) found that individuals enacting a segmenting boundary management strategy experienced merely positive spillover from work to the family domain, whereas individuals enacting an integrative boundary management strategy experienced merely negative spillover. The current research aimed to extend the investigation of individual differences in the work-family literature by examining whether dispositional self-control results in beneficial relationship outcomes with regard to work-family spillover.

Finally, because previous literature on work-family spillover mainly based its findings on correlational studies (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007), the current study aimed to expand the literature by including a quasi-experimental method. With the quasi-experimental design in the current research we aimed to answer the question whether it is possible to overcome the spillover of negative workday residuals induced by experiences of the workday into relationship behavior at home.

In three studies, the current study examined the various steps in the spillover process, from the characteristics of a demanding workday (i.e., work experiences), via the workday residuals that are carried home with after work (i.e., depletion of psychological resources), and subsequently the individual's psychological state with regard to family members (i.e., psychological availability), into the quality of interactions with the partner (i.e., relationship behavior). Moreover, we examined whether the occurrence of this spillover process depends on the individual's dispositional self-control. Knowledge about

these mediating and moderating mechanisms provide valuable insight in possibilities to prevent negative spillover and reduce its detrimental consequences for the partner relationship. Finally, we examine such a possibility to prevent negative spillover, and test whether it is possible to foster good quality relationship behavior in spite of a demanding workday.

4.1 Work demands and the depletion of resources

During a workday, especially a demanding workday, it is highly conceivable that emotional and cognitive activities temporarily deplete employees' psychological resources. Activities that require the employee to regulate one's emotions, thoughts and behaviors are more effortful than other - more automatic - processes because they involve higher-order cognitive processes (Miyake, Friedman, Emerson, Witzki, Howerter, & Wager, 2000) and thus firmly address psychological resources (Finkel & Campbell, 2001). As conceptualized by the self-regulatory strength model, self-regulation can be viewed as a strength that is limited and depletable as a function of situational factors such as willpower exertion, stress or exhaustion (Baumeister & Heatherton, 1996). Examples of work demands that address this self-regulatory strength are negative social interactions at work, for example when dealing with an angry colleague (Repetti, 1993). Effortful self-regulation processes are needed to terminate the resulting unpleasant emotional state (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Green, Sedikides, Saltzberg, Wood, & Forzano, 2010). Also, the pressure to perform fast at work can require self-regulatory strength and drain the employee's psychological resources (Bakker & Geurts, 2004). For example, switching rapidly between different tasks is known to involve effortful cognitive control processes (Monsell, 2003). Finally, at work, individuals need to inhibit the impulse to react to distractions when trying to concentrate at a task, which is effortful and requires self-regulatory strength (Miyake et al., 2000). In sum, we expect that work demands require employees to exert self-regulatory processes and leave them depleted from their psychological resources at the end of the workday.

4.2 Depletion and psychological availability

A theoretical model that is commonly referred to in the work-family literature is the spillover model, which acknowledges the importance of the

spillover of psychological states from one role into the other (e.g., Greenhaus & Beutell, 1985; Piotrkowsky, 1979). This model posits that negative experiences at work may leave the individual with workday residuals at the end of the workday, e.g., feelings of frustration, depression or ineffectiveness, which may spill over into the home role, contributing to negative marital interactions, dissatisfaction or lowered role performance (e.g., Rogers & May, 2003). As argued above, a workday residual that may be the result of many work demands is the depletion of psychological resources. Recently, Danner-Vlaardingierbroek and colleagues (2013a; 2013b) showed that the individual's psychological availability for family members could explain how such workday residuals were related to relationship behavior. Psychological availability is defined as one's ability and motivation to direct psychological resources at the partner, that is, being interpersonally present for the partner and having the mental capacity to actively direct attention towards the partner. An individual that is psychologically available for the partner will have enough cognitive room to rapidly weigh a sensitive response to the partner and has the capacity to sense what the partner needs most. Danner-Vlaardingierbroek and colleagues (2013a) found that residuals of the workday, such as work-induced mood, ruminating about work matters and exhaustion, were related to the individual's psychological resources that could be directed at family members, and thereby affected the quality of family interactions. In the same vein, we expect that the depletion of psychological resources as induced by the workday will decrease an individual's psychological availability for the partner.

To maintain close relationships, people need to engage in activities to repair, sustain, and continue relationships in the ways partners want them to be (Stafford & Canary, 1991). According to interdependence theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996), these maintenance behaviors are often costly, because partners need to consider what is good for the relationship and enact upon these considerations, which is more effortful than relying on automatic impulses that are usually tuned in favor of the self. Similar to demands of the workday, these considerations for the good of the relationship use higher-order cognitive processes and thus require self-regulatory strength (Yovetich & Rusbult, 1994). Consequently, acting in favor of the relationship requires enough psychological resources to be able to make these effortful considerations. Because experiences during the workday can deplete the amount

of psychological resources, we expect that this diminishes the amount of resources that are available for considerations regarding the partner. In other words, we expect that the depletion of psychological resources by work is associated with a decrease in psychological availability for the partner and subsequently with a decrease in relationship functioning.

One particular type of relationship maintenance behavior is *accommodation*. Accommodation is defined as reacting constructively rather than destructively to a partner's potentially destructive behavior (Rusbult et al., 1991). To forego or inhibit an automatic and self-interested destructive reaction towards the partner is effortful and requires self-regulation. Indeed, research has shown that positive relationship behavior or accommodation is less likely to occur when individuals have less self-regulatory strength available (Baumeister, Vohs, & Tice, 2007; Finkel & Campbell, 2001). Therefore, we expect that a decrease in relationship functioning can be expressed in a decrease in accommodative tendencies.

4.3 Individual differences in dispositional self-control

Not all working individuals will be equally prone to work-to-relationship spillover. In addition to temporal levels of psychological resources that can fluctuate depending on the situation, individuals differ in their general or dispositional capacity to regulate the self (Baumeister, Gailliot, DeWall, & Oaten, 2006; Tangney, Baumeister, & Boone, 2004). Dispositional self-control or trait self-control is conceptualized as a relatively stable personality trait entailing the degree to which individuals are able to control and inhibit impulses and alter their behavior across time and across situations (Finkel & Campbell, 2001). Dispositional self-control is related to many positive, desirable outcomes such as good grades and work performance, lower risk of impulse control problems like binge eating or alcohol abuse, good psychological adjustment and healthy interpersonal relationships (Tangney et al., 2004). More specifically, the more dispositional self-control both partners have together, the better their relationship quality (Vohs, Finkenauer, & Baumeister, 2011). In addition, Finkel and Campbell (2001) found that after conducting a task in which psychological resources were depleted after exerting self-regulation, individuals low in dispositional self-control showed a larger decrease in accommodative tendencies compared to persons high in dispositional self-control. This suggests that the

behavior of individuals high in dispositional self-control is less affected by fluctuations in the level of psychological resources compared to individuals low in dispositional self-control. In other words, we expect that individuals with high dispositional self-control are better able to show positive partner behaviors despite being depleted by work than individuals with low dispositional self-control. This means that we expect stronger negative spillover effects among individuals low in dispositional self-control than among those high in dispositional self-control.

4.4 Research overview

To gain insight in how and for whom work experiences spill over into relationship functioning, we conducted three studies using both correlational and experimental methods. The first study aimed to examine the mediating role of 'depletion' as workday residual and the moderating role of dispositional self-control in the association between work experiences and marital behavior. Using a cross-sectional survey, we tested whether work demands were related to diminished accommodation through the work-induced depletion at the end of a workday for individuals low in dispositional self-control, but to a lesser degree for individuals high in dispositional self-control (Hypothesis 1). Study 2 aimed to further specify the spillover process by examining the mediating role of psychological availability in the association between the depletion after work and marital behavior. Therefore, a cross-sectional survey examined whether the negative link between depletion at the end of a workday and accommodative behavior in the evening was mediated by a decrease in psychological availability for the partner. Again, we tested whether this mediation effect was stronger for individuals low in dispositional self-control compared to individuals high in dispositional self-control (Hypothesis 2). In the third study, we aimed to strengthen the findings of the first two studies by using a quasi-experimental design. We examined whether increasing psychological availability for the partner after the workday, while controlling for work-induced depletion, would enhance positive relationship behavior, compared to a control group. Once again, we examined whether this effect was stronger for individuals low in dispositional self-control compared to individuals high in dispositional self-control (Hypothesis 3). Figure 4.1 presents an overview of the variables and associations that were examined in the different studies.

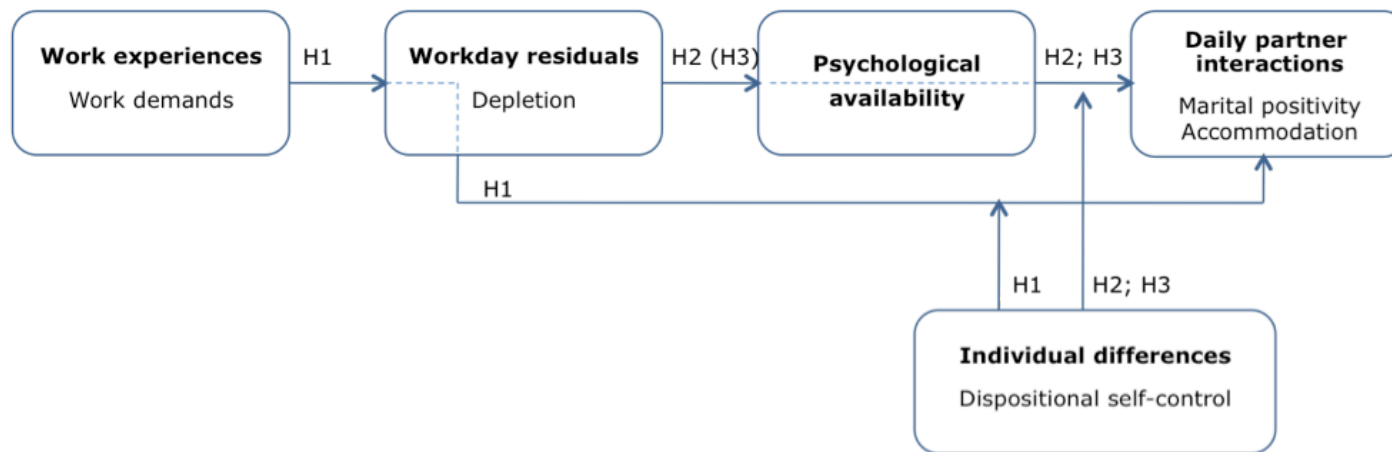


Figure 4.1 Schematic overview of the hypotheses

4.5 Study 1

The primary goal of Study 1 was to examine whether work demands were associated with partner relationship behavior through work-induced depletion, thereby testing whether this mediation effect differed depending on individuals' dispositional self-control; a moderated mediation effect. Based on our theoretical framework, we hypothesized that work demands were negatively related to accommodative tendencies via depletion by work. We expected this mediation effect to be stronger among individuals low in dispositional self-control than among individuals high in dispositional self-control (Hypothesis 1).

4.5.1 Method

Procedure and participants. Data of this study were derived from a study that was conducted with the goal to examine recovery experiences within the work-family context. The original study was conducted among a sample of 83 Dutch dual-earners using a snowball technique. Participation criteria were that participants worked a minimum of 24 hours per week, lived together with their partner and had at least one child living at home. Three research assistants distributed emails to acquaintances including an invitation asking them to participate and to forward the invitation to other dual-earners who might be interested. The email explained that the data of the study would be treated anonymously and confidentially. The research assistants distributed questionnaires to the participants after agreement.

Participants completed the questionnaires at the end of the day on a Thursday or Sunday of a week in which they had worked, and they received a small gift after returning the questionnaire (i.e. a magazine). In the original study, this design was conducted to obtain variance in the amount of recovery experiences across respondents; about half of the individuals participated on a workday, and the other half participated on a day off. Testing the hypotheses of the current study, however, required a homogeneous group of respondents, preferably with recent work experiences without variation in recovery. Therefore, we selected the respondents that completed the questionnaire on a workday, resulting in a sample of 47 dual-earners. We controlled for possible selection effects by comparing the selected group that worked and the excluded group that did not work that day on both background (i.e. age, age of youngest child, number of children and weekly work hours) and study variables, and found no

relevant differences between the samples. As could be expected, the only difference between the two groups was that the depletion of self-regulatory resources was higher in the selected group ($M = 3.37$, $SD = 1.11$) that worked on the day of participation, compared to the excluded group ($M = 2.69$, $SD = .97$) that did not work on the day of participation, $t(80) = -2.94$, $p < .01$, indicating that individuals from the group that worked indeed had not yet recovered from their work experiences of the past day.

The majority of the participants was male (79%), 92% of the sample was married and the remaining 8% lived together. Participants were on average 45.83 years old ($SD = 8.38$; range 30 to 60 years old). Males worked on average 36.91 hours per week ($SD = 4.50$) and females worked on average 30.87 hours per week ($SD = 7.47$). The majority was higher educated (63%). Participants had on average 2.54 children ($SD = 1.03$) aged between 0 and 29 years, with an average age of the youngest child of 10.07 years ($SD = 7.05$). The high percentage of men in this sample is most likely due to the work hour criterion in the original study, namely working more than 24 hours a week. In the Netherlands, women of dual-earner families with school-aged children often have part-time jobs. In 2011 for example, they worked for 24.0 hours a week on average compared to 40.6 hours for men (Merens et al., 2012).

Measures. Participants reported on their work demands of the past workweek. *Work demands* were measured by 4 items about work pressure (Williams & Alliger, 1994) and 2 items about negative social interactions (Repetti, 1993). Example items are: 'During work the last week, I had to put high effort in my work tasks' and 'During work the last week, I had an unpleasant argument with a coworker' (Cronbach's $\alpha = .62$). *Depletion* at the end of the workday was assessed with the 10-item Concurrent Depletion Scale (Finkel & Campbell, 2001). Example items are 'At this moment I feel tired', 'At this moment I feel frustrated' or 'At this moment I feel busy' (Cronbach's $\alpha = .85$). A higher score on this scale represented more depletion by work. *Dispositional self-control* was measured with 13 items of the Self-Control Scale (SCS; Tangney et al., 2004). An example item is: 'I am good at resisting temptation' (Cronbach's $\alpha = .70$). *Accommodation* was measured with the 16-item Accommodation Scale (Rusbult et al., 1991), for example: 'When my partner would say something really mean now, I would talk to my partner about

what's going on, trying to work out a solution' (Cronbach's $\alpha = .73$). All items were measured on a 7-point scale (1 = *totally disagree* to 7 = *totally agree*).

4.5.2 Results

Means, standard deviations, and correlations of the study variables are presented in Table 4.1. Work demands were significantly related to depletion, thereby meeting the primary prerequisite to test a moderated mediation effect (Preacher, Rucker, & Hayes, 2007). We tested the moderated mediation hypothesis with a regression analysis using the SPSS macro 'PROCESS' of Hayes (2013), which is designed to test moderated mediation. First, depletion (the mediator) was significantly predicted by work demands, $F(1, 45) = 8.74$, $b = .39$, $SE = .13$, $p < .01$. Subsequently, accommodation was significantly predicted by depletion ($b = -.49$, $SE = .15$, $p < .01$) and by the interaction between depletion and dispositional self-control (mediator * moderator; $b = .36$, $SE = .18$, $p = .05$), $F(4, 42) = 5.36$, $p < .01$. In this regression, the main effects of work demands ($b = .16$, $SE = .14$, $p = .28$) and dispositional self-control ($b = .22$, $SE = .14$, $p = .12$) were not significant. The regression explained 34% of the variance in accommodation. The significant interaction effect supported the assumption of moderated mediation (Hayes, 2013). Given the significant interaction term, bootstrap analyses were conducted on the hypothesis that the conditional indirect effect equals zero at specific values (M , $\pm 1 SD$) of the moderator. In support of Hypothesis 1, depletion mediated the effect of work demands at low ($-1 SD$) and mean levels (M) of dispositional self-control, but not when dispositional self-control was high ($+1 SD$; see Table 4.2).

Table 4.1 Means, *SD*'s, and correlation coefficients of the study variables

Measure	<i>M</i>	<i>SD</i>	2.	3.	4.
1. Work demands	4.24	.91	.40**	-.05	.07
2. Depletion	3.37	1.11	—	-.40**	-.03
3. Accommodation	4.80	.81		—	.34*
4. Dispositional self-control	4.64	.80			—

** $p < .01$, * $p < .05$, $N = 47$.

Table 4.2 Bootstrap analyses of conditional indirect effects (moderated mediation effects) of work demands on accommodation through depletion

Conditional indirect path	Effect	SE	LLCI	ULCI
WD → DEP → ACC (Low DSC, - 1 SD)	-.35*	.18	-.80	-.07
WD → DEP → ACC (Mean DSC)	-.20*	.09	-.44	-.06
WD → DEP → ACC (High DSC, + 1 SD)	-.06	.10	-.29	.14

Note. * significant effect, $N = 47$. Bootstrap sample size = 5000 bootstrap resamples. $R^2 = .34$. WD = Work demands, DEP = Depletion of self-regulatory resources, ACC = Accommodation, DSC = Dispositional self-control. LLCI = 95% lower limit confidence interval; ULCI = 95% upper limit confidence interval.

An additional result of the PROCESS macro is that we detected where the interaction effect was situated, because the model needs to be specified to one of the several options of what a moderated mediation effect can look like (Hayes, 2013). Therefore, an additional finding is that the moderator effect of dispositional self-control was situated between the mediator (depletion) and the dependent variable (accommodation). Other options of moderated mediation did not provide significant interaction effects.

4.6 Discussion and introduction to Study 2

As expected, work demands were via depletion negatively related to accommodation. In support of Hypothesis 1, this spillover effect was only present for individuals with average or low levels of dispositional self-control. The findings further suggest that individuals high in dispositional self-control can become depleted from their psychological resources just like individuals low in dispositional self-control, but they do not experience negative spillover into relationship behavior.

In Study 2, we aimed to elaborate on how depletion after a workday is related to relationship behavior. We expected that psychological availability would mediate the association between work-induced depletion and accommodation, but more strongly for individuals low in dispositional self-control compared to individuals high in dispositional self-control (Hypothesis 2), again a moderated mediation effect. In order to attain a higher percentage of women than in Study 1, we used a lower work hour criterion in the second study. In

addition, to ensure that individuals had recent work experiences, we included the criterion that individuals had to participate on a workday in Study 2.

4.6.1 Method

Procedure and participants. In conducting the second study, we used a similar procedure as in Study 1, with slightly adjusted participation criteria as described above, 96 members of dual-earner families who had at least one child living at home were recruited to participate in this study. Participants were engaged in paid work for at least 12 hours a week, which is the minimal number of hours for an individual to be counted as part of the labor force in The Netherlands (CBS, 2008). Gender was equally divided (48% was male, 52% was female), 81% of the sample was married and the remaining 19% cohabitated. The average age of participants was 42.43 years ($SD = 8.16$; range 24 to 65 years). Male respondents worked on average 38.52 hours per week ($SD = 7.80$), female respondents worked on average 26.74 hours per week ($SD = 7.62$). Most participants were highly educated (75% higher education or higher vocational education). Participants had on average 2.08 children ($SD = 0.69$) between 0 and 22 years old. The average age of the youngest child was 6.65 ($SD = 5.12$).

Measures. Similar to Study 1, respondents completed the questions on *depletion* (Cronbach's $\alpha = .84$), *dispositional self-control* (Cronbach's $\alpha = .77$), as well as *accommodation* (Cronbach's $\alpha = .71$) about the past workday. In addition, participants completed the Daily Psychological Availability Scale (Danner-Vlaardingerbroek et al., 2013a). This scale consists of 8 items measuring the accessibility of psychological resources to be used in the direction of the partner (1 = *totally disagree*, 7 = *totally agree*). Example items are: When I was with my partner at the end of this workday..., ... mentally, I was not 'fully there' for my partner, or ... my thoughts were completely focused on my partner. The scale had a good reliability coefficient (Cronbach's $\alpha = .77$). A higher score represents more psychological availability for the partner. Because we lowered the work hour criterion, the weekly work hours varied more between participants compared to Study 1. We therefore controlled for weekly work hours in Study 2.

4.6.2 Results

Means, standard deviations and correlations are presented in Table 4.3. Depletion of self-regulatory resources was significantly related to psychological

availability (see Table 4.3), thereby meeting the primary prerequisite to test a moderated mediation effect (Preacher et al., 2007). We tested the moderated mediation hypothesis by conducting a regression analysis using the SPSS macro PROCESS of Hayes (2013). First, psychological availability (the mediator) was significantly predicted by depletion after work ($b = -.48, SE = .09, p < .01$). The control variable weekly work hours was not a significant predictor of psychological availability ($b = .06, SE = .09, p = .54$), $F(2, 93) = 13.50, p < .01, R^2 = .23$. Subsequently, accommodation was significantly predicted by psychological availability ($b = .38, SE = .11, p < .01$), dispositional self-control ($b = .20, SE = .09, p = .04$), and by the interaction between psychological availability and dispositional self-control (mediator * moderator; $b = -.19, SE = .09, p = .04$), $F(4, 91) = 7.48, p < .01$. Depletion and the control variable weekly work hours were not significant predictors of accommodation ($b = -.03, SE = .11, p = .76$, and $b = .12, SE = .09, p = .04$, respectively). The regression explained 26% of the variance in accommodation. The significant interaction effect supported the assumption of moderated mediation.

Table 4.3 Means, SD's and correlations of the study variables

Measure	<i>M</i>	<i>SD</i>	2.	3.	4.
1. Depletion	3.35	1.04	-.47**	-.20 ⁺	-.19 ⁺
2. Psychological availability	4.56	.93	-	.41**	.24**
3. Accommodation	4.69	.67		-	.31**
4. Dispositional self-control	4.70	.85			-

** $p < .01$, * $p < .05$, + $p < .10$, $N = 96$.

Given the significant interaction term, bootstrap analyses were conducted on the hypothesis that the conditional indirect effect equals zero at specific values ($M, +/- 1 SD$) of the moderator. Psychological availability mediated the effect of depletion at low and mean levels ($-1 SD$ and M), but not at high levels of dispositional self-control ($+1 SD$; see Table 4.4). As expected, the negative association between depletion and accommodation was mediated by a decrease in psychological availability. In line with our expectations and with Study 1, this effect was only present for individuals with low or mean levels of dispositional

self-control, but not for individuals high in dispositional self-control. An additional result is that we detected where the interaction effect was situated, because we used the macro of Hayes (2013). Similar to Study 1, the interaction effect was situated between the mediator - which was now psychological availability - and the dependent variable accommodation. Other options of moderated mediation did not provide significant interaction effects. This suggests that depletion is related to a decrease in psychological availability for individuals high in dispositional self-control, just like individuals low in dispositional self-control. However, for those high in dispositional self-control this decrease in psychological availability was not related to a decrease in accommodative tendencies towards the partner.

Table 4.4 Bootstrap analyses of conditional indirect effects (moderated mediation effects) of self-regulatory resources on accommodation through psychological availability

Conditional indirect path	Effect	SE	LLCI	ULCI
DEP → PA → ACC (Low DSC, - 1 SD)	-.27*	.10	-.49	-.11
DEP → PA → ACC (Mean DSC)	-.18*	.07	-.36	-.07
DEP → PA → ACC (High DSC, + 1 SD)	-.10	.07	-.27	.01

Note. * significant effect, $N = 96$. Bootstrap sample size = 5000 bootstrap resamples. $R^2 = .25$. DEP = Depletion of self-regulatory Resources, PA = Psychological availability, ACC = Accommodation, DSC = Dispositional self-control. LLCI = 95% lower limit confidence interval; ULCI = 95% upper limit confidence interval.

4.7 Discussion and introduction to Study 3

Study 2 showed that individuals with average or low levels of dispositional self-control who were depleted from work accommodate less towards their partner via a decreased psychological availability for their partner, whereas for those high in dispositional self-control, a decrease in psychological availability for the partner was not related to less accommodation. These results add to Study 1 that showed that work demands were related to accommodation via depletion, but only for individuals with low and mean levels of dispositional self-control. The findings of Study 2 suggest that depletion after a tough workday was related to lower psychological availability for the partner, and subsequent lower

accommodation. This explains how work demands can 'spill over' into the partner-relationship: Work can deplete individuals and depleted individuals have more difficulties to focus their mind on their partner, which explains why they have difficulties to accommodate to their partner. This, however, does not apply to individuals high in dispositional self-control, as they accommodated regardless of their depletion and lowered psychological availability. In other words, individuals relatively low in dispositional self-control do experience negative spillover via psychological availability, whereas individual with high levels of dispositional self-control do not experiences negative spillover into relationship behavior.

There are some limitations to the two preceding studies. In the first place, accommodative behavior was measured as hypothetical behavior. Respondents had to imagine an outlined situation, and report on how they would react to this situation in their current state. Second, the data were cross-sectional and partly retrospective; the measures that assessed work demands, depletion and psychological availability at the end of the workday were assessed at the same time as accommodative tendencies. We conducted a third study to overcome these limitations. We aimed to improve the generalizability of the results by manipulating – through a writing assignment – individuals' psychological availability for their partner after work. In addition, we used a real-life measure to assess relationship behavior instead of the hypothetical measure that we used in the first two studies. Real-life accommodation is difficult to measure because it is a reaction to destructive behavior of the partner. Accommodation is thus dependent on whether the partner shows destructive behavior during the evening on the day of participation. Because we preferred to measure relationship behavior real-life (i.e., in a natural setting), we assessed general positive relationship behavior in the third study instead of accommodation. To further improve the methodology compared to the first two studies, we assessed measures at two points in time in the third study: directly after work and at the end of the evening.

In addition to overcome the limitations of the preceding studies, the third study also aimed to gain insight in means to overcome negative spillover from work into the family domain. As mentioned in the general introduction, psychological availability entails not only the amount of resources, but also the direction of these resources, namely directed at the partner. Therefore, we

aimed to manipulate psychological availability by increasing the amount of resources and directing these resources at the partner. We used the 'gratitude writing assignment' and asked participants to write down three recent situations in which their partner had been kind to them and to explain why they were grateful for their partner. The gratitude writing assignment was derived from a combination of two existing positive interventions: 'gratitude visit' and 'three good things in life', both by Seligman, Steen, Park, and Peterson (2005). Because gratitude is a positive emotion, it has the potential to increase the amount of resources for the partner (e.g., Fredrickson, Mancuso, Branigan, & Tugade, 2000; Tice, Baumeister, Shmueli, & Muraven, 2007). In addition, gratitude can be characterized as 'other-directed' (Emmons & McCullough, 2003; Tsang, 2006). Because of the external focus of this emotion, gratitude stimulates sensitivity and concern for others (McCullough, Emmons, & Tsang, 2002; Kubacka, Finkenauer, Rusbult, & Keijsers, 2011). We therefore argue that the induction of gratitude for the partner has the potential to increase an individuals' psychological availability for the partner; that is, increasing the amount of psychological resources and directing them at the partner.

By increasing psychological availability for the partner with the gratitude writing task, we expected that individuals would show more positive relationship behavior than individuals whose psychological availability was not increased. In line with the previous studies, we expected this effect to be stronger for individuals low in dispositional self-control compared to individuals high in dispositional self-control (Hypothesis 3).

4.7.1 Method

Procedure and participants. Participants of the third study were 62 members of dual-earner families, mainly women (57) and a few men (5). Participants had at least one child living at home and worked for at least 12 hours per week. Participants were recruited from the larger survey study described in Chapter 2 and 3. The reason why mainly women participated was that the majority of the men in the survey study had indicated that they were not willing to participate in future studies. Participants received a personal link for an online questionnaire one hour before the end of their workday and another one during the evening. This way, the two questionnaires of participants could be linked and it was assured that participants completed the

questionnaires on the right day at the right time. Participants received a small gift after filling out both questionnaires. The average age of participants was 42.08 years ($SD = 5.63$; range 29 to 55 years) and participants worked on average 29.11 hours per week ($SD = 8.37$). The average relationship duration of participants was 17.67 years ($SD = 6.08$). Participants had on average 2.44 children ($SD = 0.89$) aged between 0 and 26 years. Most participants were higher educated (77% higher education or higher vocational education).

Measures. To assess *depletion*, respondents completed the Concurrent Depletion scale (Finkel & Campbell, 2001) at the end of a workday before going home (Cronbach's $\alpha = .76$). Half of the participants completed the gratitude writing assignment to increase psychological availability (the experimental group) while the other half did not (the control group). At the end of the evening, all participants completed a 4-item subscale that assessed daily *positive relationship behavior* (Gable, Reis, & Downey, 2003). Example questions are 'I was physically affectionate toward my partner' and 'I told my partner I loved him/her' (Cronbach's $\alpha = .76$). In the evening, all participants also reported on *dispositional self-control* with the Self-Control Scale (SCS; Tangney et al., 2004; Cronbach's $\alpha = .80$).

4.7.2 Results and discussion

Means, standard deviations, and correlations between the study variables are presented in Table 4.5. Bivariate analyses of variance were conducted to test whether the experimental group and the control group differed on daily positive relationship behavior, while controlling for work-induced depletion. Main effects of group, dispositional self-control, and depletion were entered into the analyses, as well as the interaction between group and dispositional self-control. As expected, results showed a significant interaction effect between group and dispositional self-control, $F(1, 57) = 5.06, p = .03$, in addition to a significant main effect of dispositional self-control, $F(1, 57) = 4.84, p = .03$. The other effects were not significant. Without taking depletion into account, the interaction showed a slightly weaker effect, $F(1, 57) = 3.43, p = .06$. This implies that it matters to take work-induced depletion into account.

Table 4.5 Means, *SD*'s and correlations of the study variables

Measure	<i>M</i>	<i>SD</i>	2.	3.
1. Depletion	3.76	.82	-.14	.27*
2. Positive relationship behavior	4.17	1.18	–	-.24 ⁺
3. Dispositional self-control	3.70	.89		–

Note. * $p < .05$, ⁺ $p < .10$, $N = 62$.

To interpret the significant interaction effect, group differences of positive relationship behavior were calculated at different values of dispositional self-control, while controlling for differences in depletion. As predicted by Hypothesis 3, individuals low in dispositional self-control who were assigned to the experimental group reported more positive relationship behavior than low dispositional self-control individuals from the control group, with a medium effect size. For individuals with mean and high values of dispositional self-control, the experimental group and the control group did not differ in the reported positive relationship behavior (see Table 4.6). Hence, as expected, individuals who did the gratitude writing task after work showed more positive relationship behavior than individuals who did not, but only when they had low levels of dispositional self-control. Individuals high in dispositional self-control all showed positive relationship behavior, whether they did the gratitude writing task or not.

Table 4.6 Differences between groups on positive relationship behavior at different values of dispositional self-control, controlled for depletion

Dispositional self-control	Experimental group <i>M</i> (<i>SE</i>)	Control group <i>M</i> (<i>SE</i>)	<i>F</i> (<i>df</i>)	<i>p</i>	Partial η^2
Low (- 1 <i>SD</i>)	4.31 (.25)	3.18 (.34)	$F(1, 57) = 7.03$.01	.11
Mean (0 <i>SD</i>)	4.30 (.20)	3.86 (.21)	$F(1, 57) = 2.28$.14	.04
High (+ 1 <i>SD</i>)	4.29 (.32)	4.54 (.27)	$F(1, 57) = 0.35$.56	.01

Note. $N = 62$.

4.8 General discussion

The first purpose of this research was to increase our understanding of how and for whom work experiences spill over into partner relationship interactions. Building on earlier work-family spillover research and using principles of interdependence theory, we hypothesized that the association between work experiences and partner relationship behavior was mediated by differences in temporal psychological resources and subsequently by psychological availability for the partner. In addition, we hypothesized that this association would apply in particular for individuals low in dispositional self-control. Consistent with our hypotheses, Study 1 revealed that work demands were, via work-induced depletion, negatively related to accommodation, indeed only for individuals with average or low levels of dispositional self-control. Furthermore, Study 2 revealed that psychological availability mediated the negative association between depletion and accommodation, again only for individuals with average or low levels of dispositional self-control. Finally, Study 3 showed that a writing assignment that was aimed to increase psychological availability for the partner was related to positive relationship behavior, but only for individuals with low dispositional self-control. Together, the results showed that negative spillover of work demands into accommodation is mediated by depletion and psychological availability, but only for individuals with low dispositional self-control. In addition, the results thus suggest that, after a demanding workday, individuals with low dispositional self-control can prevent negative spillover by inducing feelings of gratitude for their partner.

The present research extends earlier work on work-family spillover by providing more elaborate insight into how and for whom work experiences spill over into relationship behavior. First, the current research further unravels work-family spillover. In the previous literature, relationship behavior was predicted by work experiences like workload (Hughes & Galinsky, 1994), via workday residuals like mood (Story & Repetti, 2006). A recent study showed that psychological availability mediated the association between workday residuals and relationship behavior (Danner-Vlaardingerbroek et al., 2013a). The current study adds to this literature by including the examination of work demands in the spillover process and examining depletion of psychological resources as workday residual.

Second, the present research extended previous research by investigating individual differences in the work-family spillover process. Whether work demands spilled over into relationship behavior depended on dispositional self-control. All three studies indicated that individuals low in dispositional self-control were more vulnerable to work-relationship spillover than individuals characterized by high dispositional self-control (Studies 1, 2 and 3). Although there is a number of studies that showed the advantages of dispositional self-control in many forms of behavior (for an overview, see Baumeister & Vohs, 2007), to our knowledge, this is the first study that looked at dispositional self-control as an individual difference variable in the work-to-relationship spillover context. Moreover, the results of the third study imply that the induction of feelings of gratitude for the partner, aimed to increase the psychological availability for the partner, helped individuals with less dispositional self-control to reach comparable amounts of positive relationship behavior to individuals higher in dispositional self-control. Thus, results suggest that gratitude can help individuals with relatively low levels of dispositional self-control to prevent negative spillover from work into the relationship.

In addition to the hypothesized findings, we found that even though individuals high in dispositional self-control become depleted after a tough workday and experience a decrease in their psychological availability for the partner, they are still able to exert positive relationship behavior, in contrast to individuals with average and low levels of dispositional self-control, who reported less positive relationship behavior after being depleted. A possible explanation for this finding can be found in research on automatic behavior. Research on the self-regulatory strength model generally assumes that behaviors that are more effortful also consume more self-regulatory strength than automatic behaviors (Baumeister et al., 2007). Because habits appear relatively automatic (Baumeister & Alquist, 2009), people who are high in dispositional self-control are probably good at automatizing positive or healthy behavior into habits (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012). In the context of relationship behavior, this could imply that individuals high in dispositional self-control have habituated positive interpersonal behaviors, which should feature in a lower cost of self-regulation - which requires psychological resources - to perform these positive relationship behaviors. This could explain why

individuals high in dispositional self-control do not experience negative work-relationship spillover.

Although the results of the current study provide interesting theoretical insights, several limitations qualify our conclusions. First, all three studies are based on self-reports of partner-relationship behavior. Results of the current study would be strengthened when replicated, for example by partner reports or by independent observations of relationship behavior. Second, all three studies were conducted using convenient samples, limiting the generalizability of the findings. Third, the distribution of males and females in the samples varied across the three studies. However, that similar results concerning dispositional self-control were found in all three samples seems to suggest that these results are robust across gender, as males were overrepresented in the first study and females were overrepresented in third study. Finally, a limitation of the third study is that there was no second control condition with an alternative assignment (Orne, 2009). It is possible that the gratitude writing assignment influenced the reporting of their relationship behavior by taking time to think about something else than work after the workday. A second control condition with a comparable assignment but unrelated to the relationship would tackle this limitation.

This study raises interesting questions for future research. It is important to extend the findings of the current study with longitudinal research. When the induction of feelings of gratitude for the partner - when done repeatedly - indeed results in improvements of daily partner-interactions in the long run, it would be interesting to construct an easy-to-apply intervention and examine whether such an intervention can positively affect relationship duration, for example with a daily diary study combined with a longitudinal component. Also, our samples consisted of Dutch dual-earner families that were mainly highly educated families. It is important to extend the results to other types of families, such as families in which only one of the partners has a paid job or families with a lower social economic status.

In addition to expanding theoretical insights, our research has implications for practitioners who work in work-family contexts or assist partner relationships. Findings of the current study showed that possessing high dispositional self-control can help employees to restrain negative spillover from work to affect his or her relationship behavior at home. For individuals who are

not equipped with this helpful personality trait, findings of the current study showed the induction of gratitude, which can easily be applied, might help to overcome possible depleting effects of work demands resulting in more positive relationship behavior. Although dispositional self-control is a relatively stable personality trait, individuals can be trained to increase their self-control and in customizing adaptive behaviors like positive relationship behavior (Baumeister & Alquist, 2009), making them less vulnerable to negative spillover. To conclude, the current study shows that by either having good self-control qualities, or by the induction of gratitude for the partner, it can be prevented that a draining workday has a negative impact on the partner relationship.

Chapter 5

General discussion

The increasing prevalence of dual-earner families (Merens, Hartgers, & Van den Brakel, 2012) logically increases the potential for work experiences to impact our family lives. Because work stress is one of the three stress-providing contexts that differentiate stable and satisfied couples from distressed and divorced couples in the long run (Bodenmann & Cina, 2005), examining how and under what conditions work can shape daily interactions between partners provides a relevant contribution to our knowledge. This also applies to examining how and for whom work impacts the interactions of parents with their children, because a child's biological, emotional and social development is largely shaped by daily interactions within the family (Repetti et al., 2012). When individuals come home after a tough day at work, they may be tired, stressed or frustrated. As a result, they may distance themselves or react grumpy towards their spouse or children. However, when the workday was satisfying and individuals whistle on their way home, they may be more kind and caring towards their family members. The goal of this dissertation was to gain insight in the effects of work experiences on family relationships in dual-earner families. Two main questions guided this research: Do work experiences affect individuals' family interactions through their psychological availability for family members, and which individuals are particularly prone to work-to-relationship spillover? The individuals in our studies were all managing the combined responsibilities that come with being an employee, a partner, and a parent to young (school-aged) children. Work responsibilities can put demands on the individual, but they can also provide resources, which both may affect functioning in the family domain. In addition, dual-earners differ in how they manage these combined responsibilities. Employing cross-sectional and quasi-experimental methods of research, using data of couples analyzed according to dyadic data principles, I studied the psychological availability of dual-earners for their family members to explain the spillover process and the conditions under which this spillover occurred (i.e., integration versus segmentation as boundary management strategy and dispositional self-regulation as personality characteristic). In this concluding chapter, I will discuss the main findings of this dissertation. The remaining part of this chapter will be devoted to a discussion of the theoretical, methodological, and practical implications of these findings, as well as limitations and directions for future research.

5.1 How work spills over into the family: Psychological availability

The first main conclusion of the current research is that psychological availability mediates the link between workday residuals and interactions with family members after the workday, where psychological availability was defined as the ability and motivation to direct psychological resources at the partner or child. Psychological availability was found to be a mediator in the spillover process for both negative and positive spillover, with different types of workday residuals as precursors and with interactions with partners as well as with children as outcomes. More specifically, negative workday residuals were related to lower quality interactions with the partner or child through a decrease in psychological availability, whereas positive workday residuals were related to higher quality interactions with the partner or child through increased psychological availability.

These results suggest that work can indeed restrain an individual from being 'fully there' for the partner or child. For example, when an individual does not recognize signals of discomfort or misinterprets underlying intentions of the partner or child because the individual has no room in mind for considering these issues, interactions may be featured by withdrawal or anger. However, the results also suggest that work can enhance an individual to be fully there for the other, implying that there is enlarged mental capacity to think about how the other feels or what is on the others mind. When an individual is able to sympathize with the other or understand the other, interactions are characterized as positive.

One could argue that psychological availability overlaps with constructs such as responsiveness or positive interactions (Reis, Clarke, & Holmes, 2004). However, these constructs indicate actual relationship behavior, whereas psychological availability indicates self-reported motivation and ability to perform this behavior. Results in chapter 2 showed that psychological availability differed significantly from the other constructs that were studied in chapter 2, including marital positivity. I distinguished between psychological availability and actual relationship behavior as this provided insight in the precursor of behavior, and how the positive and negative spillover between work and relationship behavior is established. Concurrently, this also confirms that it is indeed spillover that occurs between work and the family.

Spillover refers to the effect that one domain has on the other domain, whereby similarities are generated between the two domains (e.g., Burke & Greenglass, 1987; Edwards & Rothbard, 2000), which therefore results in a positive association between a work construct and a family construct. However, there are also other possible processes that could result in a positive association between work and family. Such a process could be congruence, which attributes similarities between work and family to a third variable that affects both domains (Edwards & Rothbard, 2000). For example, dispositional affect may influence both work satisfaction and family satisfaction, resulting in a positive relationship between those two variables (Frone, Russell, & Cooper, 1994). However, the finding that psychological availability mediates between the work and family domain suggests that the work domain has an effect on the family domain and therefore resembles a spillover process. Thus, by examining psychological availability as mediator, spillover can be indicated and discriminated from other mechanisms that could link work and family, and therefore adds to a better understanding of the spillover process in the work-family literature.

5.1.1 Negative workday residuals and psychological availability

The current dissertation shows that different psychological processes play a role in the spillover from work to relationship functioning. In the previous work-family literature, several isolated constructs - which I refer to as workday residuals - were examined as linking mechanism to explain the work-family spillover process (see Chapter 1). Extending this previous literature, the current research showed that affective (i.e., mood), physical (i.e., energy) and cognitive (i.e., rumination) workday residuals were, via psychological availability, related to the quality of partner interactions (Chapter 2) and parent-child interactions (Chapter 3) at home. The current research thus extends and connects the scarce and fragmented literature on workday residuals.

In addition to the workday residuals that were already examined as linking mechanisms in previous literature, also the depletion of self-regulatory resources was found to be related via psychological availability to the quality of partner interactions (Chapter 4). Compared to mood, energy and rumination, depletion of self-regulatory resources is a more general workday residual that also includes affective, physical and cognitive states. In sum, the current research

showed that affective, physical and cognitive states were related to the altered psychological availability of the individual and subsequently the quality of family interactions.

The previous literature showed that experiences during the workday can have a negative impact on family relationships and theorized how this negative spillover would take place, for example using the negative mood spillover model (e.g., Story & Repetti, 2006). In such models, characteristics of the job, characteristics of the workday or workday residuals that were sometimes referred to as linking mechanisms, were generally associated directly with interactions in the family domain. In the negative mood spillover model for example, negative mood is assumed to negatively affect family interactions (Story & Repetti, 2006), but it does not explain how a change in mood results in a change in the quality of interactions with other family members. Reduced or enhanced psychological availability further clarifies the spillover process by indicating how workday residuals, such as negative mood, affect the individual because he or she is less motivated and capable of constructively interacting with the partner or child.

5.1.2 Positive workday residuals and psychological availability

In line with recent work-family studies, which increasingly focus on positive associations between work and family (e.g., Van Steenbergen, Kluwer, & Karney, 2014), the current dissertation showed that work can also positively affect the family domain. Via an increase in psychological availability, positive workday residuals (i.e., positive mood and vigor) were related to positive interactions between partners (Chapter 2) and between parents and their children (Chapter 3). However, the results for positive spillover into the quality of partner interactions were slightly weaker than those for negative spillover. However, with regard to the quality of parent-child interactions, the positive spillover of mothers seemed to be slightly weaker compared to their negative spillover, whereas for fathers the opposite was true. These results confirm that positive experiences can indeed enrich individuals and renew their energy, as is described by the broaden-and-build theory (Frederickson, 2001).

An interesting question that follows from these results is whether positive workday residuals will always have an enriching effect on family interactions, or whether the positive spillover is restricted to a certain degree. When an

individual is overly enthusiastic about the job, fully dedicated and totally absorbed by it, would this still carry a positive effect into the family domain? Absorption (i.e., being happily engrossed in one's work and having difficulties with detaching from one's work) is one of the indicators of work engagement, which refers to a positive, fulfilling, work-related state of mind (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002). Work engagement is mainly related to positive outcomes, such as job satisfaction and life satisfaction (Schaufeli & Salanova, 2007). However, absorption often also correlates with workaholism (e.g., Van Beek, Taris, Schaufeli, & Brenninkmeijer, 2012), which is associated to less positive outcomes, including poor family satisfaction (Burke & Koxsal, 2002) and divorce (Robinson, Flowers, & Carroll, 2001). Future research could study whether other positive workday residuals besides vigor and positive mood, such as being happily absorbed by work, bring about merely positive effects into the family or could also negatively affect family relationships.

In sum, the current research contributes to our understanding of the work-family interface, because it is one of the first studies showing that positive residuals of the workday link the work and family domain. In addition, by showing that psychological availability links these workday residuals with family interactions, a more detailed insight in this positive spillover process was provided.

5.1.3 Family interactions and psychological availability

The current dissertation extends previous relationship research by showing that residuals of the workday were not only related to the interactions between partners (Chapter 2) but to interactions with the children as well (Chapter 3), both through the individual's psychological availability for those family members. Gratitude, aimed to increase psychological availability for the partner (i.e., the induction of positive thoughts and feelings into the direction of the partner) was also found to increase positive partner interactions (Chapter 4).

The current research suggests that positive family interactions are not self-evident after a weary workday. On the other hand, they also suggest that family relations can profit from a pleasant and satisfying workday. In line with the literature, indicating that psychological resources are required to initiate positive interactions or to respond sensitively or constructively to the partner or child (Rusbult et al., 1991; Dix & Branca, 2003), the current findings confirm

that the psychological state of an individual after work is an important predictor of the quality of interactions with family members during the evening. Specifically, psychological availability for family members was indeed found to be a significant condition for maintaining positive family interactions, both between partners as between parents and their children.

Notwithstanding the best intentions individuals may have for their family relationships, they are not always able to choose the psychological state in which they turn home after a day at work. For example, work tasks might be physically exhausting or the communication with a colleague does not run smoothly. Therefore, the current research instigated the possibility to prevent negative spillover from work by inducing feelings of gratitude for the partner, constructed to increase one's psychological availability for the partner. Results confirmed that in spite of depletion by the workday, gratitude for the partner helped to positively affect relationship behavior. Thus, when work makes it hard to be psychological available for one's family members, gratitude can help to prevent from negative spillover and contribute to positive family interactions.

5.2 For whom work spills over into the family

The second main conclusion of the current dissertation is that although all employees will be affected by work occurrences from time to time, some employees let work affect their family interactions more than others. The following paragraphs discuss the results of the examination of integration versus segmentation as boundary management strategy and the personality characteristic dispositional self-control, both affecting the degree to which spillover between work and the quality of family interactions occurs.

5.2.1 Positive spillover favors a segmenting boundary management style

Results reported in Chapter 3 showed that individuals enacting an integrating boundary management strategy experienced negative but no positive spillover, while individuals enacting a segmenting management strategy experienced positive but no negative spillover. These results were found for the spillover from work via psychological availability into the quality of interactions between parents and their children. Boundary theory (e.g., Ashfort, Kreiner, & Fugate, 2000) postulated that a segmenting boundary management style would prevent spillover, and an integrating boundary style would allow spillover to take

place. Results of the current dissertation however, indicate that this only is the case for negative spillover. Unexpectedly however, opposite effects were found for positive spillover. Rather than preventing positive spillover, a segmenting boundary management strategy did allow for positive spillover. In the same vein, an integrating management strategy did not allow for positive spillover as expected, but instead prevented individuals from experiencing positive spillover.

The advantages and disadvantages that boundary theory attributes to both integration and segmentation (Ashfort et al., 2000) were thus not reflected in the spillover that was studied in the current dissertation. For parents that integrate work and family roles, this unexpected finding might be explained by the phenomenon that negative events have a stronger impact than positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). When both negative and positive spillover take place among integrators as was originally expected, the positive spillover might be overruled by the negative spillover according to the 'bad is stronger than good' phenomenon.

By contrast, results of the current dissertation suggest that segmenting parents, who prevent negative spillover, do have room for positive spillover. When letting spill over happen might occur more automatically, preventing spillover might require some attention and action, a segmenting boundary management strategy could be argued to be a more conscious or active strategy than integration. As results evoke a recommendation for parents to segment work and family domains, the question that follows is why not all parents choose for a segmenting boundary management strategy. But not all parents might have the ability to intentionally detach from work-related negative thoughts and feelings when switching between roles. For example, detaching from thoughts and emotions requires sufficient self-control skills (e.g., Muraven & Baumeister, 2000), which are attributed to parents in differing degrees. In answer to this question, the current dissertation examined the role of self-control in work-family spillover (Chapter 3). Results of these examinations will be discussed under the following heading.

The results found in Chapter 2 thus indicate that a segmenting boundary management strategy yields more positive results than an integrating strategy. The tendency to integrate work and family life may emotionally distract or mentally preoccupy the parent, hindering a sensitive focus on the child (Roeters, Van der Lippe, & Kluwer, 2010), whereas segmenting work and family domains

may help parents to distance from work issues, which helps them to focus attentively on the child. These results point in the same direction as the studies that found a positive association between integration and work-family conflict (Desrocher, Hilton, & Larwood, 2005; Kossek, Lautsch, & Eaton, 2006; Kreiner, 2006), and contradict the studies that found a negative association between integration and work-family conflict (Rau & Hyland, 2002; Rothbard, Philips, & Dumas, 2005). When taking a closer look at the studies in the previous literature, there is a wide variation in the operationalization of integration, nearly as wide as the number of studies itself. The main difference between those studies - which could explain their contradictory results - appears to be whether integration was operationalized as a policy or as a strategy.

Integration operationalized as policy means that a certain arrangement within an organization is used or (perceived as) accessible by the employee (e.g., onsite daycare), which *could* stimulate employees to adopt an integration strategy (e.g., Rau & Hyland, 2002; Rothbard et al., 2005). In contrast, studies that operationalized integration as a strategy (including the current research) assessed whether individuals actually tend to segment or integrate their work and family roles, often performed by asking whether individuals perceived their roles as integrated, instead of asking for explicit integrative behaviors. Thus, an integrative policy does not mean that individuals actually enact an integration strategy, and even more plausible, it does not automatically mean that individuals perceive their roles as integrated. This implies that previous literature regarding integration may not be as contradictory as it seems, because a negative association between an integrative policy and work-family conflict does not necessarily contradict with the finding that an integrative strategy is positively related to work-family conflict.

The results of the current research are in line with previous literature that also assessed integration as a strategy, and can coexist well with the findings of the studies that assessed integration as policy. Policies that enable employees to move flexibly between work and family roles seem to have a positive effect. At the same time, the perception that work and family roles are integrated seems to have a negative effect. Thus, although role-combining *actions* of individuals or *policies* of organizations might stimulate integration, as long as individuals *perceive* work and family roles as separated, research suggests that they experience less work-family conflict (Desrocher et al., 2005; Kossek et al.,

2006; Kreiner, 2006) or more positive spillover from workday residuals into the parent-child relationship (Chapter 2). This perception of integration might indeed partly be stimulated or influenced by actions or policies, but some individuals might be able to set boundaries in their mind between work and family for themselves.

5.2.2 Dispositional self-control prevents negative spillover

In an attempt to capture why some dual-earners are better able to combine work and family than others, integration was expanded with the personality characteristic dispositional self-control. Results of Chapter 4 showed that having high dispositional self-control skills diminished negative spillover between individuals' work and their partner interactions. More specifically, results showed that partner interactions of individuals characterized by high dispositional self-control were typically less affected by depletion that is induced by workday experiences than the interactions of individuals with lower dispositional self-control. These results are in line with results of previous studies that showed positive effects of dispositional self-control on relationship functioning (e.g., Finkel & Campbell, 2001).

In addition to the hypothesized findings, an interesting additional finding of the current dissertation was that the results suggest that individuals high in dispositional self-control become depleted after the workday and experience a decrease in their psychological availability for their partner just like individuals low in self-control, are still able to engage in positive relationship behavior. A plausible explanation for this finding can be derived from research on automatic behavior. Because habits appear relatively automatic, habitual behavior should consume less self-regulatory resources than behavior that is not habituated (Baumeister & Alquist, 2009). De Ridder and colleagues (2012) suggested that individuals high in dispositional self-control might be good at automatizing positive or healthy behavior into habits. If this is indeed the case, then it should cost less self-regulatory resources to perform these behaviors. This could explain why individuals high in dispositional self-control can still perform positive relationship behavior in spite of the depletion of self-regulatory resources and diminished psychological availability for the partner, as positive relationship behavior is performed automatically. It would be interesting to further examine this possible explanation in future research.

For individuals that are not advantaged with high dispositional self-control skills, the current research examined the possibility to prevent negative spillover from work into the partner relationship by inducing feelings of gratitude for the partner at the end of the workday. Gratitude was theorized to evoke positive feelings that would broaden and build psychological resources (Frederickson, 2001), and to direct these at the partner, thus increasing one's psychological availability for the partner. Results confirmed that in spite of depletion by work, gratitude for the partner increased positive relationship behavior for individuals with low dispositional self-control skills.

In sum, combining work and family roles seems to be easier for individuals with good self-control skills. The current dissertation adds to the previous literature by showing the advantageous characteristics of dispositional self-control in the work-family spillover context. As the results of the current dissertation suggest, it prevents an individual who is depleted by work and is less psychologically available for his or her partner, to let this affect relationship behavior at home. This implicates that individuals low in dispositional self-control should put effort in preventing negative spillover by work, for example by reminding themselves of their gratitude for their partner after the workday.

5.3 Theoretical contributions

In discussing the results of the current dissertation in the preceding sections, various contributions of specific results to the existing work-family literature were already mentioned. The first main contribution to the work-family literature concerns introducing a new linking mechanism, psychological availability, that connects and extends the scarce and fragmented literature on previously studied linking mechanisms (i.e., the different workday residuals). More specifically, adding psychological availability to the examination of the spillover process clarifies the positions and functions of the different previously studied workday residuals, and also indicates how these workday residuals affect relationship behavior; i.e., by altering the level of psychological resources that is available for relationship behavior. Introducing psychological availability to the work-family literature therefore contributes to a more comprehensive understanding of the spillover process between work and family relationships.

The second main contribution is the finding that individual differences affect work-family spillover, i.e., segmenting work and family roles and good

dispositional self-control skills were found to be beneficial for the quality of family relationships when combining work and family roles. Results of the current dissertation add to the few studies that examined individual differences (e.g., Wayne, Musisca, & Fleeson, 2004), and therefore also function as a response to the call for more focus on individual differences and psychological characteristics as antecedents of conflict and stress, as there was a disproportionate emphasis on environmental and situational factors as the dominant sources of work-family conflict in the work-family literature (Parasuraman & Greenhaus, 2002). In addition, the current dissertation extends the work-family literature by analyzing a substantial part of the data according to dyadic data principles, counterbalancing the overemphasis on the individual level of analyses in the work-family literature (Parasuraman & Greenhaus, 2002).

The present dissertation also contributes to the organizational literature in general by examining relevant outcomes in the family domain. Studies examining the impact of work in the family domain largely focused on individual well-being factors such as role strain or work-family conflict, and surprisingly devoted less attention to family functioning (Perry-Jenkins, Repetti, & Crouter, 2000). Family functioning is relevant for organizations, because family functioning in turn also impacts work performance (see Greenhaus & Powell, 2006). For example, Ten Brummelhuis and colleagues (2010) found that fulfillment and skills gained in the family domain were positively related to team performance at work. By examining work-related antecedents of the quality of partner interactions and parent-child interactions at home, the current dissertation adds to the scarce but relevant focus on family functioning in the organizational literature.

5.4 Methodological contributions

A methodological contribution of the current dissertation is the development of the new scale that measures 'daily psychological availability' for the partner and the child. For the development of this scale, a pilot study, exploratory and confirmatory factor analyses were conducted and the discriminant validity was evaluated (see Chapter 2). Although in the current dissertation the daily psychological availability scale was used in the work-family context, the scale can be used in other contexts within relationship research. For

example, the scale could also be used to examine whether symptoms of depression affect relationship functioning via psychological availability for the partner. In sum, the development of the daily psychological availability provides an important methodological contribution to relationship research.

Second, I expended previous literature by including a study using a quasi-experimental design, because most previous literature merely relied on correlational studies (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007). The gratitude writing task, which was aimed to increase psychological availability for the partner, enhanced the validity of the results based on the correlational studies. In addition to bringing variety in methods, the gratitude writing task can also function as a base for possible interventions that can be developed to prevent dual-earners from negative spillover.

Finally, I extended the work-family literature by analyzing a substantial part of the data reported in this dissertation according to dyadic data principles, counterbalancing the overemphasis on the individual level of analyses in the work-family literature (Parasuraman & Greenhaus, 2002).

5.5 Limitations and future research

Several limitations of this research should be mentioned. First, part of the data of this dissertation relied on self-reports, which means I cannot rule out that common-method bias may have colored the results. However, the results of Chapter 2 (i.e., negative and positive spillover from work through psychological availability into marital interactions) were confirmed by partner-reports of the partner interactions, which reduced the concerns for common-method bias in that particular study. Second, most study designs were cross-sectional and can therefore not support causal inferences. In particular because the spillover process as it was assessed in the current research included a new concept that has not been established by previous research yet. Therefore longitudinal research, preferably also using other ratings than self-reports, is certainly needed to verify that work experiences spill over, through psychological availability, into family interactions. Third, the samples consisted mainly of highly educated dual-earner families with school-aged children, in which women often worked part-time. Although this is representative of the Dutch dual-earner population (Merens & Hermans, 2009), it limited our ability to generalize findings to other populations. Future research is needed to examine whether these

mediating and moderating spillover effects also occur in dual-earner families in different national contexts or in families with other family structures.

In addition to these suggestions, more studies are needed to refine insights into individual differences that were found in the current research. Since the current research indicated that segmentation as boundary management strategy is most advantageous with regard to family relationships, it would be informative to investigate which personality variables predict an individual's type of boundary management strategy. The current research found that in addition to a segmenting boundary management strategy, dispositional self-control also prevents individuals from negative spillover and allows for positive spillover. An interesting question that can be derived from these results is whether high dispositional self-control skills empower employees to set clear boundaries between the work and family domain by themselves, when boundaries are not clearly provided by work. Moreover, an investigation of which specific work arrangements or organizational norms and values stimulate integration or segmentation for different types of individuals, would greatly increase our understanding of harmful and beneficial combinations of work conditions and personality characteristics.

Future research should also examine additional pathways through which workday residuals might affect family interactions. We assessed psychological availability as a mediator in the spillover process, because an investigation of the literature about the spillover of different workday residuals into the family domain pointed in that direction. However, it would be interesting to evaluate other possible mechanisms next to psychological availability that could link the work and family domain. Can for example self-esteem explain how work is related to family functioning (Grimm-Thomas & Perry-Jenkins, 1994)? Assessing various mediators next to each other will provide a more comprehensive understanding of the spillover between work and family. In addition, it would be highly relevant for practice to perform an in-depth investigation of various specific work experiences (i.e., work demands and resources) and the specific workday residuals, and examine which work experiences and workday residuals are most likely to spill over into the family domain.

5.6 Practical implications

In addition to theoretical and methodological contributions, the findings of this dissertation have several practical implications that can guide practitioners, human resource managers and policy makers, to support dual-earner families dealing with combining the responsibilities of work and family life.

5.6.1 Implications for practitioners

There are several ways in which practitioners can assist families to improve combining work and family responsibilities, such as family therapists or work-life balance coaches. One way of counseling dual-earners could be to create awareness that it is important to be psychologically available when spending time with family members. With the modern technologies it is easy to keep the mind at work while at home. Practitioners can guide dual-earners in searching for ways to clarify boundaries between the work and family domain, for example to use separate phones and email addresses for work and family, or to set particular times that are strictly family moments in which no call, email or deadline can interfere. This may help individuals to detach from work, segment their work and family life and prevent negative spillover (Chapter 3).

Second, practitioners can help dual-earners to stimulate positive spillover from work by looking for aspects of work that give them energy and thereby increase their positive workday residuals (Chapter 2 and 3). Moreover, practitioners could develop or promote using a mobile phone app that helps dual-earners to remind and facilitates them to report their gratitude for their partner after the workday. The induction of feelings of gratitude directly after the workday can improve partner interactions during the evening, as suggested by the results of the current dissertation (Chapter 4).

Another way negative spillover could be diminished is by training individuals' general dispositional self-control skills, which can for example be attained by a regular exercising program of two months (Oaten & Cheng, 2006). Increased self-control skills should help individuals to prevent negative spillover and thereby enhance positive relationship behavior (Chapter 4). Finally, based on the suggestion of De Ridder and colleagues (2012), practitioners could help to habituate positive relationship behavior at home. This could be achieved by practicing desired behavior for such a number of times that the behavior becomes a custom, with the intended result that relationship behavior will not be

affected that much by fluctuations of psychological availability or experiences of the workday anymore (Baumeister & Alquist, 2009; De Ridder et al., 2012).

In addition to practitioners such as family therapists or work-life balance coaches that more obviously come across work-family issues, results of the current dissertation also provides insights for other practitioners, such as academic counselors or career coaches. These practitioners can guide individuals when planning their career path, by evaluating which type of job or type of organizational culture would fit the individual best, which gives the most energy, increasing the chances to experience positive work experiences and diminishing the chances for negative work experiences.

5.6.2 Implications for human resource managers

Human resource managers can both increase work performance as well as positive work-family spillover when examining individual characteristics of an employee, by assessing what gives a particular employee energy and what costs energy. Putting employees on work tasks or within teams that matches their personality could increase the days that dual-earners come home with positive workday residuals, and human resources managers have thereby the possibility to increase relationship functioning.

In response to the raising number of individuals that combine work and family roles, the number of organizations that implement a variety of flexibility policies has also increased (Gajendran, & Harrison, 2007). Is this a positive development? Flexibility policies can encourage individuals to adopt an integration strategy (Kossek et al., 2006), but results of the current research indicate that it is better to perceive work and family roles as segmented. I would not suggest abolishing flexible arrangements, but to profit from the flexibility and the positive effects of such arrangements (e.g., working at home increases general well-being; Kossek et al., 2006) and to devote special attention to the creation of clear boundaries around these flexible work arrangements.

When offering flexibility in when and where to work, organizations could clarify boundaries by other means than strict work hours or permanent workplaces, for example by creating a culture in which overwork is not appreciated, or that it is expected to finish all given holidays. Or, for example, by creating a culture in which it is not expected to be accessible by phone or mail outside work-time, or that it is expected to work hard during work-time but

not to finish work during time off. When employees manage their own work-time, insight in the time spent at work (e.g., by using a phone app to register the amount of time spent working) might help to differentiate between work-time and time off. These boundaries provided by organizations could help their employees to perceive work and family roles as segmented, which should foster family relationships by preventing negative spillover while allowing for positive spillover.

As discussed earlier, there is an important difference between flexible policies provided by the organization and strategies as perceived by employees. Flexibility policies can encourage individuals to adapt certain strategies (Kossek et al., 2006), but not all individuals will adopt an integrative strategy when the organization offers flexibility policies. To maximally profit from the benefits of flexibility policies, without reaping the negative effects of integration, I suggest that organizations facilitate employees to organize arrangements in such a way that it fits as much as possible to the individual employee. This suggestion is supported by studies that found individual differences in the effects of flexible arrangements. For example, an important predictor of work-family conflict was the similarity between the employee's desire for possibilities to integrate or segment and the type of policy of the organization (Rau & Hyland, 2002; Rothbard et al., 2005). Another example is Anderson and colleagues' work (2014), who found that working at home increased daily job-related affective well-being, but less for individuals who tend to ruminate, and more for individuals high in openness and high in social connectedness outside work. Also based on the results of Chapter 4 of the current dissertation, I suggest looking at individual differences when considering flexibility policies, as positive spillover between work and the partner relationship is more evident for individuals high in dispositional self-control compared to individuals low in dispositional self-control. Thus, organizations should consider the individual differences between employees, for example by implementing personality assessments, before assuming that certain work-arrangements will be beneficial for all employees.

5.6.3 Practical implications for policy makers

The Dutch government aims to promote women to pursue a career and to work as many hours as possible (Merens et al., 2012). In addition, in a report on gender equality for the European Union (Mills, Tsang, Präg, Ruggeri, Miani, &

Hoorens, 2014), flexible work hours was mentioned as a promising strategy to alleviate problems to combine work and family responsibilities and thereby to achieve better gender equality in the labor market of the EU. However, as discussed above, flexible policies can lead to further integration of work and family, and can thus decrease the psychological availability to the extent that could deteriorate family relationships of dual-earners. Healthy relationships are essential for the well-being of both adults and children (Gottman & Silver, 2012; Repetti et al., 2012), and are thus also important for society. I therefore suggest that when policy makers promote parents to combine work and family responsibilities, attention should be paid to how families can achieve this optimally, without risking a deterioration of their family relationship. The suggestions that I mentioned in the preceding sections provide useful starting points to prevent negative spillover and enhance positive spillover for dual-earner families.

5.7 Concluding remarks - What about the dustcloth and the ribbon?

This dissertation provides insight into how and for whom the remainders of the workday spill over into family interactions after the workday. Specifically, negative workday residuals were related to a decrease in the quality of interactions with the partner or child via a decrease in psychological availability, but especially for individuals who tend to integrate work and family life and for individuals low in dispositional self-control. Positive workday residuals were related through an increase in psychological availability to higher quality interactions with partner and child, especially for individuals with the tendency to segment work and family life and for individuals high in dispositional self-control. Psychological availability for family members thus plays an important role in the spillover process from work to family relationships, especially in the absence of the individual's ability to prevent negative spillover. Because work can also bring a positive boost into family relationships, I would not suggest re-introducing the dustcloth and the ribbon as in the old-times division of roles, where one partner is expected to be totally available for the other, who is bored and wearied by work. However, both partners of dual-earner families can profit by putting effort in being psychologically available for each other and for the children after every workday.

Summary in Dutch
Nederlandse samenvatting

Op sommige werkdagen gaat een werknemer gefrustreerd of uitgeput naar huis, terwijl andere dagen het werk enthousiasme en voldoening met zich meebrengt en de werknemer fluitend naar huis fietst. Eerder onderzoek heeft laten zien dat de toestand waarin iemand na het werk naar huis gaat invloed heeft op de gezinsrelaties, zowel negatief als positief (e.g., Repetti, Wang, & Saxbe, 2009; Story & Repetti, 2006). In dit proefschrift heb ik onderzocht hoe deze 'bagage' van de werkdag de dagelijkse interacties van tweeverdieners met hun partners en kinderen beïnvloedt. Bovendien heb ik in dit proefschrift gekeken naar welke kenmerken van personen er voor zorgen dat mensen hun werk mee naar huis nemen of juist niet.

Om het mechanisme dat tussen het werk en het gezin plaatsvindt te ontrafelen, heb ik in dit proefschrift het concept 'psychologische beschikbaarheid' geïntroduceerd. Psychologische beschikbaarheid wordt gedefinieerd als de mogelijkheid en de motivatie om psychologische bronnen in te zetten voor de omgang met de partner of het kind. Dit houdt in dat een persoon er mentaal helemaal voor zijn of haar partner of kind kan zijn, zich goed kan inleven in de ander, en interacties zodanig op de ander kan afstemmen dat in de behoeften van de ander wordt voorzien. Ik beargumenteer dat dit ervoor zorgt dat interacties sensitief en constructief zijn, wat de kwaliteit van de relaties in het gezin bevordert. Wanneer iemands hoofd vol zit met de problemen en de stress van het werk, dan is er geen ruimte om na te denken over wat de ander bezighoudt, waardoor het moeilijk wordt om sensitief en responsief te reageren op de partner of het kind.

De resultaten van een eigen vragenlijststudie onder 335 Nederlandse tweeverdieners met schoolgaande kinderen en drie kleinere studies laten zien dat de psychologische beschikbaarheid voor de partner of het kind inderdaad een verklarende link is in de 'spillover' van werk naar gezinsrelaties. Specifiek gezegd was het meenemen van negatieve bagage na de werkdag, zoals een negatieve stemming, piekeren over het werk, of uitputting door het werk, via een afname in psychologische beschikbaarheid voor gezinsleden, gerelateerd aan een lagere kwaliteit van interacties met de partner of het kind (bv. meer boosheid en terugtrekgedrag, en minder positieve interacties). Ook was het mee naar huis nemen van positieve bagage na de werkdag, zoals een positieve stemming of opgebouwde energie, gerelateerd aan een hogere kwaliteit van interacties met de partner of kind.

Niet iedereen neemt bagage, zoals een negatieve stemming, vanuit het werk mee naar huis. De resultaten van het vragenlijstonderzoek lieten zien dat mensen die de neiging hadden om werk en gezin van elkaar te scheiden, geen negatieve 'spillover' maar wel positieve 'spillover' rapporteerden, terwijl dit voor mensen die hun werk en gezinsleven juist integreerden precies andersom gold; zij ondervonden wel negatieve 'spillover' van werk naar interacties met hun kind, maar geen positieve. Deze resultaten geven aan dat de manier waarop mensen hun verschillende rollen combineren, in dit geval die van werknemer en ouder, belangrijke implicaties heeft voor de relaties in het gezin. Verder laten de resultaten van de drie kleinere studies onder tweeverdieners met kinderen zien dat afhankelijk van iemands dispositionele zelfcontrole, de staat waarin iemand zijn werk verlaat gerelateerd is aan de interacties met de partner. Alleen mensen met een lage zelfregulatie ondervonden negatieve effecten van het werk, via een verminderde psychologische beschikbaarheid voor de partner, op de kwaliteit van hun interacties thuis.

Voor de mensen die niet begunstigd zijn met een hoge zelfcontrole heb ik onderzocht hoe op een andere manier negatieve 'spillover' voorkomen kan worden. Met als doel de psychologische beschikbaarheid te verhogen, hebben tweeverdieners na de werkdag drie punten opgeschreven waar ze hun partner dankbaar voor zijn. Dankbaarheid is namelijk een emotie die zowel positief en dus energieverhogend is (Frederickson, 2001), als op de ander gericht. Dit zijn de twee belangrijkste kenmerken van psychologische beschikbaarheid (i.e., de mogelijkheid en motivatie om psychologische bronnen op de partner of het kind te richten). De resultaten van deze quasi-experimentele studie lieten zien dat de mensen die de dankbaarheidstaak hadden uitgevoerd minder negatieve 'spillover' ondervonden dan mensen die deze taak niet hadden uitgevoerd. Dit gold echter alleen voor de mensen met een lage zelfcontrole; mensen met een hoge zelfcontrole rapporteerden sowieso goede interacties, ongeacht of ze de dankbaarheidstaak hadden uitgevoerd of niet. Deze resultaten impliceren dat men kan voorkomen dat een veeleisende werkdag een negatieve impact heeft op de partnerrelatie, of door een goede dispositionele zelfcontrole, of door het stimuleren van dankbare gevoelens voor de partner.

Afgezien van de aanwezige beperkingen, draagt dit proefschrift bij aan de bestaande literatuur door de uitgebreide bestudering van de verschillende stappen in het 'spillover' proces van werk naar gezinsrelaties. Bovendien zijn de

bevindingen over de individuele verschillen in het 'spillover' proces een belangrijke aanvulling op de weinige studies die naar individuele verschillen hebben gekeken. In het bijzonder is de ontwikkeling van het concept 'psychologische beschikbaarheid' en een instrument om dit te meten een waardevolle aanvulling op de werk-gezin literatuur. Het toevoegen van psychologische beschikbaarheid verbindt, verheldert en breidt eerdere bevindingen over verbindende mechanismen die de 'spillover' tussen werk en gezin verklaren uit. Verder kenmerkt dit proefschrift zich doordat de data niet op individueel niveau maar op koppelniveau geanalyseerd zijn. Beide partners uit het gezin hebben meegedaan aan de vragenlijststudie en ze zijn beiden in eenzelfde model geanalyseerd volgens dyadische data principes, waardoor er rekening gehouden kon worden met de afhankelijkheid tussen partners. Bovendien hebben partners niet alleen over hun eigen gedrag gerapporteerd, maar ook over dat van hun partner, waardoor de resultaten op basis van zelfrapportage gevalideerd kon worden door een partnerrapportage. Als laatste is een belangrijke bijdrage van dit proefschrift dat er een basis is gelegd voor een interventie met als doel om de mogelijk negatieve invloed te voorkomen die werk kan uitoefenen op gezinsrelaties.

Bij elkaar genomen dragen de resultaten van dit proefschrift dus bij aan een completer beeld van de 'spillover' tussen werk en gezinsrelaties. Kort gezegd is de negatieve bagage die iemand na het werk mee naar huis neemt gerelateerd aan een afname in de kwaliteit van interacties met gezinsleden door een lagere psychologische beschikbaarheid. Dit betrof voornamelijk mensen die werk en gezin integreerden en mensen met een relatief lage zelfcontrole. Aan de andere kant waren positieve werkervaringen via iemands psychologische beschikbaarheid gerelateerd aan een hogere kwaliteit van gezinsrelaties, echter voornamelijk voor de mensen die hun werk en gezin scheidde, en voor de mensen met een goede zelfcontrole. Psychologische beschikbaarheid voor de andere gezinsleden vervult dus een belangrijke rol in de 'spillover' tussen werk en gezinsrelaties, vooral in de afwezigheid van iemands natuurlijke vermogen om negatieve 'spillover' tegen te gaan. Voor partners uit een gezin van tweeverdieners met jonge kinderen loont het dus de moeite om zich in te spannen om na iedere werkdag zo psychologisch beschikbaar mogelijk te zijn voor elkaar en voor de kinderen.

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