

6-30-2016

# Bi-directional Work-Family Affective Spillover: A Daily Diary Study

Michele Wilk Gazica

University of South Florida, [mgazica@msn.com](mailto:mgazica@msn.com)

Follow this and additional works at: <http://scholarcommons.usf.edu/etd>

 Part of the [Other Psychology Commons](#)

## Scholar Commons Citation

Gazica, Michele Wilk, "Bi-directional Work-Family Affective Spillover: A Daily Diary Study" (2016). *Graduate Theses and Dissertations*. <http://scholarcommons.usf.edu/etd/6241>

This Thesis is brought to you for free and open access by the Graduate School at Scholar Commons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact [scholarcommons@usf.edu](mailto:scholarcommons@usf.edu).

Bi-directional Work-Family Affective Spillover:

A Daily Diary Study

by

Michele W. Gazica

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
with a concentration Industrial/Organizational Psychology  
Department of Psychology  
College of Arts and Sciences  
University of South Florida

Major Professor: Paul E. Spector, Ph.D.  
Tammy D. Allen, Ph.D.  
Michael Brannick, Ph.D.  
Doug Rohrer, Ph.D.  
Thomas E. Bernard, Ph.D.

Date of Approval:  
June 6, 2016

Keywords: affective spillover, affective events, psychosomatic complaints, work-family

Copyright © 2016, Michele W. Gazica

## ACKNOWLEDGMENTS

First, I would like to offer my gratitude to Paul Spector, my major advisor, for his guidance, inspiration, expertise, and mentorship throughout this journey. As his protégé, I developed into a thoughtful researcher, a caring teacher, and an insightful and flexible mentor. I came into this program a bit of an odd duck, but he allowed me to pursue my unique passions with patience and unwavering support. For that, I will always be grateful.

Second, I would like to thank my dissertation committee, Tammy Allen, Michael Brannick, Thomas Bernard, and Doug Rohrer. Their guidance, intellect, and constructive criticisms helped shaped this dissertation into a worthy pursuit. I also am thankful for Eun Sook Kim. She not only served as my dissertation chair but also taught me hierarchical linear modeling, without which I could not have analyzed my data.

Third, thank you to my lab mates and fellow graduate students for your instrumental and emotional support, without which I would have run to the hills long ago. Special shout outs go to Marijana Arvan, Seokjoon Chun, Kimberly French, Seulki Jang, and Chee Wee Koh for serving as my subject matter experts in the development of the Affective Events Inventory and Stephanie Anandel, Kevin Martyn, Shani Pindek, and Dov Murik for saving me with their varied expertise.

Fourth, thank you to the CDC/NIOSH supported Sunshine ERC at the University of South Florida for providing me the means to successfully recruit participants for my dissertation.

Last but not least, thank you Samantha Powers and Cecelia Gazica for your love, support, and continued patience. I could not have done this without the both of you.

## TABLE OF CONTENTS

List of Tables .....	iv
List of Figures .....	v
Abstract .....	vi
Chapter One: Introduction .....	1
Work-Family Perspectives .....	2
The Negative Side of the Work-Family Interface .....	4
The Positive Side of the Work-Family Interface .....	7
Current Study .....	12
Theoretical Frameworks and Hypotheses .....	16
Affective Events Theory and Mood .....	16
Hypothesis 1 .....	17
Hypothesis 2 .....	17
Hypothesis 3 .....	18
Hypothesis 4 .....	18
Mood-Congruent Cognitions and Affective Spillover .....	19
Hypothesis 5 .....	20
Hypothesis 6 .....	20
Hypothesis 7 .....	20
Hypothesis 8 .....	21
Hypothesis 9 .....	21
Hypothesis 10 .....	21
Research question 1 .....	23
Research question 2 .....	23
Allostatic Load Model and Psychosomatic Health Outcomes .....	24
Hypothesis 11 .....	25
Hypothesis 12 .....	25
Hypothesis 13 .....	25
Hypothesis 14 .....	27
Hypothesis 15 .....	27
Research question 3 .....	28
Boundary Theory and Domain Integration .....	28
Hypothesis 16 .....	29
Social Role Theory and Role Salience .....	30
Hypothesis 17 .....	31
Hypothesis 18 .....	32
Hypothesis 19 .....	33

Hypothesis 20.....	34
Chapter Two: Method.....	35
Participants.....	35
Procedures.....	37
Informed Consent and Participant Training.....	37
Data Collection Procedures.....	38
Measures .....	39
Demographics .....	39
Role Salience .....	39
Domain Integration .....	40
Positive and Negative Affect .....	40
Sleep Quality.....	41
Physical Symptoms.....	41
Domain-Specific Affective Events .....	42
Development of the domain-specific affective events inventory .....	43
Data Structure and Quality.....	47
Data Analysis .....	52
Affective Spillover.....	53
Sleep Quality.....	53
Control Variables .....	54
State affect .....	54
Dispositional affect.....	55
Cross-Level Interactions .....	57
Within-Level Interactions .....	57
Chapter Three: Results.....	59
Hypotheses .....	59
Research Questions .....	68
Hypothesis 6a.....	69
Hypothesis 7.....	69
Hypothesis 8.....	70
Hypothesis 10a.....	70
Hypothesis 14a.....	70
Hypothesis 15.....	71
Chapter Four: Discussion.....	72
Within Domain Effects .....	72
Spillover Effects.....	73
Moderating Effects.....	76
Health Impacts .....	78
Theoretical Implications .....	80
Practical Implications.....	82
Limitations and Future Directions .....	84
Conclusions.....	86

References.....	88
Appendices.....	102
Appendix A: Items for Time 1 Survey and Daily Diaries .....	103
Appendix B: Study Hypotheses and Proposed Direction of Effects.....	108
Appendix C: Additional Tables .....	110

## LIST OF TABLES

Table 1: Affective Events Inventory by Category .....	48
Table 2: Intercorrelations among the Pilot Study's Focal Variables .....	50
Table 3: Pilot Study's Regression Analyses .....	51
Table 4: Descriptive Statistics for Time 1 Variables .....	61
Table 5: Descriptive Statistics, Intra-Class Correlation Coefficients, and Internal Consistency Reliability Estimates for Level 1 Variables .....	62
Table 6: The Frequency and Mean Proportion of Days an Affective Event Item was Endorsed .....	63

## LIST OF FIGURES

Figure 1: Wayne's (2009) conceptual model of the positive side of the work-family Interface .....	8
Figure 2: Visual representation of Hypotheses 1 and 2.....	18
Figure 3: Visual representation of Hypotheses 3 and 4.....	19
Figure 4: Visual representation of Hypotheses 5 and 6.....	20
Figure 5: Visual representation of Hypotheses 7 and 8.....	21
Figure 6: Visual representation of Hypotheses 9 and 10.....	22
Figure 7: Visual representation of Hypotheses 11, 12, and 13.....	26
Figure 8: Visual representation of Hypotheses 14 and 15.....	27
Figure 9: Visual representation of Hypothesis 16(a).....	29
Figure 10: Visual representation of Hypothesis 16(b) .....	30
Figure 11: Visual representation of Hypotheses 17 and 19.....	32
Figure 12: Visual representation of Hypotheses 18 and 20.....	33
Figure 13: Interaction between negative state affect immediately after work and domain Integration on the number of negative family events endorsed.....	67



## ABSTRACT

To date, most scholarship on work-family spillover effects has ignored the additive or interactive daily effects of experiences in both the work and family domains on important employee health outcomes. Thus, the overall purpose of this study was to investigate how both positive and negative domain-specific (i.e., work or family) affective events influence an employee's state affect, exposure to affective events in the alternative domain, and health and wellbeing, namely physical wellbeing and sleep quality.

This study drew upon the affective events and mood-congruent cognition theories to help explain how one domain influences the other. Affective events are things that happen to which people react emotionally and state affect is a result of those affective experiences. This study proposed that state affect generated in one domain would spillover and influence mood-congruent experiences in the receiving domain. Through an integration of organizational stressor-strain models (e.g., job-resources demand theory) and positive psychology, this study further proposed that positive events are resource-building and will work to prevent or buffer against strain responses to resource-depleting negative events. Finally, this study explored how individual differences in domain integration and work- and family-role salience moderate the foregoing relationships, particularly because studies investigating these effects have produced mixed results.

To address these empirical questions, this study used the daily diary method to examine daily affective spillover effects from work-to-family and from family-to-work in a full-time working sample over the course of two weeks. This method was employed to help bolster

confidence about the temporal precedence of work-family affective spillover and employee health and wellbeing outcomes. One-hundred and forty-four participants filled out diary questionnaires three times daily during the work week and one time daily during the weekend. Daily diaries assessed the participants' exposure to a number of domain-specific affective events, state affect, physical symptoms, and sleep quality. Hierarchical linear modeling was used to test this study's hypotheses.

Overall, the results of this study support affective spillover as the linking pin between the two domains, which has health and wellbeing implications for employees. Specifically, tests of this study's hypotheses indicated that exposure to affective events throughout the workday was related to state affect at the end of the workday, which then related to the number of valence-congruent affective events within the family domain. Exposure to those family-related affective events was related to corresponding changes in state affect, which not only persisted to the next morning but impacted employee health and wellbeing in terms of psychosomatic complaints. These findings are in line with both the affective events and mood-congruent theories.

Only one significant moderating effect was observed. There was a positive relationship between negative affect at the end of the workday and the number of negative family affective events endorsed by participants who were lower on domain integration, but not among those who were higher on domain integration. The direction of this effect was surprising and may suggest that setting up strong boundaries between life domains creates unattainable expectations, which may increase negative outcomes for an employee.

In sum, family-related affective experiences are an important variable to consider when investigating the effects of affective spillover on work-related experiences and health and

wellbeing. The failure to do so may result in a considerable loss of information and contribute to mixed study results.

## CHAPTER ONE

### INTRODUCTION

Work-family research is the study of how individual participation in either the work or family domain affects the individual and others (i.e., members of the individual's family- or work-group) in the alternative domain. The interaction between the two has gained growing research attention as a result of changing demographics in both domains (e.g., Allen, 2012; Greenhaus & Powell, 2006). Over the past several decades, the composition of the workforce has changed dramatically. The traditional conceptualization of the male breadwinner and the female caretaker is largely a thing of the past. Now, couples are increasingly dual-career and single parents with children continue to seek outside employment at high rates (Bureau of Labor Statistics, 2014). Consequently, both mothers and fathers likely have substantial responsibilities at both work and home. Understanding how and to what extent people integrate the two domains and the effects thereof on organizations and the health and wellbeing of individuals and close others is of the utmost importance for work-family scholars.

Notwithstanding the fact that employees spend a considerable time in both domains, organizational scholarship continues to deemphasize how experiences (beyond work-family conflict and enrichment episodes) within the family domain might impact experiences within the work domain and employee health and wellbeing. Failing to include these experiences may have contributed to mixed study results regarding the existence, relative strength, and employee health and wellbeing impacts of family-to-work and work-to-family daily affective spillover. Thus, this study investigated how daily domain-specific (work and family) affective (positive and negative)

events influence employees' within-domain state affect and how that within-domain state affect might spillover and affect employees' experiences in the alternative domain and psychosomatic complaints, specifically physical symptoms and sleep quality, in a sample of fulltime workers.

## **Work-Family Perspectives**

Three competing theoretical mechanisms were originally developed to help explain the connections between work and family: (1) segmentation, (2) compensation, and (3) spillover (Lambert, 1990; Edwards & Rothbard, 2000). The segmentation hypothesis argues that work and family domains are independent of and, thus, do not relate to one another. Contrarily, the compensation hypothesis suggests that employees compensate for dissatisfying experiences in one domain through increased involvement in the other. Finally, the spillover hypothesis holds that experiences in one domain can carry over into the receiving domain such that changes in one domain lead to commensurate changes in the other. The spillover hypothesis presumes that the two domains are interdependent. That is, participation in the family domain impacts the work domain, and vice versa. Work-family spillover can have both positive and negative effects on the receiving domain. For example, negative or positive experiences at home can spillover into the work domain and result in negative or positive experiences, respectively, at work.

The spillover hypothesis has received the most empirical support (Allen, 2012), suggesting that experiences in one domain do in fact impact experiences in the other. Role theory (Katz & Kahn, 1978) has been the dominant theoretical lens through which work-family scholars try to explain the impact of one domain on the other. Beneath its umbrella, two related but distinct perspectives have emerged. The first is the role conflict perspective. People take on many different life roles, including but certainly not limited to work, parental, and marital roles.

In 1960, Goode proposed the scarcity hypothesis, which argues that individuals have a finite supply of time and energy to devote to any given life role. Thus, when individuals deplete time and energy in one role, then they will have less to devote to others. Thus, role conflict is inevitable. The more life roles that one accumulates, the more likely he or she will experience interrole conflict (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964).

The second is the role enhancement perspective. Challenging the scarcity hypothesis, the role enhancement theory argues that participation in multiple roles may result in benefits that outweigh costs (Sieber, 1974; Marks, 1977). Some empirical work supports this theory (e.g., Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005; Prottas & Hyland, 2011). For example, Hammer et al. (2005) found that the benefits of multiple role participation had a stronger impact on depression than did incompatibilities.

Benefits that may be gained in one role to the benefit of another have been operationalized in various ways, including but not limited to gaining knowledge and skills (e.g., Carlson, Kacmar, Wayne, & Grzywacz, 2006; Greenhaus & Powell, 2006; Edwards & Rothbard, 2000), creating a buffer in one role against disappointment or dissatisfaction in another (Barnett & Hyde, 2001); increasing the availability of social support (Barnett & Hyde, 2001), and generating positive affect and energy in one role that leads to the same in another (Edwards & Rothbard, 2000). Indeed, empirical work on the positive side of the work-family interface has shown links between multiple role participation and several individual health and well-being variables, including better health (e.g., Waldron, Weiss, & Hughes, 1998), greater financial security (e.g., Waldron et al., 1998), and increased social support (e.g., Greenberger & O'Neil, 1993).

As will be more thoroughly discussed below, most work-family scholarship has studied one perspective to the exclusion of the other. This trend has impeded an integrative theoretical understanding of the work-family interface, which, as defined, presumes a dynamic, bi-directional phenomenon. Consequently, this dissertation will explore how daily positive and negative affective events in both the work *and* family domains interact to affect an employee's health and wellbeing, in terms of state affect, physical symptoms, and sleep quality.

### **The Negative Side of the Work-Family Interface**

Much of the extant work-family literature focuses on the conflict between work and family domains from an individual's perspective (Grzywacz, Carlson, Kacmar, & Wayne, 2007). Work-to-family conflict is specifically defined as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role” (Greenhaus & Beutell, 1985, p. 77). Work-family conflict is the basic mechanism by which work and family negatively influence one another. More recent definitions of work-family conflict make clear that a negative impact on performance is a prerequisite for work-family conflict to occur. For example, Greenhaus, Allen and Spector (2006) specifically define work-family conflict as the extent to which experiences in one role result in diminished performance in another role.

The nature of the conflict is multidimensional. For example, Greenhaus and Beutell (1985) proposed a three-dimensional work-family conflict structure: (1) time-based; (2) strain-based; and (3) behavior-based. Time-based conflict occurs when time spent in one role interferes with the ability to successfully meet the responsibilities of another role. Strain-based conflict

occurs when stressors associated with one role are carried over and negatively affect performance in another. Finally, behavior-based conflict occurs when behaviors required of one role are incompatible with behaviors expected in another role. Others have modified this structure to include, for example, effort- and emotion-based dimensions of strain (Greenhaus et al., 2006), and an additional psychological-based conflict dimension (van Steenbergen, Ellemers, & Mooijaart, 2007).

Work-family conflict is bi-directional (Greenhaus & Beutell, 1985). In explanation, work interference with family (WIF) is a distinct construct from family interference with work (FIW), each of which has its own unique nomological network (e.g., Carlson, 1999; Mesmer-Magnus & Viswevaran, 2006). For example, recent meta-analytic work showed that work-related factors (e.g., job stress, coworker support) were more likely to contribute to WIF, while family-related factors (e.g., family stress, spousal support) were more likely to contribute to FIW (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). The direction of the conflict is ascertained only after a decision has been made favoring one domain over the other. For example, if a mother chooses to attend her daughter's soccer game instead of attending a client meeting scheduled at the same time, then FIW has occurred rather than WIF. Research, however, suggests that those decisions generally favor work over family (Bellavia & Frone, 2005).

The extant literature on work-family conflict, including a number of quantitative and qualitative reviews, leaves little doubt that work-family conflict is related to a variety of employee and organizational outcomes (Allen, 2012). For example, a review chapter by Greenhaus et al. (2006) found clear empirical support for positive relationships between work-family conflict and a variety of psychological wellbeing indicators, such as depression, anxiety, emotional strain, and life dissatisfaction. Hammer and Zimmerman (2011) conducted a broader



review of the literature and found ample support for relationships between work-family conflict (both directions) and work and family stress, work and family satisfaction, turnover intentions, organizational commitment, job performance, absenteeism, and health-related behaviors. These authors also found that WIF had a stronger impact on family outcomes, while FIW had a stronger impact on work outcomes (see also reviews by Allen, Herst, Bruck, & Sutton, 2000; Dorio, Klein, & Allen, 2008; Greenhaus et al., 2006; Kossek & Ozeki, 1999). The bulk of this work has been based on cross-sectional research designs, although work employing longitudinal research designs is growing. For example, Grandey, Cordeiro, and Crouter (2005) found longitudinal support for the relationship between work-family conflict and job satisfaction, while Grant-Vallone and Donaldson (2001) found similar support for the relationship between work-family conflict and wellbeing. It should be noted, however, that some longitudinal studies suggest unexpected casual flows. For example, psychological wellbeing has acted as an antecedent to, rather than an outcome of, work-family conflict (e.g., Kinnunen, Geurts, & Mauno, 2004).

Going forward, more sophisticated research designs are required to fully appreciate work-family conflict-outcome relationships (Allen, 2012). Indeed, scholars are calling for approaches to work-family conflict research that go beyond between-subject designs (Maertz & Boyar, 2011). “Episodic” designs, such as within-subject longitudinal designs and experience sampling techniques, have more potential than the “levels” approach to clarify the causal direction of work-family conflict-outcome relationships, how perceptions of work-family conflict change over time, the most effective coping strategies to employ, and the “direction” of the conflict (i.e., WIF or FIW; Maertz & Boyar, 2011).

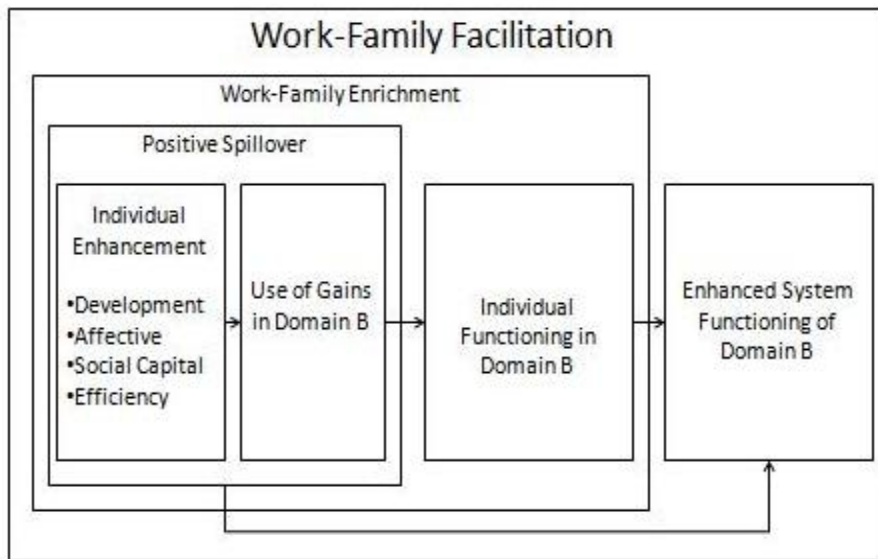
Episodic work thus far (e.g., Doumas, Margolin, & Richards, 2003; Judge, Iles, & Scott, 2006; Martinez-Corts, Demerouti, Bakker, & Boz, 2015; Sanz-Vergel, Rodriquez-Monuz, & Nielson, 2015) suggests that work-family conflict varies considerably day to day and largely supports cross-sectional work; that is, negative experiences in one domain can spillover and negatively affect the other on a daily basis. For example, Sanz-Vergel et al. (2015) recently found that FIW predicted interpersonal conflicts at work, which then predicted interpersonal conflicts at home the same day.

### **The Positive Side of the Work-Family Interface**

Over the last several decades, the role conflict perspective has dominated the work-family literature. However, as a direct result of numerous calls to explore the positive side of the work-family interface (e.g., Barnett & Hyde, 2001; Frone, 2003; Parasuraman & Greenhaus, 2002), research exploring the benefits of multiple role participation has burgeoned over the past ten years (Allen, 2012). Research to date supports the notion that work and family can benefit one another and that these benefits are distinct from incompatibilities (e.g., Barnett & Hyde, 2001; Grzywacz & Butler, 2005; Grzywacz & Marks, 2000). Until recently, however, a lack of conceptual clarity among the constructs that make up the positive side of the work-family interface has impeded theoretical development (Carlson et al., 2006; Greenhaus & Powell, 2006; Hanson, Hammer, & Colton, 2006; Wayne, 2009).

There are a number of highly related, yet conceptually distinct, constructs that make up the positive side of the work-family interface and include individual enhancement, work-family positive spillover, work-family enrichment, and work-family facilitation, all of which are defined in more detail below. Unfortunately, many studies either have neglected to define their positive

work-family constructs or have treated them as interchangeable (Hanson et al., 2006), which has contributed to a confusing array of research findings (Parasuraman & Greenhaus, 2002). To rectify this situation, Wayne (2009) created a conceptual framework that carefully draws distinctions between each of the foregoing positive work-family constructs and clarifies the process by which gains accrued in one domain may spillover and benefit the other at, potentially, multiple levels. See Figure 1 below for a graphical representation of Wayne’s (2009) proposed conceptual model.



**Figure 1.** Wayne’s (2009) conceptual model of the positive side of the work-family interface.

According to Wayne (2009), individual enhancement is required before gains realized by an individual in one domain can crossover to the benefit of another domain. Individual enhancement is specifically defined as the process by which an individual, through his or her participation in a given domain, accrues gains within that domain (Wayne, 2009). As so defined,

individual enhancement is an intra-role phenomenon but a necessary prerequisite to positive inter-role interactions.

Sieber (1974) and Marks (1997) argued that gains are benefits that inherently result from participation in a life domain and are the means by which one domain can benefit the other. Based on an extensive review of the literature, Carlson et al. (2006) developed a typology of gains that may accrue in any given life domain and include the following broad categories.: (1) developmental gains (i.e., new skills, knowledge, behaviors, values, or perspectives); (2) affective gains (i.e., positive alteration in moods, attitudes, or other aspects of emotions); (3) capital gains (i.e., economic, social, or health); and (4) efficiency gains (i.e., focus or attentiveness is induced by involvement in a life domain). While each of these types of gains is likely to result in individual enhancement within any given life domain, the intra-role acquisition of gains does not necessarily lead to inter-role cross benefits. In other words, these gains must spillover from the generating domain into the receiving domain, and then be successfully applied in the receiving domain in such a way that individual and/or system-level (family or work group, or any subunit thereof) functioning is increased.

Cross-domain transfer and use of gains in another domain is defined as work-family positive spillover, the first step in the inter-role process by which an individual's involvement in one domain may benefit the other (Wayne, 2009). Work-family positive spillover is bi-directional; that is, gains (developmental, capital, affective, and efficiency) realized in the family domain can be transferred to and used in the work domain, and vice versa. The construct of work-family positive spillover focuses on the cross-domain transfer rather than the impact of those gains. In other words, the cross-domain transfer and use of gains does not necessarily have positive impacts on the receiving domain (Wayne, 2009). In explanation, the impact of a

transferred gain on individual or system-level performance outcomes may depend on, for example, the extent to which the gain is congruent with the needs, norms, and values of the receiving domain and those within it (Greenhaus & Powell, 2006; Wayne, 2009).

Work-family positive spillover may lead to individual enrichment only if any one or more of those gains are *successfully* applied to the benefit of the focal employee in terms of greater role performance in the receiving domain (Wayne, 2009). Recent empirical research supports the proposition that work-to-family spillover is a necessary antecedent to work-to-family enrichment, and that enrichment is a more proximal variable than spillover to outcome variables (Masuda, McNall, Allen, & Nicklin, 2012).

At the individual level, work-family enrichment occurs when gains generated in one domain lead to increased role performance in another and, like work-family positive spillover, is bi-directional. In other words, if an individual perceives that his or her participation in one domain has had a positive effect on his or her performance in another, individual enrichment has occurred (Wayne, 2009). Greenhaus and Powell (2006) developed a theoretical framework for the study of work-family enrichment. They defined “work-family enrichment” as the process by which participation in one domain improves the quality of life, in terms of increased performance and positive affect, in the other domain. Accordingly to them, participation in either role may result in resource gains. They specifically define “resources” as “assets that may be drawn on when needed to solve a problem or cope with a challenging situation,” and include: (1) skills and perspectives (e.g., communication skills; respecting minority views); (2) psychological and physical resources (e.g. positive affect; physical fitness); (3) social-capital resources (e.g., work contacts; referral systems); (4) flexibility; and (5) material resources (e.g., income).

Specifically, Greenhaus and Powell (2006) proposed that resources generated in Role A (i.e., individual enhancement) lead to higher performance and positive affect in Role A. Resources generated in Role A also can directly (instrumental path) or indirectly (affective path) facilitate higher performance in Role B (i.e., work-family enrichment). Through the instrumental path, resources, such as money, knowledge, or skills, gained in Role A can be transferred and directly applied in such a way that higher performance is achieved in Role B. Through the affective path, positive affect in Role A can facilitate enhanced cognitive functioning, interpersonal interactions, and persistence in Role B, which should then lead to increased performance in Role B (see also Rothbard, 2001). The extent to which resources gained in Role A will benefit Role B depends on the salience of Role B, the perceived relevance of a particular resource to Role B, and the consistency of the resource with the requirements and norms of Role B. Conceivably, both pathways could lead to an increase in system-level functioning as well.

According to Figure 1, individual enhancement, work-family positive spillover, and work-family enrichment are each defined as individual-level constructs. Work-family facilitation, on the other hand, is a systems-level (i.e., work-unit or family-unit) construct. This work-family construct captures the effects of an individual's participation in one domain on the functioning of the other at the family- or work-unit level. Work-family facilitation can be best understood as a cross-level process whereby changes at the group or system level occur through individual action (Wayne, 2009).

Work-family facilitation is defined to exist when an individual accrues gains in one domain (individual enhancement) and then transfers (positive spillover) and applies them in another domain in such a way that the system (e.g., work or family unit) or subsystems thereof (e.g., parent-child or marital dyad) benefit. System level improvements are relatively enduring

changes in such things as family cohesion, work-unit productivity, or leader-member exchange (Wayne, 2009). As illustrated in Figure 1, work-family positive spillover can lead to work-family facilitation either directly or indirectly through work-family enrichment (Wayne, 2009).

Just as work-family conflict is the central construct on the negative side of the work-family interface, work-family enrichment is the central construct on the positive side of that interface (e.g., Greenhaus & Powell, 2006). That is, work-family enrichment is the basic mechanism by which work and family can positively influence one another. To date, research, both cross-sectional and longitudinal in design, suggests that work-family enrichment positively influences important organizational and employee outcomes. For example, work-family enrichment has been consistently related to greater job satisfaction, organizational commitment, and domain-specific satisfaction (e.g., Carlson et al., 2006; Hanson et al., 2006). More important to this study, this research further supports positive relationships between work-family enrichment and many health and wellbeing indicators, including sleep quality, general wellbeing, and depression (e.g., Williams, Franche, Ibrahim, Mustard, & Layton, 2006; Allis & O'Driscoll, 2008).

### **Current Study**

This study simultaneously investigated both sides of the work-family interface and within both domains. To do so, I focused on the means by which both negative and positive affective experiences in one domain can spillover and impact experiences in the alternative domain, namely work-family affective spillover (Greenhaus & Powell, 2006). Focusing exclusively on work-family affective spillover, this study investigated how both positive and negative domain-specific affective events influence an individual's state affect, exposure to affective events in the

alternative domain, and subjective health and wellbeing. This interplay of *both* positive and negative domain-specific experiences on health and wellbeing has been largely ignored by existing theoretical and empirical work. Some exceptions exist. For example, Demerouti, Peeters, and van der Heijden (2012) found that those who experienced both work-family conflict and enrichment reported better psychological wellbeing than those who experienced conflict alone. Boz, Martinez-Corts and Munduate (2009) further found that women who experienced both family-to-work conflict and enrichment experienced greater psychological and physical health and life satisfaction than those experiencing only enrichment.

Bono, Glomb, Shen, Kim, and Koch's (2013) work is particularly relevant to this study. Bono and colleagues examined how and to what extent both positive and negative discrete work events co-occur and influence employee stress, health, and wellbeing throughout the workday. To do so, they first integrated and extended three relatively independent theories that have been used to explain employee and organizational phenomenon often to the exclusion of the other two and include the broaden-and-build theory (Fredrickson, 1998, 2001), the job-demands-resources (JDR) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), and the conservation of resources (COR) model (Hobfoll, 1989). These authors proposed that, together, these three theories can explain how positive and negative events experienced in the work domain might work together to influence organizational and employee outcomes.

Rooted in positive psychology, the broaden-and-build theory proposes that positive emotions broaden an individual's momentary-thought-action repertoire, whereas negative emotions narrow it (Fredrickson, 2004). That is, positive emotions prompt exploration of new ways of interacting, thinking, and coping, which, overtime, build a wider array of personal resources that can be tapped to better deal with stressful circumstances (e.g., Fredrickson, 1998;



2001). For example, Schiffrin and Falkenstern (2012) found that positive affect was related to increased perceptions of social support, wellbeing, optimism, and resilience and decreased perceptions of stress and depression, while negative affect was related to the same but in the opposite directions.

The COR and JDR models similarly predict that when environmental demands threaten the maintenance or acquisition of resources, then employees will experience strain and eventually impaired wellbeing. On the other hand, when the environment provides us resources, then employees will experience reduced strain and improved wellbeing. Environmental demands are stressors that individuals face in the roles in which they participate. Those demands include any physical, psychological, social, or domain-specific (work or family) aspects that require sustained physical, cognitive, or emotional effort that result in physiological and psychological costs (Nahrgang, Morgeson, & Hofmann, 2011). Resources, on the other hand, are the physical, psychological, social, or domain-specific (work or family) aspects that facilitate goal achievement, reduce demands and their related physiological and psychological costs, and stimulate personal growth and development (Nahrgang et al., 2011). Lee and Ashforth's (1996) meta-analytic study found that a number of work demands were strongly related to affective strain in support of the COR theory. Similarly, Nahrgang et al.'s (2011) meta-analytic study found that job demands were related to poorer employee wellbeing and work engagement and increased burnout, while job resources were positively related to the same but in the opposite directions. Overall, both studies found support for both a health impairment process through environmental demands and a motivational process through the acquisition of resources.

The integration of the foregoing three theories suggests that exposure to positive events will facilitate the development of new ideas, additional resources (e.g., positive affect; social

support), and better coping strategies, all of which, in turn, can mitigate an individual's perceptions of and responses to environmental stressors. Based thereon, Bono et al. (2013) proposed that the relationship between positive and negative workplace events on employee outcomes is a dynamic and interactive process that also includes immediate reactions to stressful events that may accumulate over time and spillover across days. To test this proposition, these scholars employed a personal digital assistant (PDA) daily survey that signaled participants to respond twice in the morning and twice in the afternoon, each two hours apart. The PDA asked participants questions regarding positive and negative workplace events, including family-to-work conflict, and evening health complaints, stress, and work detachment. Their results indicated that positive work experiences directly related to less stress and stronger health perceptions in the moment and over a workday and to a heightened ability to detach from work in the evening. Additionally, employees reported lower stress levels when they experienced fewer negative but more positive work events. Finally, results indicated that positive morning events were related to less afternoon stress even when afternoon events and morning stress levels were controlled.

While Bono et al. (2013) certainly added to our understanding of how both positive and negative workplace events might co-occur and affect employee health and wellbeing in the moment and over a workday, they failed to explore how daily discreet events in both the work *and* family domains interact to impact exposure to affective events in the alternative domain and wellbeing. This research endeavored to further our understanding of how each domain (work and family) affects the other on a daily basis by filling in the foregoing gap in the literature.

## **Theoretical Frameworks and Hypotheses**

### **Affective Events Theory and Mood**

Affective events theory proposes that life events have immediate emotional reactions that facilitate changes in positive and negative affective states. Those affective states, in turn, influence attitudes and behaviors (Weiss & Cropanzano, 1996). One underlying theme of the work-family interface is that emotional reactions to domain-specific affective events may accumulate, spillover, and then affect an individual's affective state, experiences, and performance in the alternative domain (e.g., Greenhaus et al., 2006; Greenhaus & Powell, 2006; Heller & Watson, 2005). In this way, affective states are the linking pins between the two domains (e.g., Greenhaus et al., 2006; Heller & Watson, 2005). For example, Ilies, Schwind, Wagner, and Johnson (2007) found that subjective perceptions of workload influenced affect at work, which, in turn, influenced affect at home.

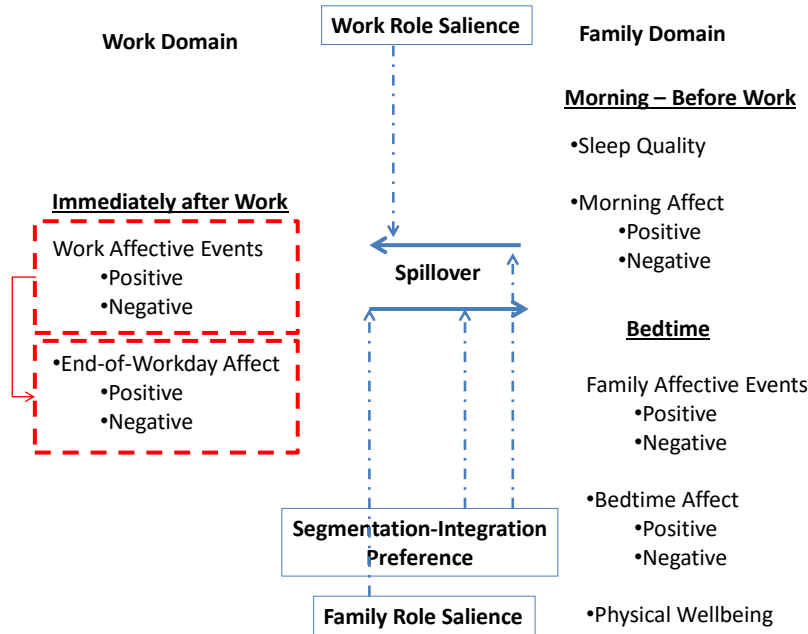
Affective events are defined as “things [that] happen to people in work [and family] settings” (Weiss & Cropanzano, 1996, p. 11) to which “people react emotionally.” The term “affect” captures a broad range of emotional states and dispositions. Dispositional or trait affect is a relatively stable personality trait that reflects an individual's predisposition to manifest a certain emotional reaction across time and situations. Conversely, transient or state affect describes how an individual feels at a given point in time (e.g., Tellegen, 1985; Watson & Clark, 1984). While dispositional affect certainly influences an individual's state affect, individuals with a given predisposition may still experience divergent affective states (Elfenbein, 2007; Frederickson, 2001).

State affect is conceptualized in terms of discrete emotions or moods. Emotions tend to be a reaction to specific experiences and are relatively short lived, whereas moods are more

global in nature and tend to last longer than discrete emotions (Barsade & Gibson, 2007). Put another way, state affect is a resulting accumulation of affective experiences and may be the key to understanding the relationship between work and family (Carlson, Grzywacz, Ferguson, Hunter, Clinch, & Arcury, 2011; Heller & Watson, 2005). Indeed, many studies have established a link between state affect and work and family outcomes, such as daily stress (Marco & Suls, 1993), work stressors (Jones & Fletcher, 1996), domain satisfaction (Fisher, 2000; Judge & Ilies, 2004; Heller & Watson, 2005), and work performance (Fisher, 2002). Based on affective events theory, I proposed the following hypotheses:

**Hypothesis 1.** The number of positive workplace events endorsed is: (a) positively related to end-of-the-workday positive state affect; and (b) negatively related to end-of-the-workday negative state affect (see Figure 2).

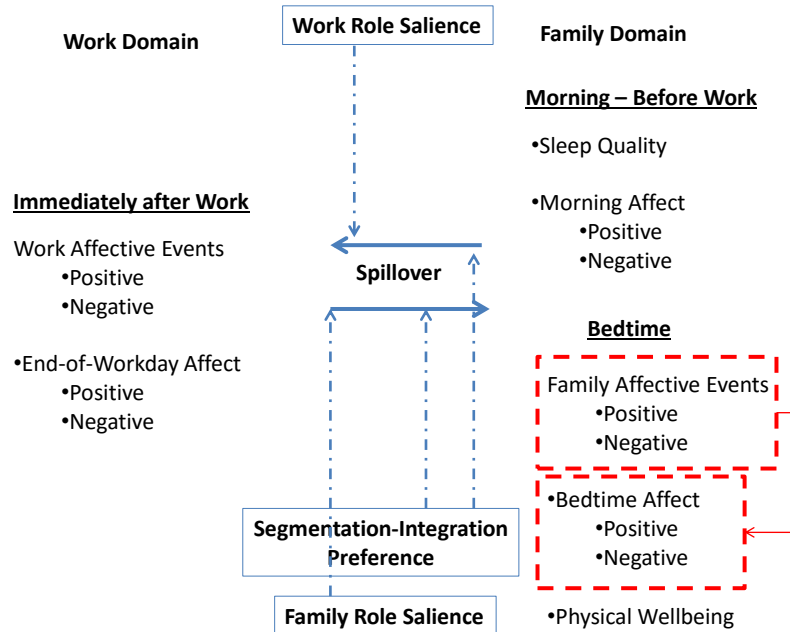
**Hypothesis 2.** The number of negative workplace events endorsed are: (a) positively related to end-of-the-workday negative state affect; and (b) negatively related to end-of-the-workday positive state affect (see Figure 2).



**Figure 2.** Visual representation of Hypotheses 1 and 2.

**Hypothesis 3.** The number of positive family-related events endorsed is: (a) positively related to positive state affect at bedtime; and (b) negatively related to negative state affect at bedtime (see Figure 3).

**Hypothesis 4.** The number of negative family-related events endorsed is: (a) positively related to negative state affect at bedtime; and (b) negatively related to positive state affect at bedtime (see Figure 3).



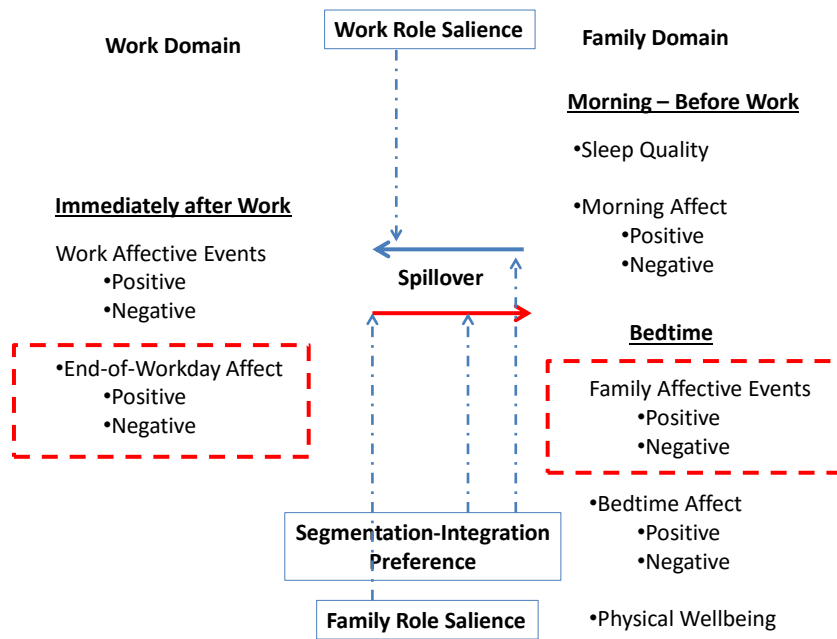
**Figure 3.** Visual representation of Hypotheses 3 and 4.

### **Mood-Congruent Cognitions and Affective Spillover**

Judge and Ilies (2004) offered mood-congruent cognitions as a dynamic reinforcement process to explain how affect generated in one domain can spillover and generate mood-congruent experiences in the other domain. Consistent with this theory, I expect positive or negative state affect generated in the family and work domains to spillover into the alternative domain and influence the number of valence-congruent affective events experienced therein (see also Cunningham, 1998, for suggestive evidence in support of mood-congruent cognitions). For example, I expect positive state affect at the end of the workday to spillover and decrease the number of negative affective events and increase the number of positive affective events endorsed by employees within the family domain. Thus, I proposed the following hypotheses:

**Hypothesis 5.** End-of-the-workday positive state affect is: (a) negatively related to the number of negative family-related events endorsed; and (b) positively related to the number of positive family-related events endorsed (see Figure 4).

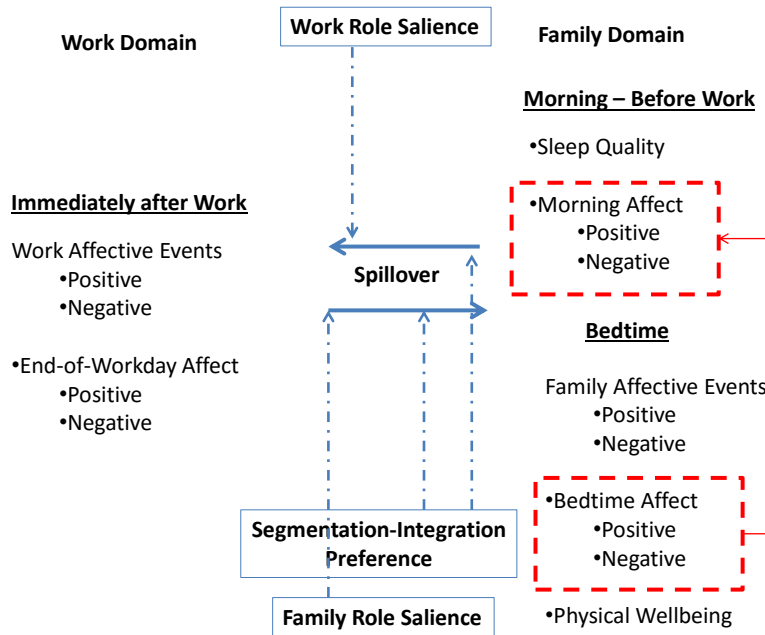
**Hypothesis 6.** End-of-the-workday negative state affect is: (a) positively related to the number of negative family-related events endorsed; and (b) negatively related to the number of positive family-related events endorsed (see Figure 4).



**Figure 4.** Visual representation of Hypotheses 5 and 6.

**Hypothesis 7.** Negative state affect at bedtime is: (a) positively related to negative state affect the next morning; and (b) negatively related to positive state affect the next morning (see Figure 5).

**Hypothesis 8.** Positive state affect at bedtime is: (a) negatively related to negative state affect the next morning; and (b) positively related to positive state affect the next morning (see Figure 5).

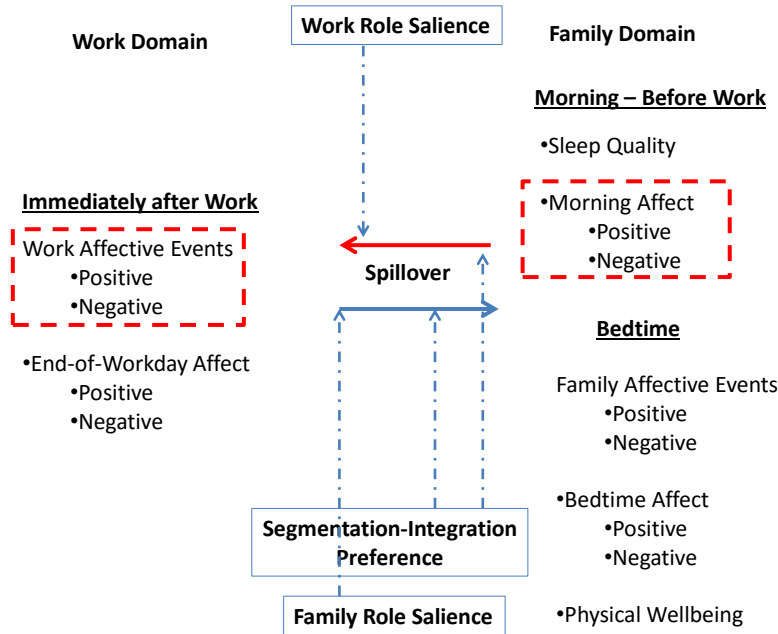


**Figure 5.** Visual representation of Hypotheses 7 and 8.

**Hypothesis 9.** Positive state affect in the morning is: (a) positively related to the number of positive workday events endorsed; and (b) negatively related to the number of negative workday events endorsed (see Figure 6).

**Hypothesis 10.** Negative state affect in the morning is: (a) positively related to the number of negative workday events endorsed; and (b) negatively related to the number of positive workday events endorsed (see Figure 6).





**Figure 6.** Visual representation of Hypotheses 9 and 10.

Research results are mixed on which affective states are most likely to spillover from one domain to another. For example, Hart (1999) failed to find a spillover effect between domains, while Ilies et al. (2007) did, although spillover of positive affect was much stronger than that of negative affect. In a daily diary study, Sonnentag and Binnewies (2013) found that while both positive and negative affect spilled over from work to home, no spillover of positive affect was observed the following morning. These authors surmised that their results suggest that spillover of negative affect is more far-reaching than that of spillover of positive affect, which seemingly contradicts the conclusions of Ilies et al. (2007). These mixed results may be a byproduct of the way affective states are operationalized in organizational research.

Scholars continue to debate the best way to conceptualize and measure affective states. Some argue that affect should be measured by discrete emotions (e.g., Elkman, 1992; Lazarus,

1991; Roseman, 2008), while others suggest that discrete emotions share underlying variance that can be explained by a simple dimensional structure (e.g., Watson, Clark, & Tellegen, 1998). In organizational research, the dimensional approach has taken precedence, with Watson et al.'s (1998) two-factor positive and negative affectivity model enjoying the most research attention (Barsade, Brief, & Spataro, 2003). Each of the two factors of this model comprise emotions that differ in valence (i.e., positive vs. negative) and activation (i.e., high vs. low). In explanation, high positive affect is associated with energy and positive engagement, while low positive affect is associated with sadness, melancholy, and lethargy. High negative affect, on the other hand, is associated with distressful and aversive mood states, while low negative affect represents calm and serene emotional states (Watson et al., 1988). As a direct result of mixed findings regarding spillover effects, scholars continue to call for more research that explores the spillover effects of discrete affective states (e.g., Judge et al., 2006; Sonnentag & Binnewies, 2013). Through such research, scholars may be able to identify which specific affective states spillover from work to home and vice versa and examine the strength of these specific affective states as compared to spillover effects of broader affective state dimensions. Consequently, I proposed the following research questions:

**Research Question 1.** Will the spillover effects of discrete state affect differ from the spillover effects of dimensional state affect?

**Research Question 2.** Will certain discrete affective states be more likely to spillover from one domain to the other?

## **Allostatic Load Model and Psychosomatic Health Outcomes**

According to Ganster and Rosen's (2013) allostatic load model, physiological reactivity might explain the underlying processes that link exposure to stressors to impaired human functioning. In that model, exposure to stressors first leads to psychological (e.g., fear, tension, anxiety), physiological (e.g., cortisol, epinephrine) and psychosomatic (e.g., sleep disturbances; headaches; fatigue) strain responses, all of which may, in time, lead to immune, cardiovascular, or metabolic detriments (secondary health outcomes; Ganster & Rosin, 2013). Such health detriments may then lead to tertiary health outcomes such as disease endpoints (CVD; diabetes), psychological disorders (e.g., clinical depression), and all-cause mortality. Thus, identifying ways to prevent or buffer against initial strain responses before they can lead to secondary and tertiary health outcomes is vitally important for occupational and personal health.

While resource-depleting negative events are an inevitable human experience, resource-building positive events may work to prevent, reduce, or buffer against strain responses to negative events (e.g., Bono et al., 2013). For example, Martinez-Corts et al. (2015) found that daily personal resources mitigated the daily negative spillover of interpersonal conflicts from work into the family domain. In further support, Demerouti and Geurts (2004) found that employees who simultaneously experienced both work-family conflict and enrichment reported better psychological wellbeing than employees who experienced conflict alone. Similarly, Boz et al. (2009) found that women who experienced both family-to-work conflict and enrichment had similar levels of psychological wellbeing and physical complaints as women who experienced only enrichment. Bono et al. (2013) also found support for the buffering effects of positive workplace events. While they found that negative workplace experiences can spillover on a daily basis into the family domain and increase psychosomatic complaints therein, they also found that

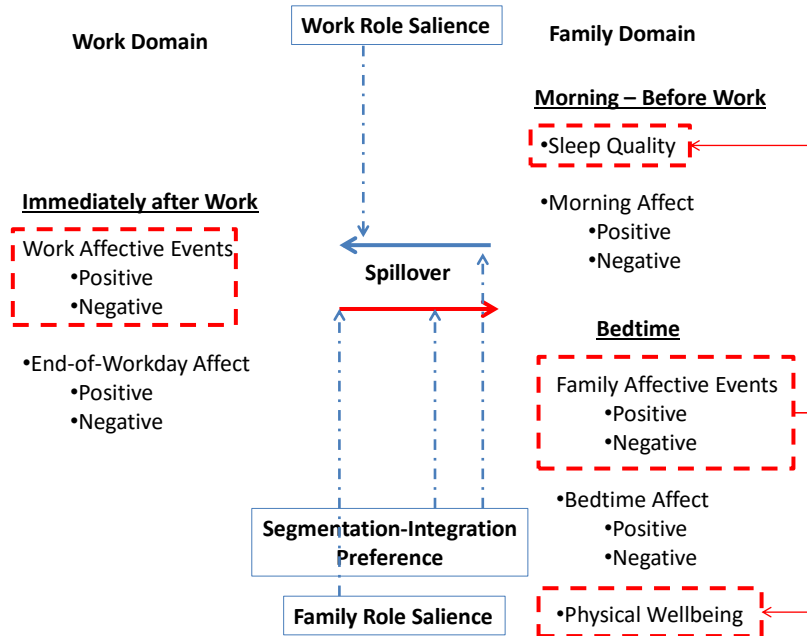
naturally occurring positive events worked to reduce those daily negative spillover effects. Based on these results, scholars suggest positive spillover from work to family buffers against negative emotional reactions to events that occur in the family domain and vice versa, while negative affect spillover may exacerbate them. (e.g., Grzywacz, Almeida, & McDonald, 2002).

Interestingly, however, Bono et al.'s study is only one of a few that have tested whether daily fluctuations in work stressors are related to psychosomatic complaints. None to my knowledge have tested whether daily fluctuations in resource-depleting negative events and resource-building positive events in *both* the family and work domains are differentially or interactively related to psychosomatic complaints. Thus, I proposed the following hypotheses:

**Hypothesis 11.** The number of negative events, both work- and family-related, endorsed is: (a) positively related to physical symptoms; and (b) negatively related to sleep quality (see Figure 7).

**Hypothesis 12.** The number of positive events, both work- and family-related, endorsed is: (a) negatively related to physical symptoms; and (b) positively related to sleep quality (see Figure 7).

**Hypothesis 13.** The number of positive events, both work- and family-related, endorsed will moderate the relationships between negative events and (a) physical symptoms; and (b) sleep quality (see Figure 7).



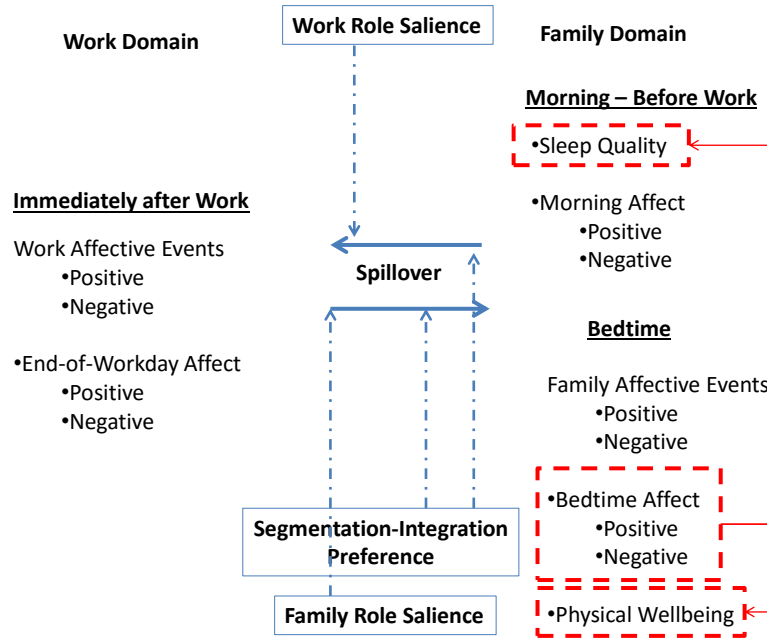
**Figure 7.** Visual representation of Hypotheses 11, 12, and 13.

Exposure to affective events might have a direct impact on health and wellbeing or an indirect one through affect. Research shows that affect is often accompanied by psychological, physiological, and psychosomatic changes (Greenhaus et al., 2006). For example, a longitudinal study of 195 young workers conducted by Lubbers, Loughlin, and Zweig (2005) showed that job-related affect mediated the relationship between interpersonal work conflict at time 1 and health at time 2. Utilizing a daily diary study, Lawson, Davis, McHale, Hammer, and Buxton (2014) found that a mother's positive mood after work not only decreased her negative mood at home but also increased her child's positive mood and sleep quality and duration. Two recent meta-analytic studies support these primary studies. First, Houben, van een Noortgate, and Kuppens (2015) demonstrated that both positive and negative affective states were related to psychological wellbeing, although negative affective states had a stronger impact. Second,

Denson, Spanovic, and Miller (2009) meta-analyzed 66 experimental studies and confirmed that discrete mood states impact immune reactivity to stress. Based thereon, I proposed the following hypotheses:

**Hypothesis 14.** Negative state affect at bedtime is: (a) positively related to physical symptoms; and (b) negatively related to sleep quality (see Figure 8).

**Hypothesis 15.** Positive state affect at bedtime is: (a) negatively related to physical symptoms; and (b) positively related to sleep quality (see Figure 8).



**Figure 8.** Visual representation of Hypotheses 14 and 15.

On a related note, some scholars argue that when relating affective states to outcomes, the discrete emotion approach may be superior to or at least worth investigating along with the dimensional approach. This argument rests on the notion that dimensional approaches result in a

loss of information because the distinctive qualities of each affective state in terms of antecedents, subjective experiences, and motivational properties are diminished. For example, in a meta-analytic study conducted by Shockley, Ispas, Rossi, and Levine (2012), results confirmed that while all of the included negative discrete affective states predicted counterproductive work behaviors (i.e., behavior counter to legitimate interests of an organization), only a select few of the positive (i.e., attentiveness and trait pride) ones did. In another meta-analytic study, Denson et al. (2009) found that while global mood was unrelated to physiological reactions (e.g., cortisol response; immune reactivity), exemplars (e.g., embarrassment; anticipation) from both dimensional categories were. As such, a dispositional approach to state affect may attenuate the relationships between it and important outcomes. Thus, I propose the following research question.

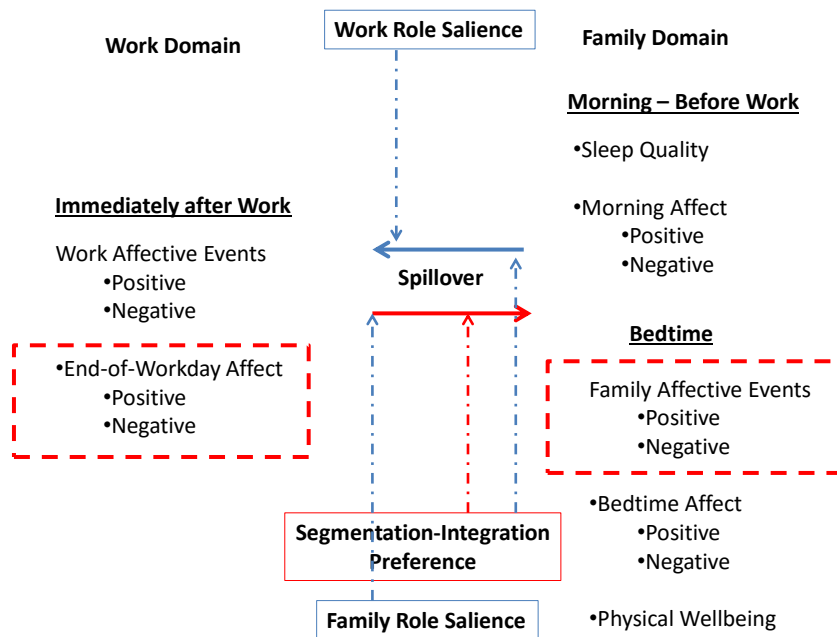
**Research Question 3.** Will certain discreet affective states at bedtime be more likely to influence physical wellbeing and sleep quality than others?

### **Boundary Theory and Domain Integration**

Individuals differ on the extent that they integrate their work and family domains (i.e., domain integration). According to boundary theory, people create and maintain boundaries around life domains to simplify and exact order in their lives (Ashforth, Kreiner, & Fugate, 2000). Boundaries vary in their permeability. For example, Bulger, Matthews, and Hoffman (2007) found that as boundary permeability increased so too did work-to-family enhancement. Employing a daily diary study, Ilies, Wilson, and Wagner (2009) also found that employees with highly integrated work and family roles exhibited stronger intra-individual spillover effects on positive and negative affect at home. Others, however, have found no support for the moderating

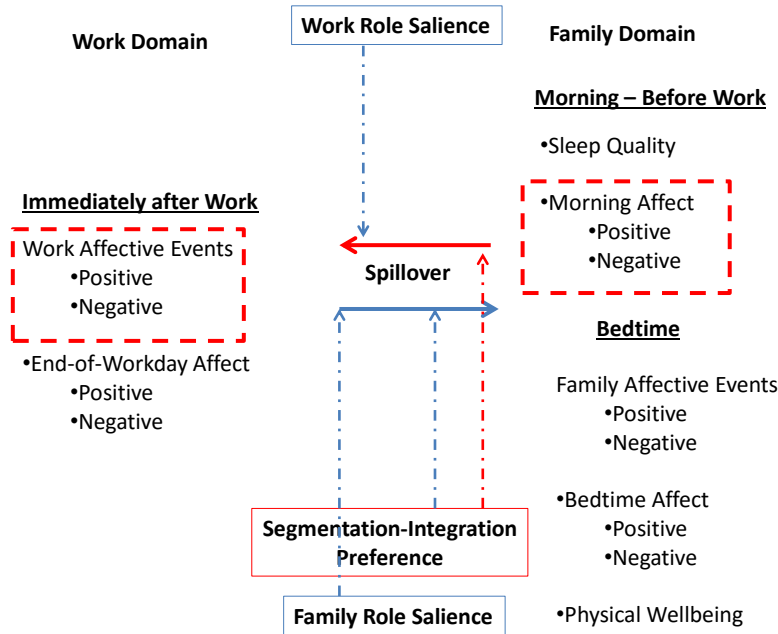
effects domain integration (e.g., Kreiner, 2006; Shockley & Allen, 2008). Because research of the moderating effects of domain integration is mixed, scholars continue to call for more work in this area (e.g., Powell & Greenhaus, 2006). Thus, I proposed the following hypotheses:

**Hypothesis 16.** Domain integration moderates the relationships between: (a) end-of-the-workday state affect and the number of valence-congruent family-related events endorsed (see Figure 9); (b) morning state affect and the number of valence-congruent work-related events endorsed, such that these relationships will be weaker for those who are lower in domain integration than those who are higher (see Figure 10).



**Figure 9.** Visual representation of Hypothesis 16(a).





**Figure 10.** Visual representation of Hypothesis 16(b).

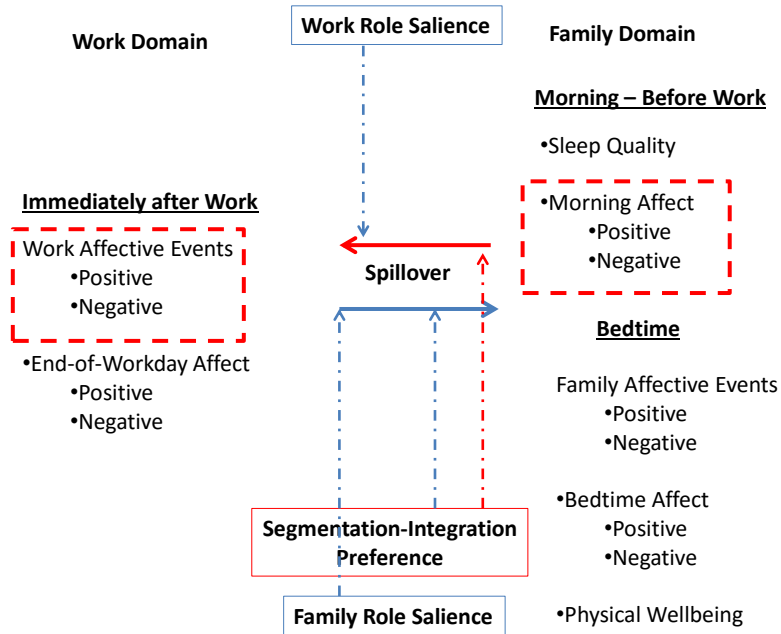
### Social Role Theory and Role Saliency

According to social role theory, our social roles form the basis of our social identities (Frone, Russell, & Cooper, 1995). These various self-identities are organized along a continuum of centrality; that is, we assign varying levels of importance, value, or saliency to each of those roles and corresponding identities (Thoits, 1992). The more salient a role, the more that corresponding social identity should influence psychological wellbeing (Thoits, 1992). For example, negative experiences within a highly salient role should generate more negative emotions and related wellbeing outcomes than a role that is less salient (e.g., Greenhaus et al., 2006).

Role saliency may affect the interplay between work and family domains and, more specifically, the level of spillover between the two. Exactly how role saliency affects that

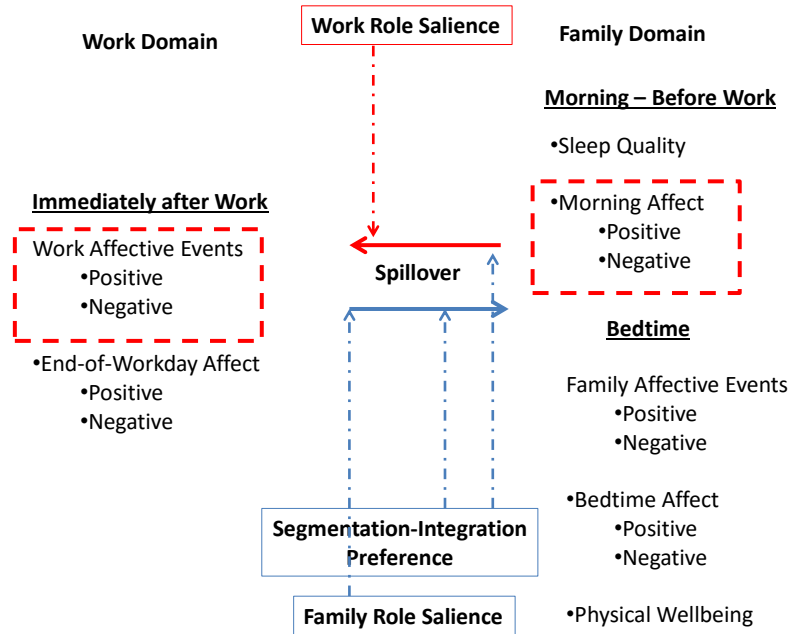
interplay, however, is not well known. For example, those with high work- or family-role salience may experience stronger negative effects when family interferes with work or work interferes with family, respectively, because of the importance they attach to that role. It might also be that those high in work- or family-role salience will compartmentalize negative affect and prevent spillover into the work or family domain, respectively, and thus buffer against the negative effects of one role on the other more important role. Alternatively, those high on work- or family-role salience may allow the negative effects of the more important role to spillover into the less important role, but not vice versa. Research to date on the moderating effects of role salience on spillover between work and family domains has been relatively rare and mixed. For example, Song, Foo, and Uy (2008) found that employees high in work orientation were more likely to bring home their negative affective experiences from work. Similarly, Wolfram and Gratton (2014) found a stronger link between negative spillover from home to work and lower life satisfaction for individuals reporting high family-role salience. On the other hand, Culbertson, Mills, and Fullagar (2012) did not find moderation evidence for work-role salience. As such, I hypothesized the following:

**Hypothesis 17.** Family-role salience moderates the relationship between end-of-workday negative state affect and the number of negative family-related events endorsed, such that the relationship will be weaker for those employees reporting high family-role salience (see Figure 11).



**Figure 11.** Visual representation of Hypotheses 17 and 19 (see below).

**Hypothesis 18.** Work-role salience moderates the relationship between morning state affect and the number of negative work-related events endorsed, such that the relationship will be weaker for those employees reporting higher work-role salience (see Figure 12).



**Figure 12.** Visual representation of Hypotheses 18 and 20.

Role salience might also influence the extent that positive affect spills over from one domain to the other. Greenhaus and Powell (2006) proposed that role salience moderates the relationship between positive affect generated in one role and performance in the other. They hypothesized that positive affect may promote an outward focus in one role that leads to positive interactions and psychological availability in the receiving role when the receiving role is highly salient to the individual. Hence, I hypothesized the following:

**Hypothesis 19.** Family-role salience moderates the relationship between end-of-work day positive state affect and the number of positive family-related events endorsed, such that the relationship will be stronger for those employees reporting high family-role salience (see Figure 11).

**Hypothesis 20.** Work-role salience moderates the relationship between morning positive state affect and the number of positive work-related events endorsed, such that the relationship will be stronger for those employees reporting high work-role salience (see Figure 12).

Through this dissertation study, I addressed a gap in the literature by including employees' daily affective experiences in the family domain, which tend to be ignored in the organizational literature. Failing to include these experiences may have contributed to mixed study results regarding the existence, relative strength, and employee health and wellbeing impacts of family-to-work and work-to-family daily affective spillover.

## CHAPTER TWO

### METHOD

Data were collected using daily diary methodology. The duration of the participants' involvement was 14 days, commencing on a Monday and ending on a Sunday. Participants completed an initial Time 1 survey and subsequent daily surveys (three times daily during the work week and once daily on the weekends) for 14 days. Additional procedural details are described below.

#### Participants

Participants were recruited through publicly available emails. At the outset, I targeted primarily administrative employees of the University of South Florida (USF) for recruitment purposes due to this population's high likelihood of computer access at the end of the workday. I thought convenient access to a computer at the end of the workday would increase compliance rates for the "immediately after work" diary session. Participants also were recruited with emails procured from publicly available professional licensee databases. Of the participants who completed the daily diary portion of this study, 28% were not USF employees. That 28% comprised the following occupations: paralegal, lawyer, dentist, massage therapist, speech pathologist, optician, and photographer.

The expected rate of attrition was 20% (Ohly, Sonnentag, Niessen, & Zapf, 2010). Thus, I originally proposed to recruit 100 participants with the expectation of achieving full data for 80

participants. This is in line with general recommendations outlined by Scherbaum and Ferreter (2009). In explanation, Scherbaum and Ferreter (2009) demonstrated that a Level 1 (number of days) sample size of  $N=10$  and a Level 2 (participants) sample size of  $N=35$  is sufficient to detect medium effect sizes for fixed effects. While my primary research interests remain on day level relationships, this study also sought to examine within- and cross-level interactions. Estimates of statistical power for detecting within- and cross-level interactions are more complex and no universally accepted formula exists for cases of complex multilevel models (Snijders, 2005). In general, however, complex multilevel models (such as this study) have less power than fixed effects. Ohly et al. (2010), however, recommends sample sizes approaching 150 for studies that seek to detect cross-level interactions. Therefore, I chose to increase my recruitment efforts to target 180 potential participants, with the expectation of achieving full data for no less than 140 participants.

All participants had to meet the following criteria:

- (1) fulltime employees who work no fewer than 36 hours per week;
- (2) scheduled to work a standard calendar week (e.g., Monday through Friday) for the duration of the survey administration;
- (3) scheduled to work the daytime shift for the duration of the survey administration;
- (4) living with a spouse or domestic partner;
- (5) fluent and literate in English; and
- (6) able and willing to fill out internet-based surveys.

I sent 4000 recruitment emails. One hundred and eighty-one people agreed to participate in this study. Of the 181 volunteers, 136 completed both the Time 1 surveys and the daily diary portion of this study. A review of the data indicates that the 45 who started but did not finish the

Time 1 survey failed to meet at least one of the foregoing inclusion criteria. An additional eight participants completed the daily diary portion only. Thus, this study had an overall sample size of 144. Based on the 136 participants who took the Time 1 survey (included demographics), the sample was largely female (76.5%) and had an average job tenure of 54 months ( $SD = .62$ ). The average age of the participants was 37.8 ( $SD = 10.2$ ), with a range from 23 to 65 years old. Approximately 51% of the sample had at least one child ( $M = 1.87$ ,  $SD = 1.0$ ) under the age of 18 living at home at least part time. Of the 136 participants, 55.9% worked between 36 and 40 hours per week, 39.7% worked between 41 and 50 hours per week, and 4.4% worked more than 51 hours per week. Finally, all 136 participants held at least a high school diploma, with 27.9% holding a bachelor's degree and 48.5% holding a master's degree or higher.

Upon completion of the Time 1 survey, participants received \$10 in the form of an Amazon gift card for their time. Upon completion of the daily diary portion of his study, participants received an additional \$40 in the form of an Amazon gift card for their time. Payment was not contingent upon completion or compliancy. The participant payment was made possible through a NIOSH Pilot Project Grant from the Sunshine Education and Research Center at the University of South Florida.

## **Procedures**

### **Informed Consent and Participant Training**

As participants were identified, they were scheduled for a live training session. Those who were unable to attend a live training session were instructed to view a training video prior to completing the Time 1 surveys. In either case, a unique study code was generated for each subject. Participants were instructed to input this code into the Time 1 survey and every diary



session thereafter to link data across sessions and maintain anonymity. In training (regardless of medium), the data collection procedures were described to the participants in great detail.

Participants were told how to use the online survey website (on which all surveys were administered) and received detailed instructions on taking the diary sessions at each of the three time points (i.e., morning, immediately after work, and at bedtime). At the close of the training session, subjects provided informed consent and completed the Time 1 surveys. For ease of future reference, participants also were provided a study information sheet that contained my contact information, the subject's unique study code, and a summary of the instructions provided in the training session.

### **Data Collection Procedures**

This study used a daily diary method. That is, measurements were taken three times a day on weekdays and once a day on weekends over the course of 14 days. On the day of the informed consent, participants filled out Time 1 scales (i.e., role salience; domain integration; dispositional affect; demographics) on the online data collection server (Qualtrics). Beginning on the first Sunday thereafter and for 14 consecutive days, participants filled out daily dairies. On each work day, participants filled out a short survey before starting their work shift, at the end of the workday, and at bedtime. On Saturdays, participants filled out a short survey in the morning and, on Sundays, participants filled out a short survey at bedtime. The morning survey inquired about the participants' present affective state and overnight sleep quality. The survey administered at the end of the workday assessed the number of discrete affective work events that each participant encountered, together with their present affective state. Finally, the bedtime survey assessed the number of discrete affective family events that each participant encountered, as well

as their present state affect and physical symptoms. The online survey host (Qualtrics) recorded the date and time that each participant took each daily diary in order to ensure compliance with study procedures (see Data Structure and Quality for more details). I sent automatically generated reminder emails to each participant at 7:30 am, 4:30 pm, and 9:30 pm during the weekdays, at 7:30 am on Saturdays, and at 9:30 pm on Sundays to encourage participant compliance in filling out the daily diaries.

## **Measures**

All of the data (Time 1 and daily diaries) were collected through Qualtrics, an online data collection server. Due to the demanding nature of the daily diary method and in line with previous research (e.g., Bono et al., 2013), constructs were measured with short scales in the daily diary portion. All study scale items are attached in Appendix A.

### **Demographics**

Demographic information was collected at Time 1 including gender, marriage status (married or living with a domestic partner), age in years, number and age of children, job tenure in months, hours worked per week, job title, and education level.

### **Role Salience**

Work salience is conceptualized as the psychological importance of work in an individual's life, which was assessed with three items from Lodahl and Kejner's (1965) job involvement scale with the word "work" substituted for "job." Involvement in work has been used to represent work salience in tests of social identity theory (e.g., Frone et al., 1995; Lobel &

St. Clair, 1992) because it reflects an individual's psychological engagement in work. Family salience was assessed with the same three items as the work salience scale but with the word "family" substituted for "work." (Greenhaus & Powell, 2003). Response options for both scales were on a 5-point scale from (1) strongly disagree to (5) strongly agree.

### **Domain Integration**

Work-family integration was measured using the Work-Family Integration-Blurring Scale (WFIBS; Desrochers, Hilton, & Larwood, 2005). It is a three-item scale (e.g., "It is often difficult to tell where my work life ends and my family life begins"). I adapted one item slightly; specifically "In my life, there is a clear boundary between my career and my role as a parent" was adapted to read "In my life, there is a clear boundary between my career and my family role" since it was assumed that not all participants would be parents. Participants were instructed to indicate their agreement with each item on a five-point scale from strongly disagree (1) to strongly agree (5).

### **Positive and Negative Affect**

To assess dispositional positive and negative affect, I used the General Dimensions Subscale of the PANAS-X (Watson & Clark, 1994). This scale consists of 10 emotions that correspond to negative affect (e.g., afraid, scared, nervous) and 10 emotions that correspond to positive affect (e.g., proud, strong, excited). Dispositional affect was assessed at Time 1 with the following prompt: "Please indicate the degree to which you feel each of the following emotions on average." Both scales had 5 response options ranging from 1 (*very slightly or not at all*) to 5 (*extremely*).

To assess positive and negative state affect (thrice daily), I used the PANAS short form developed by Mackinnon et al. (1999), for which these scholars generated evidence of validity and invariance across demographic variables. This scale consists of five emotions that correspond to negative affect (i.e., afraid, upset, nervous, scared and distressed) and five emotions that correspond to positive affect (i.e., inspired, alert, excited, enthusiastic, and determined). Each daily diary prompted the participant to indicate the extent that he or she was feeling each of the 10 emotions at the moment. When testing the dimensional approach to affect, scores were aggregated to represent the constructs of positive and negative affect. When testing the discrete emotion approach to affect, scores represented each individual emotion independent of the others. Both the dispositional and state affect scales had 5 response options ranging from 1 (*very slightly or not at all*) to 5 (*extremely*).

### **Sleep Quality**

Sleep quality was assessed with one adapted item scale taken from the Pittsburgh Sleep Quality Index (PSQI; Buysse, Reynolds, Monk, Berman, & Kupfer, 1989). The item was “During the past month, how would you rate your sleep quality overall?” which was adapted to ask “In reference to last night, how would you rate your sleep quality overall?” This item had 4 response options, from 1 (*very bad*) to 4 (*very good*).

### **Physical Symptoms**

Every night at bedtime, physical symptoms were assessed using Spector and Jex’s (1998) Physical Symptoms Inventory (PSI). One of the 13 items of the PSI was removed because it overlaps with the sleep quality measurement described above. The bedtime diary asked,

“Throughout the day, to what extent did you experience the following 12 symptoms?” Each of the foregoing items had 5 response options, from 1 (*not at all*) to 5 (*severely*).

### **Domain-Specific Affective Events**

In line with other event sampling studies (e.g., Bono et al., 2013), I developed an affective events inventory by relying on the definition of “affective events” and drawing upon the existing literature on domain-specific stressors and uplifts (see below for extensive details regarding the development of this inventory and evidence of its validity). This inventory consists of four subsets of events: (1) positive work-related affective events (4 items); (2) negative work-related affective events (5 items); (3) negative family-related affective events (7 items); and (4) positive family-related affective events (7 items)<sup>1</sup>. Each subset is broad enough to apply to many jobs and family situations (see Appendix A).

The end of the workday diary instructed participants to indicate (yes/no) whether they encountered any of the work-related events. The bedtime diary instructed participants to indicate (yes/no) whether they encountered any of the family-related events. The use of dichotomous items is common in event sampling studies because discrete events, such as those contained in this inventory, tend not to occur frequently during short time intervals (e.g., Bono et al., 2013). For example, Skarlicki, van Jaarsveld, and Walker (2008) provided evidence that most of the

---

<sup>1</sup> Inventory items used in this dissertation study varied slightly from its original development (see subsection titled “Development of the domain-specific affective events inventory.”) On the advice of my dissertation committee, I removed items that contained content that overlapped with the work-family conflict construct. Consequently, inventory items were as follows (see Table 1 for item content): (1) positive family-related affective events: items 1, 2, 3, 4, 6, 8, 9 (excluded item 5); (2) negative family-related affective events: items 1, 4, 5, 6, 7, 8, 10 (excluded item 11); (3) positive work-related affective events: items 1, 2, 3, 6 (excluded items 4 and 5; supplemented with item 2); (4) negative work-related events: items 5, 6, 7, 11, 14 (excluded items 1 and 16; supplemented with items 7 and 11). Finally, item 11 of the negative work-related events inventory was modified to say “someone at work was nasty, offensive, or rude to me” rather than “a coworker was nasty, offensive, or rude to me.”

variance in work events can be captured with dichotomous (yes/no) scale. Once data were collected, I summed the number of events endorsed to create the four subsets delineated above.

**Development of the domain-specific affective events inventory.** To develop the affective events inventory, I relied on the definition of “affective events” and drew upon the existing literature on domain-specific stressors and uplifts (e.g., Mignonac & Herrbach, 2004; Miner, Globm, & Hulin, 2005; Ohly & Schmitt, 2015; Seidlitz & Diener, 1993). Specifically, “affective events” are defined as “things [that] happen to people in work [and family] settings” (Weiss & Cropanzano, 1996, p. 11) to which “people react emotionally.” Based thereon, I generated a preliminary set of 22 family-related affective events and 23 work-related affective events intended to capture a broad array of work- and family-related affective events that are likely to occur on a daily basis. Each domain-specific item set contained both positive and negative event items.

The development of the domain-specific affective events inventory proceeded in two phases. In phase 1, I submitted the initial item pool to five graduate students and one faculty member in the industrial/organizational psychology program at the University of South Florida, all of whom served as my subject matter experts (SMEs) for a content validity review. Each SME was instructed to determine whether: (1) any item contaminated the content domain of domain-specific affective events; and (2) the initial item pool was construct deficient or redundant in any way. Based on this review, I revised and supplemented as necessary the items that I had initially developed to better capture domain-specific affective events that are likely to occur in the work and family domains on a daily basis. This process generated a total of 22 (6 positive and 16 negative) work-related affective event items and 24 (10 positive and 14 negative) family-related affective event items, all of which are contained in Table 1.

In phase 2, I administered the affective events inventory to a sample of working adults who were currently married or living with a domestic partner in order to: (1) select items for the affective events inventory; and (2) generate preliminary evidence of its predictive validity by examining its relationships with state affect and physical symptoms, the measurements of which are described above (see Measures above), with the following two exceptions. First, for physical symptoms, participants were instructed to indicate the extent that they experienced each of 13 symptoms (including the sleep disturbances item) “during the last 24 hours”, rather than “right now” as in the dissertation study. Second, while affective events will be measured at two points throughout the day (i.e., at end of workday and at bedtime) in the dissertation study, for purposes of this pilot study, participants were asked to indicate whether or not they encountered any of the affective events during the last 24 hours only. If an affective event was endorsed by a participant, that participant was then prompted to indicate the extent that they perceived that event as positive or negative on a 5 point scale, ranging from (1) very negative to (5) very positive.

For recruitment purposes, I contacted potential participants through publicly available email addresses obtained from professional license databases. If willing to participate, each recruit was instructed to proceed to the online survey administered through Qualtrics. A letter preceded entry into the survey measures that informed participants of the nature and content of the questionnaires, that participation was completely voluntary and anonymous, and that they must be currently employed and married or living with a domestic partner (IRB approval Pro#23148).

In total, this pilot study’s sample consisted of 449 healthcare professionals (e.g., psychologists, occupational therapists, nutritionists, and hearing aid specialists) who were currently married or living with a domestic partner. Of the 449 participants, 376 were female and

73 were male. The mean age of the participants was 45.8 years ( $SD = 12.4$ ), with a range from 24 to 82 years old. The mean job tenure of the participants was 9.2 years ( $SD = 9.4$ ), with a range of .10 to 42.4 years.

Once data were collected, I selected in items for the affective events inventory based on three criteria: (1) frequency of endorsement; (2) average positive and negative valence; and (3) inter-item correlations. As shown in Table 1, I selected five positive and five negative work-related affective event items, and eight positive and eight negative family-related affective event items. With two exceptions, these items represent the most frequently endorsed items. I selected out two frequently endorsed negative family-related affective event items (items 2 and 3; see Table 1) because they moderately correlated with another item. First, item 2 addressed exposure to unfair criticism by the participant's children. This item correlated .43 with item 4, which addressed exposure to nasty, offensive, or rude behavior by the participant's children. Second, item 1 addressed unfair criticism and item 3 addressed nasty, offensive, or rude behavior, both from the participant's spouse. These items correlated .47. While these moderate correlations do not necessarily reflect empirical redundancy, they do suggest that participants were unable to distinguish between the related items and may have endorsed both for the same event. I chose items 1 and 4 over items 3 and 2, respectively, because they were more frequently endorsed and reflect behavior more likely of the offender (e.g., spouse vs. children).

Of the remaining items, none of the correlations among the items exceeded .40 (most fell below .10), with two exceptions. Two sets of items correlated above .40, both of which are located in Table 1: (1) two positive work-related events ( $r = .48$ ; items 4 and 5); and (2) two positive family-related events ( $r = .41$ ; items 8 and 9). While not redundant in content, set (1) reflects a family-supportive work environment (i.e., my supervisor [coworker] was supportive



when I was dealing with personal/family matter during work hours). Set (2) items deal separately with emotional (item 8) and physical (item 9) intimacy between partners. While not redundant in content, one may lead to the other.

Once selected in, I created four separate inventories by adding the number of valence-congruent events endorsed: (1) negative work events; (2) positive work events; (3) negative family events; and (4) positive family events. As shown in Table 2, the correlations among the affective event inventories, state affect, and physical symptoms provide preliminary: (1) predictive validity for the newly developed inventories; and (2) support for the hypotheses proposed in this dissertation study. For example, negative work events were positively related to negative family events ( $r = .38$ ), physical symptoms ( $r = .33$ ), and negative state affect ( $r = .35$ ). Furthermore, positive work events were positively related to positive family events ( $r = .24$ ) and positive state affect ( $r = .20$ ), while positive family events were negatively related to negative family events ( $r = -.12$ ) and positively related to positive state affect ( $r = .29$ ). Finally, negatively family events were positively related to physical symptoms ( $r = .42$ ) and negative state affect ( $r = .54$ ), but negatively related to positive state affect ( $r = -.13$ ).

I then ran two regression analyses, both of which are summarized in Table 3. In the first analysis, I regressed physical symptoms on all four event inventories. The results of that analysis showed that negative work ( $\beta = 0.19, p < .01$ ) and family ( $\beta = 0.35, p < .01$ ) events explained significant variance in physical symptoms. Next, I separately regressed positive and negative state affect on all four affective event inventories simultaneously and found that both work ( $\beta = 0.14, p < .01$ ) and family ( $\beta = 0.24, p < .01$ ) positive events explained significant variance in positive state affect, while both work ( $\beta = 0.17, p < .01$ ) and family ( $\beta = 0.48, p < .01$ ) negative events explained significant variance in negative state affect. These results bolster confidence in

the predictive validity evidence demonstrated by the zero-order correlation coefficients contained in Table 2, as well as lend suggestive support to the hypotheses proposed in my dissertation.

### **Data Structure and Quality**

The data were structured such that daily diaries were nested within persons, creating two levels: the day level (level-1) and the person level (level-2). As previously described, the daily diary portion of this study ran for 14 consecutive days. On average, participants completed 13 days of data collection ( $SD = 1.16$ ), with a range of 7 to 14 days.

At level-1, data were comprised of three observation points per day: morning before work, immediately after work, and at bedtime. As described above, to qualify to participate in this study, subjects had to work a standard day shift, Monday through Friday, for the duration of the study period. While this study required a standard day shift, work start and finish times remained flexible. Therefore, compliancy was based on each participant's typical pattern of diary completion and was defined as follows:

1. Morning diaries must have been completed within 1.5 hours of the participant's average time of completion (indicated by the time stamp) of that diary across the study period, but no later than 11 am.
2. Immediately after work diaries must have been completed within 1.5 hours of the participant's average time of completion (indicated by the time stamp) across the study period, unless the participant indicated that he or she left work early or stayed late.
3. Slightly more flexible compliance criteria were applied to bedtime diaries because people go to bed at varying times. Nevertheless, bedtime diaries must have been

**Table 1.** Affective Events Inventory by Category.

Positive Work-Related Affective Events		M	SD	N	%
				Endorsed	Endorsed
<b>1. I received praise from a supervisor</b>		<b>4.49</b>	<b>0.705</b>	<b>102</b>	<b>22.7</b>
2. I received a pay raise, a promotion, or an improvement in benefits		3.16	1.118	11	2.4
<b>3. I was assigned a project or task I really wanted</b>		<b>4.00</b>	<b>0.961</b>	<b>43</b>	<b>9.6</b>
<b>4. My supervisor was supportive when I was dealing with a personal/family matter during work hours</b>		<b>4.42</b>	<b>0.798</b>	<b>86</b>	<b>19.2</b>
<b>5. My coworker was supportive when I was dealing with a personal/family matter during work hours</b>		<b>4.50</b>	<b>0.803</b>	<b>147</b>	<b>32.7</b>
<b>6. My colleagues and I had fun at work</b>		<b>4.55</b>	<b>0.651</b>	<b>239</b>	<b>65.3</b>
Negative Work-Related Affective Events		M	SD	N	%
				Endorsed	Endorsed
<b>1. Against my wishes, a personal/family matter interfered with work</b>		<b>2.46</b>	<b>0.903</b>	<b>62</b>	<b>13.8</b>
2. My pay or benefits were reduced or I was denied a promotions		2.86	1.320	7	1.6
3. I received a negative performance evaluation		3.55	1.099	1	0.2
4. I made a mistake that hurt my progress on an important project or task		3.00	1.038	12	2.7
<b>5. I could not complete an important task or project because of continual interruptions</b>		<b>2.18</b>	<b>0.821</b>	<b>104</b>	<b>23.2</b>
<b>6. Problems with work technology, tools, or equipment hurt my progress on an important project or task</b>		<b>1.90</b>	<b>0.804</b>	<b>122</b>	<b>27.2</b>
7. I received unfair criticism from a supervisor		2.64	1.319	17	3.8
8. I received unfair criticism from a coworker		2.84	1.214	15	3.3
9. My supervisor denied my request for me to deal with a personal/family matter during work hours		3.59	1.121	1	0.2
10. A supervisor was nasty, offensive, or rude to me		2.81	1.302	11	2.4
11. A coworker was nasty, offensive, or rude to me		2.77	1.190	20	4.5
12. I got into an argument or confrontation with a coworker		3.22	1.043	9	2.0
13. I got into an argument or confrontation with a supervisor		3.25	1.333	4	0.9
<b>14. I worked overtime against my wishes</b>		<b>2.60</b>	<b>0.955</b>	<b>36</b>	<b>8.0</b>
15. Against my wishes, I had to miss work because of a personal/family matter		2.78	1.013	25	5.6
<b>16. Against my wishes, I was late to work because of a personal/family matter</b>		<b>2.66</b>	<b>1.055</b>	<b>35</b>	<b>7.8</b>

**Table 1 (Continued)**

Positive Family-Related Affective Events	M	SD	N	%
			Endorsed	Endorsed
<b>1. I had fun with family or friends</b>	<b>4.67</b>	<b>0.570</b>	<b>374</b>	<b>83.3</b>
<b>2. I received praise from my spouse/domestic partner</b>	<b>4.61</b>	<b>0.632</b>	<b>239</b>	<b>66.4</b>
<b>3. I received praise from my children</b>	<b>4.67</b>	<b>0.667</b>	<b>153</b>	<b>34.1</b>
<b>4. I received good news about my personal/family health or finances</b>	<b>4.20</b>	<b>0.980</b>	<b>89</b>	<b>19.8</b>
<b>5. My spouse/domestic partner helped me resolve or feel better about a problem at work</b>	<b>4.38</b>	<b>0.725</b>	<b>130</b>	<b>29.0</b>
<b>6. My spouse/domestic partner was willing to take care of a family issue to make things easier on me</b>	<b>4.53</b>	<b>0.671</b>	<b>188</b>	<b>41.9</b>
7. I saw a family member do well at a sporting event or other performance (e.g., concert, play)	4.24	0.933	34	7.6
<b>8. I was emotionally intimate with my spouse/domestic partner</b>	<b>4.66</b>	<b>0.658</b>	<b>274</b>	<b>61.0</b>
<b>9. I was physically intimate with my spouse/domestic partner</b>	<b>4.42</b>	<b>0.919</b>	<b>150</b>	<b>33.4</b>
10. I received good news about my child's academic performance	4.13	0.939	33	7.3
Negative Family-Related Affective Events				
	M	SD	N	%
			Endorsed	Endorsed
<b>1. I received unfair criticism from my spouse/domestic partner</b>	<b>2.41</b>	<b>1.173</b>	<b>47</b>	<b>10.5</b>
2. I received unfair criticism from my children	2.57	1.186	29	6.5
3. My spouse/domestic partner was nasty, offensive, or rude to me	2.60	1.314	38	8.5
<b>4. My children were nasty, offensive, or rude to me</b>	<b>2.54</b>	<b>1.237</b>	<b>31</b>	<b>6.9</b>
<b>5. I received bad news about my personal/family health or finances</b>	<b>2.42</b>	<b>1.243</b>	<b>42</b>	<b>9.4</b>
<b>6. My spouse/domestic partner refused to discuss something important to with me</b>	<b>2.59</b>	<b>1.360</b>	<b>21</b>	<b>4.7</b>
<b>7. I had an argument or confrontation with my spouse/domestic partner</b>	<b>2.51</b>	<b>1.146</b>	<b>64</b>	<b>14.3</b>
<b>8. I had an argument or confrontation with my children</b>	<b>2.62</b>	<b>1.104</b>	<b>33</b>	<b>7.3</b>
9. I got into a fight or confrontation with a friend or extended family member	3.30	1.068	5	1.1
<b>10. I asked but did not receive help on household chores</b>	<b>2.50</b>	<b>1.088</b>	<b>59</b>	<b>13.1</b>
<b>11. Against my wishes, I had to miss a personal/family event because of work</b>	<b>2.94</b>	<b>1.248</b>	<b>14</b>	<b>3.1</b>
12. My spouse/domestic partner refused to be emotionally intimate with me	3.13	1.360	13	2.9
13. I received bad news about my child's academic performance	3.17	1.193	6	1.3
14. My spouse/domestic partner refused to be physically intimate with me	3.19	1.250	13	2.9

**Table 1 (Continued)**

Notes:

N = 449

Items selected into the affective event inventories as originally developed are in bold. See footnote 1 for modifications to the inventory for purposes of the dissertation study.

M = indicates the extent that participants who endorsed a specific affective event perceived it as negative or positive, on average. A rating of 3 is neutral, with values below 3 indicating negatively-valenced perceptions and values above 3 indicating positively-valenced perceptions.

N endorsed equals the number of participants within the sample to endorse a specific affective event.

% endorsed equals the percentage of the sample to endorse a specific item.

**Table 2.** Intercorrelations among the Pilot Study's Focal Variables.

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Children	-											
2. Age	-.26**	-										
3. Gender	.09	-.28**	-									
4. Job Tenure	-.16**	.62**	-.17**	-								
5. Hours Worked Per Week	-.11*	-.08	-.05	.03	-							
6. Negative Work Events	.14**	-.03	.10*	-.03	.17**	-						
7. Positive Work Events	.08	-.06	.12*	-.07	.10*	.11*	-					
8. Positive Family Events	.11*	-.02	-.00	.02	.01	.01	.24**	-				
9. Negative Family Events	.14**	-.06	.11*	-.06	.01	.38**	.04	-.12*	-			
10. Physical Symptoms	.02	-.08	.07	-.06	.07	.33**	.00	-.09	.42**	-		
11. Positive State Affect	-.08	.22**	-.09	.17**	.11*	-.08	.20**	.29**	-.13*	-.25**	-	
12. Negative State Affect	.05	-.03	.06	-.10*	-.02	.35**	-.05	-.09	.54**	.57**	-.21**	-

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Gender = 1 for male; 2 for female

Children = number of children

**Table 3.** Pilot Study's Regression Analyses.

	Physical Symptoms	State Affect	
		Negative	Positive
	$\beta$	$\beta$	$\beta$
Step 1			
Negative Work Events	0.19**	0.17**	-0.06
Positive Work Events	-0.02	-0.08	0.14**
Negative Family Events	0.35**	0.48**	-0.09
Positive Work Events	-0.03	-0.00	0.24**
R2	.21**	.32**	.11**

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

completed before 3 am on the morning following the day on which the entry should have been made and at least 4 hours before the morning diary was completed for the following day.

Additionally, each diary was required to be at least 1.5 hours apart from surrounding diary entries to meet compliancy, except for the bedtime diary, which must have been completed no fewer than 4 hours before the completion of the next morning's diary.

Based on the foregoing criteria, I deleted 31 morning entries, 143 afternoon entries, and 198 bedtime entries, all of which were excluded from data analysis. Sixty-seven of the 143 immediately after work entries were deleted because the participant indicated that they did not work that day. The remaining 76 were deleted for noncompliance. Following deletion of entries for noncompliance, 1579 morning observations were collected, 1206 immediately after work observations were collected, and 1394 bedtime observations were collected, resulting in compliance rates of 91.4%, 83.8%, and 80.7%, respectively.

## Data Analysis

To test the within-subjects hypotheses, hierarchical linear modeling was used (HLM; Baudenbush & Bryk, 2002). In this study, daily measurements (level-1 variables) were nested within individuals (level-2 variables). HLM controls for this data dependency. Unlike multiple regression, in HLM, within-subjects coefficients serve as the dependent variables for the between-subjects regression model. The within-subjects model provides an intercept and slope for the relationship of interest. These parameters, in turn, are used in the between-subjects model. HLM has other advantages as well. It (1) can control for previous measurements; (2) allows researchers to control for variables that may influence the outcome variable; and (3) allows for estimations of linear change between variables, even if data are incomplete. For convenience of review, a table containing all hypotheses and proposed direction of effects (i.e., within domain, work-to-family, and family-to work) is presented in Appendix B.

For this study, intra-class coefficients (ICC(1)s) were calculated for each Level-1 variable. ICC(1)s were calculated by dividing the proportion of between-person variance over the total variance (between + within person) as estimated by the unconditional models. With one exception, all ICC(1)s were greater than .29. Family negative events had an ICC of .09. Overall, there was enough between-person variation to use multi-level modeling.

In this study, random intercepts and slopes HLM models were used (random coefficient regression models for Hypotheses 1 through 15 and intercepts and slopes as outcomes model for Hypotheses 16 through 20). Each model assumes that both intercepts and slopes vary across persons.

Level-1 variables were entered group mean centered and Level-2 variables were entered grand mean centered. In each model, coefficients were modeled as randomly varying, with an error term entered for each Level-1 coefficient at Level-2.

### **Affective Spillover**

One of the main objectives of this study was to investigate the extent to which state affect at bedtime spilled over and impacted state affect the next morning (Hypotheses 7 and 8). To analyze these two hypotheses, I created two additional variables using methods outlined by Nezlek (2012): (1) positive state affect at bedtime (time n-1) for Hypothesis 8; and (2) negative state affect at bedtime (time n-1) for Hypothesis 7. For clarity purposes, I have provided the Level-1 Model for Hypothesis 7(a) below as an example:

#### Level-1 Model

$$MNA_n = \beta_{0j} + \beta_{1j}*(BNA_{n-1}) + r_{ij}$$

where  $MNA_n$  = Negative state affect measured in the morning  
 $BNA_{n-1}$  = Negative state affect measured the night before

### **Sleep Quality**

Sleep quality of the previous night was measured the next morning. Sleep quality was the dependent variable in Hypotheses 11(b), 12(b), 13(b), 14(b), and 15(b). To analyze those hypotheses, I created two additional variables: (1) negative events, both work- and family-related, (time n-1) for Hypotheses 11(b) and 13(b); and (2) positive events, both work- and family-related, (time n-1) for Hypotheses 12(b) and 13(b). See the Affective Spillover section immediately above regarding the creation of (1) positive state affect at bedtime (time n-1) for



Hypotheses 15(b); and (2) negative state affect at bedtime (time n-1) for Hypotheses 14(b). For clarity purposes, I provided the Level-1 Model for Hypothesis 11(b) below:

### Level-1 Model

$$\text{Sleep Quality}_n = \beta_{0j} + \beta_{1j} * (\text{NegE}_{n-1}) + r_{ij}$$

where Sleep Quality<sub>n</sub> = Sleep quality of the night before measured the morning after  
NegE<sub>n-1</sub> = All negative events endorsed, both work- and family-related, the day before

### **Control Variables**

**State affect.** As described above, positive and negative state affect were assessed at all three time points (i.e., morning, immediately after work, and at bedtime). Positive and negative work events were assessed immediately after work and positive and negative family events were assessed at bedtime. One of the main objectives of this study was to investigate how domain specific affective events in the work and family domains impact state affect within domains. These questions were addressed in Hypotheses 1 through 4. In each hypothesis, the dependent variable was state affect (either positive or negative) and the focal independent variable was domain-specific (work or family) affective (either positive or negative) events.<sup>2</sup> Hypotheses 1 and 2 sought to investigate the impact of workplace affective events on state affect immediately after work. When testing these two hypotheses, the morning measure of the dependent variable was entered as a control variable. Hypotheses 3 and 4 sought to investigate the impact of family affective events on state affect at bedtime. When testing these two hypotheses, the immediately

---

<sup>2</sup> The focal independent variable for Hypothesis 1 was positive work events and the dependent variable was state affect (either positive (1a) or negative (1b)) at the end of the workday. The focal independent variable for Hypothesis 2 was negative work events and the dependent variable was state affect (either negative (2a) or positive (2b)) at the end of the workday. The focal independent variable for Hypothesis 3 was positive family events and the dependent variable was state affect (either positive (3a) or negative 3(b)) at bedtime. The focal independent variable for Hypothesis 4 was negative family events and the dependent variable was state affect (either negative (4a) or positive (4b)) at bedtime.

after work dependent variable was entered as a control variable. In all four cases, this was done to parcel out variance associated with the individual's emotional and attitudinal state upon entering the particular domain. In this way, I hoped to isolate the effects of domain specific affective events on the dependent variable, specifically domain specific state affect. The foregoing analyses also were run without the control variable. In all cases, the results were similar. As an illustration, I have provided the Level-1, Level-2, and Mixed Model for Hypothesis 1(a) below:

#### Level-1 Model

$$WPA = \beta_{0j} + \beta_{1j}*(MPA) + \beta_{2j}*(WPE) + r_{ij}$$

where WPA = Positive state affect measured immediately after work

MPA = Positive state affect measured that morning

WPE = Positive workplace events measured immediately after work.

#### Level-2 Model

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \mu_{1j}$$

$$\beta_{2j} = \gamma_{20} + \mu_{2j}$$

#### Mixed Model

$$WPA = \gamma_{00} + \gamma_{10}*(MPA) + \gamma_{20}*(WPE) + \mu_{1j}*(MPA) + \mu_{2j}*(WPE) + \mu_{0j} + r_{ij}$$

**Dispositional affect.** State affect (either positive or negative) was the outcome variable in Hypotheses 1 through 4, 7, and 8. In each case, dispositional affect measured at Time 1 could impact both the intercept and slope. To explore this possibility, I first ran each analysis without the Level-2 control variable. Then, dispositional affect was entered both in the intercept and

slope in the Level-2 Model. As an illustration, I've provided the Level-1, Level-2, and Mixed Models for Hypothesis 1(b) below:

#### Level-1 Model

$$WNA = \beta_{0j} + \beta_{1j}*(MNA) + \beta_{2j}*(WPE) + r_{ij}$$

where WNA = Negative state affect measured immediately after work

MNA = Negative state affect measured that morning

WPE = Positive state workplace events measured immediately after work.

#### Level-2 Model

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(\text{Dispositional NA}) + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \mu_{1j}$$

$$\beta_{2j} = \gamma_{20} + \gamma_{21}*(\text{Dispositional NA}) + \mu_{2j}$$

where Dispositional NA = Dispositional negative affect measured at Time 1.

#### Mixed Model

$$WNA = \gamma_{00} + \gamma_{01}*(\text{Dispositional NA}) + \gamma_{10}*(MNA) + \gamma_{20}*(WPE) + \gamma_{21}*(\text{Dispositional NA} * WPE) + \mu_{1j}*(MPA) + \mu_{2j}*(WPE) + \mu_{0j} + r_{ij}$$

In testing each of Hypotheses 1 through 4, 7 and 8, (a) the focal coefficients (in this case  $\gamma_{20}$ ) were similar with and without dispositional affect entered into the Level-2 model; and (b) dispositional affect significantly impacted the intercept but not the slope. For example, in the model described immediately above,  $\gamma_{01}$  had a coefficient of .19 ( $\rho < .01$ ) and  $\gamma_{21}$  had a coefficient of -.03 ( $\rho > .05$ ). In explanation, those higher in dispositional negative affect reported higher negative state affect at the end of the workday. However, dispositional negative affect did not significantly impact the relationship between positive workplace events and negative state affect measured immediately after work. This trend was observed in each of Hypotheses 1 through 4, 7 and 8, without exception. Because this study's interest was the relationships

between the focal independent variables and the dependent variables, the impact of dispositional affect on the intercept is not further discussed for purposes of this dissertation.

### **Cross-Level Interactions**

Hypotheses 16 through 20 proposed that one Level-2 variable moderated a Level-1 relationship. In each case, the Level-2 moderator variable was expected to influence both the intercept and slope. Thus, the moderating variable was entered both in the intercept and slope of the Level-2 Model. As an illustration, I have provided the Level-1, Level-2, and Mixed Models for Hypothesis 17 below:

#### Level 1 Model

$$FNE = \beta_{0j} + \beta_{1j}*(WNA) + r_{ij}$$

where FNE = Number of negative family events measured at bedtime  
WNA = Negative state affect measured immediately after work.

#### Level-2 Model

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(FRS) + \mu_{0j}$$
$$\beta_{1j} = \gamma_{10} + \gamma_{11}*(FRS) + \mu_{1j}$$

where FRS = Family role salience measured at Time 1.

#### Mixed Model

$$FNE = \gamma_{00} + \gamma_{01}*(FRS) + \gamma_{10}*(WNA) + \gamma_{11}*(FRS*WNA) + \mu_{1j}*(WNA) + \mu_{0j} + r_{ij}$$

### **Within-Level Interactions**

Within-level interactions are more complex to set up than cross-level interactions, which are automatically created and tested by the HLM software. Hypothesis 13 proposed a within-

level interaction; specifically, it proposed that positive events, both work- and family-related, moderate the negative relationships between negative events, both work- and family-related, and (a) physical symptoms; and (b) sleep quality. To analyze this hypothesis, I first group-mean centered both positive events and negative events. To do so, for each person, I first calculated a mean daily response score for two variables: (1) positive events; and (2) negative events. I then calculated the difference between each day's score and the mean score for each person for both variables (difference scores). Finally, the difference scores for negative and positive events were multiplied for each person for each day (within-level interaction term). The within-level interaction term was entered uncentered into the Level-1 Model for Hypothesis 13. For example, I have provided the Level-1 Model for Hypothesis 13(a) below:

Level-1 Model

$$PSI = \beta_{0j} + \beta_{1j}*(PosE) + \beta_{2j}*(NegE) + \beta_{3j}*(POS*NEG) + r_{ij}$$

where PSI = Physical symptoms measured at bedtime

PosE = Positive affective events, both work- and family-related, aggregated throughout the day

NegE = Negative affective events, both work- and family-related, aggregated throughout the day

POS\*NEG = Within-level interaction term.

## CHAPTER THREE

### RESULTS

Descriptive statistics, intercorrelations, and internal consistency reliability estimates for Level-2 variables are provided in Table 4. Descriptive statistics, ICC(1)s, and internal consistency reliability estimates for Level-1 variables are provided in Table 5. To assess the internal consistency of Level-1 variables, I implemented the method recommended by Nezlek (2012). Within that method, scale items are nested within occasions and occasions are nested within persons, creating a three-level measurement model. The reliability of each Level-1 variable is the reliability of the Level-1 intercept. The frequency and mean proportion of days that each specific affective events inventory item was endorsed across the survey period (i.e., up to 14 days) are provided in Table 6. Finally, tables summarizing the results for each of the foregoing hypotheses are contained in Appendix C.

#### Hypotheses

Hypotheses 1 to 4 sought to investigate the effects of domain-specific affective events on domain-specific state affect. As previously discussed in the foregoing section, state affect measured in the immediately preceding domain was entered as a control variable in each analysis to isolate the effects of domain-specific affective events on domain-specific state affect. Results were in full support of Hypotheses 1 through 4. For Hypothesis 1, the number of workplace positive events endorsed were (a) positively related to end of workday positive state affect ( $\beta = 0.13, \rho < .01$ ); and (b) negatively related to workday negative state affect ( $\beta = -0.10, \rho <$

.01). For Hypothesis 2, the number of workplace negative events endorsed were (a) positively related to end of workday negative state affect ( $\beta = 0.11, \rho < .01$ ); and (b) negatively related to end of workday positive state affect ( $\beta = -0.07, \rho < .01$ ). For Hypothesis 3, the number of family positive events endorsed were (a) positively related to positive state affect at bedtime ( $\beta = 0.07, \rho < .01$ ); and (b) negatively related to negative state affect at bedtime ( $\beta = -0.04, \rho < .01$ ). For Hypothesis 4, the number of family negative events endorsed were positively related to negative state affect at bedtime ( $\beta = 0.11, \rho < .01$ ); and negatively related to positive state affect at bedtime ( $\beta = -0.06, \rho < .01$ ). These results are shown in Tables C1 through C8.

Hypothesis 5 proposed that end-of-workday positive state affect would be (a) negatively related to the number of negative family events endorsed and (b) positively related to the number of positive family events endorsed. Results partially supported this hypothesis. In explanation, end-of-workday positive state affect was not significantly related to the number of negative family events endorsed ( $\beta = -0.07, \rho > .05$ ) but was positively related to the number of positive family events endorsed ( $\beta = 0.20, \rho < .05$ ). These results are shown in Tables C9 and C10.

Hypothesis 6 proposed that end-of-workday negative state affect would be (a) positively related to the number of negative family events endorsed and (b) negatively related to the number of positive family events endorsed. Results partially supported this hypothesis. In explanation, end-of-workday negative state affect was positively related to the number of negative family events endorsed ( $\beta = 0.21, \rho < .01$ ) but not significantly related to the number of positive family events endorsed ( $\beta = 0.06, \rho > .05$ ). These results are shown in Tables C11 and C12.

**Table 4.** Descriptive Statistics for Time 1 Variables.

Variables	M	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11
1. Gender	-	-	-	-	(na)										
2. Age	37.86	10.18	23.00	65.00	.14	(na)									
3. Degree	-	-	-	-	.04	-.20*	(na)								
4. Tenure (months)	54.01	62.04	1.00	396.00	.07	.45**	-.19*	(na)							
5. Children (yes, no)	-	-	-	-	-.06	.04	.07	-.05	(na)						
6. Children: Number	1.87	1.00	1.00	7.00	.28*	-.01	.05	.18	.c	(na)					
7. Negative Affect	1.79	0.52	1.00	3.50	.07	.02	.08	.03	-.01	.07	(.86)				
8. Positive Affect	3.39	0.57	1.90	4.80	.02	-.09	.05	-.12	-.12	.03	-.23**	(.86)			
9. Work Role Salience	3.13	0.82	1.00	5.00	.04	-.08	.06	-.12	.03	-.12	-.02	.19*	(.77)		
10. Family Role Salience	4.43	0.67	2.00	5.00	-.17*	.06	-.01	.18*	-.35**	.13	-.04	0.16	-.22*	(.83)	
11. Role Integration	2.36	0.88	1.00	4.67	-.00	.07	-.12	.01	-.09	.06	.04	0.11	.39**	.07	(.77)

N = 136

Gender = 1 (female); 2 (male)

Children under 18 living within home at least part time = 1 (yes); 2(no)

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

c Cannot be computed because at least one of the variables is constant.



**Table 5.** Descriptive Statistics, Intra-Class Correlation Coefficients, and Internal Consistency Reliability Estimates for Level 1 Variables.

Variables	Mean	SD	ICC	R
Morning				
State Affect				
Positive	2.25	0.84	.51	.68
Negative	1.29	0.43	.37	.59
Sleep Quality	3.32	0.98	.29	--
Immediately After Work				
State Affect				
Positive	2.39	0.84	.51	.6
Negative	1.32	0.47	.32	.62
Workplace Negative Events	0.58	0.88	.42	--
Workplace Positive Events	1.01	0.92	.38	--
Bedtime				
State Affect				
Positive	1.85	0.76	.46	.71
Negative	1.27	0.44	.33	.63
Family Negative Events	0.45	0.87	.09	--
Family Positive Events	2.79	1.85	.44	--
Physical Symptoms	1.37	0.31	.40	--
Within Day - Both Domains				
Positive Events	3.61	2.28	.54	--
Negative Events	0.97	1.23	.34	--

Notes. Level-1 records range from 899 to 1494

ICC = Intra-class Correlation Coefficient

R = Internal Consistency Reliability Estimate

**Table 6.** The Frequency and Mean Proportion of Days an Affective Event Item was Endorsed.

Positive Work-Related Affective Events	Frequency	Mean
1. I received praise from a supervisor	346	.29
2. I was assigned a project or task I really wanted	166	.14
3. I received a pay raise, a promotion, or an improvement in benefits	35	.03
4. My colleagues and I had fun at work	660	.55
Negative Work-Related Affective Events	Frequency	Mean
1. I could not complete an important task or project because of continual interruptions	285	.24
2. Problems with work technology, tools, or equipment hurt my progress on an important project or task	189	.16
3. I received unfair criticism from a supervisor	36	.03
4. Someone was nasty, offensive, or rude to me	97	.08
5. I worked overtime against my wishes	88	.07
Positive Family-Related Affective Events	Frequency	Mean
1. I had fun with family or friends	902	.66
2. I received praise from my spouse/domestic partner	652	.48
3. I received praise from my children	356	.26
4. I received good news about my personal/family health or finances	193	.14
5. My spouse/domestic partner was willing to take care of a family issue to make things easier on me	708	.52
6. I was emotionally intimate with my spouse/domestic partner	694	.51
7. I was physically intimate with my spouse/domestic partner	294	.22
Negative Family-Related Affective Events	Frequency	Mean
1. I received unfair criticism from my spouse/domestic partner	119	.09
2. My children were nasty, offensive, or rude to me	45	.03
3. I received bad news about my personal/family health or finances	99	.07
4. My spouse/domestic partner refused to discuss something important to with me	51	.04
5. I had an argument or confrontation with my spouse/domestic partner	152	.11
6. I had an argument or confrontation with my children	77	.06

**Table 6 (Continued)**

Negative Family-Related Affective Events	Frequency	Mean
7. I asked but did not receive help on household chores	60	.04

*Notes:*

N = 144

Frequency = The number of times a specific affective events inventory item was endorsed throughout the survey administration period (i.e., up to 10 days for work-related items; up to 12 days for family-related items), summed across all participants.

Mean = The mean proportion of days that a specific affective events inventory item was endorsed. The mean was calculated via two steps: (1) dividing the number of times each participant endorsed a specific affective events inventory item over the number of days that the participant completed the corresponding survey (i.e., immediately after work for the work-related affective events (maximum of 10 days) and the bedtime survey for the family-related events (maximum of 12 days)) throughout the survey administration period ("participant mean"); and (2) taking the average of all participant means.

Hypotheses 7 and 8 concerned the extent to which state affect at bedtime spills over and impacts state affect the next morning. Results were in full support of both hypotheses. For Hypothesis 7, negative state affect at bedtime was (a) positively related to negative state affect the next morning ( $\beta = 0.25, \rho < .01$ ); and (b) negatively related to positive state affect the next morning ( $\beta = -0.20; \rho < .01$ ). For Hypothesis 8, positive state affect at bedtime was (a) negatively related to negative state affect the next morning ( $\beta = -0.06, \rho < .01$ ) and (b) positively related to positive state affect the next morning ( $\beta = 0.17, \rho < .01$ ). These results are shown in Tables C13 through C16.

Results did not support Hypotheses 9 and 10. For Hypothesis 9, morning positive state affect was not significantly related to the number of positive ( $\beta = 0.03, \rho > .05$ ) or negative ( $\beta = 0.00, \rho > .05$ ) workplace events endorsed. For Hypothesis 10, morning negative state affect was not significantly related to the number of negative ( $\beta = 0.00, \rho > .05$ ) or positive ( $\beta = -0.03, \rho > .05$ ) workplace events endorsed. These results are shown in Tables C17 through C20.

Results partially supported Hypothesis 11 in that negative events endorsed throughout the day and within both domains were (a) positively related to physical symptoms ( $\beta = 0.03, \rho < .01$ ) but (b) not significantly related to sleep quality ( $\beta = -0.02, \rho > .05$ ). Hypothesis 12 was not supported by the data in that positive events endorsed throughout the day and within both domains were not significantly related to physical symptoms or sleep quality. These results are shown in Tables C21 through C24.

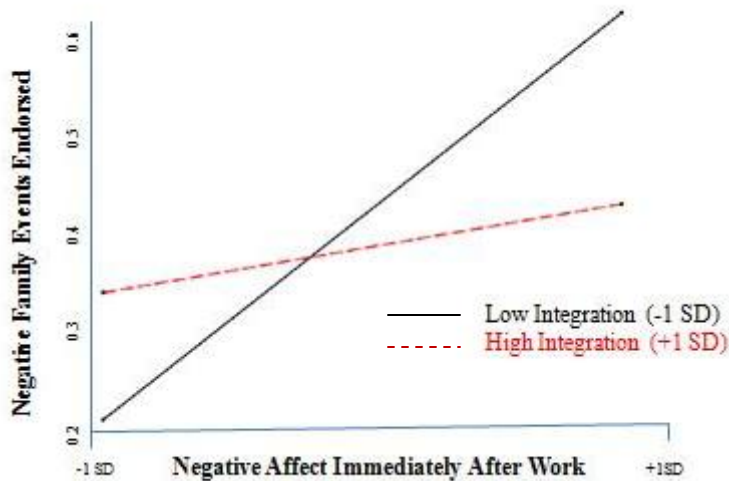
Hypothesis 13 proposed that all positive events throughout the day and within both domains would moderate the relationship between negative events and (a) physical symptoms; and (b) sleep quality. Hypothesis 13 was not supported by the data. These results are shown in Tables C25 and C26.

Results fully supported Hypothesis 14 in that negative state affect at bedtime was (a) positively related to physical symptoms ( $\beta = 0.11, \rho < .01$ ) reported at bedtime and (b) negatively related to sleep quality ( $\beta = -0.15, \rho < .05$ ) reported the following morning. Results partially supported Hypothesis 15 in that positive state affect at bedtime was (a) negatively related to physical symptoms ( $\beta = 0.07, \rho < .01$ ) reported at bedtime but (b) not significantly related to sleep quality ( $\beta = -0.05, \rho > .05$ ) reported the next morning. These results are shown in Tables C27 through C30.

Hypothesis 16 proposed that the extent to which a person integrates his or her family and work domains (i.e., domain integration) moderates the relationship between (a) end-of-workday state affect and the number of valence-congruent family-related events endorsed, and (b) morning state affect and the number of valence-congruent work-related events endorsed. Results partially supported this hypothesis. Results indicated that the extent to which a person integrates his or her family and work domains did not moderate the relationship between (1) end-of-workday positive state affect and the number of positive family events endorsed ( $\beta = -0.03, \rho > .05$ ); (2) morning positive state affect and the number of positive workplace events endorsed ( $\beta = 0.04, \rho > .05$ ); or (3) morning negative state affect and the number of negative workday events endorsed ( $\beta = 0.05, \rho > .05$ ). However, the extent to which a person integrates his or her family and work domains did moderate ( $\beta = -0.29, \rho < .05$ ) the relationship between end-of-workday negative state affect and the number of negative family events endorsed, which is interpreted below. These results are shown in Tables C31 through C34.

The positive relationship between end-of-workday negative state affect and the number of negative family events endorsed was expected to be weaker for those who were lower in domain integration than those who were higher. An analysis and interpretation of the simple

slopes, however, suggested the opposite. To probe the interaction and simple slope effects, I used methods developed by Preacher, Curran, and Bauer (2006) to calculate simple intercepts, simple slopes, and regions of significance in HLM 2-way interactions. To visually represent the interactions, I also selected conditional values for both the moderator and independent variables (see Figure 13). I followed Preacher et al.'s (2006) recommendation to select conditional values of one standard deviation above and below the mean for both variables. As illustrated in Table C32 and Figure 13, negative state affect reported immediately after work was positively related to the number of negative family events endorsed among those who reported lower levels of domain integration ( $\gamma = .42, t = 3.15, \rho < .01$ ), but not among those who reported higher levels of domain integration ( $\gamma = .09, t = .79, \rho > .05$ ).



**Figure 13.** Interaction between negative state affect immediately after work and domain integration on the number of negative family events endorsed.

Hypothesis 17 proposed that family-role salience would moderate the relationship between end-of-workday negative state affect and the number of negative family events endorsed. This hypothesis was not supported by the data. Hypothesis 18 proposed that work-role

saliency would moderate the relationship between morning negative state affect and the number of negative workplace events endorsed. This hypothesis was not supported by the data.

Hypothesis 19 proposed that family-role saliency would moderate the relationship between end-of-workday positive state affect and the number of positive family-related events endorsed. This hypothesis was not supported by the data. Hypothesis 20 proposed that work-role saliency would moderate the relationship between morning positive state affect and the number of positive work-related events endorsed. This hypothesis was not supported by the data. These results are shown in Tables C35 through C38.

### **Research Questions**

In addition to the foregoing hypotheses tests, this study tested three research questions. Research Question 1 asked whether the spillover effects of discrete state affect would differ from the spillover effects of dimensional state affect. Research Question 2 asked whether certain discrete affective states would be more likely to spillover from one domain to the other. Research Question 3 asked whether discrete bedtime state affect would have different relationships with physical wellbeing and sleep quality than dimensional state affect.

For clarity purposes, each of the two dimensions of state affect consists of 5 discrete affective states or indicators. Negative state affect includes the following discrete affective states: afraid, scared, nervous, upset, and distressed. Positive state affect includes the following discrete affective states: alert, determined, enthusiastic, excited, and inspired. Dimensional state affect was a Level-1 predictor in the following hypotheses: 5, 6, 7, 8, 9, 10, 14, and 15. To explore these research questions, for each of the foregoing hypotheses, I entered into the Level-1 model all 5 of the measure-specific (i.e., morning, immediately after work, or bedtime) discrete

affective states for the appropriate dimension of state affect (i.e., either positive or negative depending on the hypothesis). None of the discrete affective states were significant predictors of the dependent variable for the following hypotheses: (1) Hypothesis 5; (2) Hypothesis 6(b); (3) Hypothesis 9; (4) Hypothesis 10(b); and (5) Hypothesis 14(b). Results for each of the remaining hypotheses are described below and indicate that at least one discrete affective state was a significant predictor of the relevant dependent variable.

### **Hypothesis 6a**

As shown in Table C11, negative state affect immediately after work significantly predicted the number of negative family events endorsed at bedtime ( $\beta = 0.21, \rho < .01$ ). Of the 5 discrete negative affective states reported immediately after work, feeling scared at bedtime ( $\beta = 0.20, \rho < .05$ ) was the only significant predictor of the number of negative family events endorsed at bedtime.

### **Hypothesis 7**

As shown in Tables C13 and C14, negative state affect at bedtime significantly predicted negative ( $\beta = 0.25, \rho < .01$ ) and positive ( $\beta = -0.20, \rho < .01$ ) state affect the next morning. Of the five negative affective states reported at bedtime, feeling scared ( $\beta = 0.11, \rho < .05$ ), nervous ( $\beta = 0.08, \rho < .01$ ), upset ( $\beta = 0.06, \rho < .01$ ), and distressed ( $\beta = 0.06, \rho < .01$ ) at bedtime significantly predicted negative state affect the next morning (Hypothesis 7a), and feeling distressed ( $\beta = -0.09, \rho < .05$ ) at bedtime significantly predicted positive state affect the next morning (Hypothesis 7b).



### **Hypothesis 8**

As shown in Tables C15 and C16, positive state affect at bedtime significantly predicted negative ( $\beta = -0.06, \rho < .01$ ) and positive ( $\beta = 0.17, \rho < .01$ ) state affect the next morning. Of the five positive affective states reported at bedtime, feeling enthusiastic ( $\beta = -0.04, \rho < .05$ ) and excited ( $\beta = -0.05, \rho < .05$ ) at bedtime significantly predicted negative state affect the next morning (Hypothesis 8a), and feeling excited at bedtime ( $\beta = 0.07, \rho < .05$ ) significantly predicted positive state affect the next morning (Hypothesis 8b).

### **Hypothesis 10a**

As shown in Table C19, negative state affect in the morning was not a significant predictor of the number of negative work events endorsed immediately after work ( $\beta = 0.00, \rho > .05$ ). Of the 5 discrete negative affective states reported in the morning, however, feeling upset in the morning ( $\beta = 0.11, \rho < .05$ ) significantly predicted the number of negative workplace events endorsed at the end of the workday.

### **Hypothesis 14a**

A shown in Tables C27, negative state affect at bedtime was a significant predictor of physical symptoms ( $\beta = 0.11, \rho < .01$ ). Of the five discrete negative affective states reported at bedtime, feeling upset at bedtime ( $\beta = 0.08, \rho < .01$ ) significantly predicted physical symptoms.

### **Hypothesis 15**

As shown in Tables C29 and C30, positive state affect at bedtime significantly predicted physical symptom ( $\beta = 0.07, \rho < .01$ ) but not sleep quality ( $\beta = 0.08, \rho > .05$ ). Of the five discrete positive affective states reported at bedtime, feeling alert at bedtime ( $\beta = -0.02, \rho < .05$ ) significantly predicted physical symptoms, and feeling excited at bedtime significantly predicted sleep ( $\beta = 0.12, \rho < .01$ ).

## CHAPTER FOUR

### DISCUSSION

This study sought to explore how domain-specific (work or family) affective events influence employees' within-domain state affect and how that within-domain state affect might spillover and affect employees' experiences in the alternative domain, health, and wellbeing. Overall, the results of this study suggested that both positive and negative domain-specific affective events do influence an employee's within-domain state affect, and that affect, in turn, influences experiences in the alternative domain as well as employee health and wellbeing, namely physical symptoms and sleep quality. The specific results and core findings of this study will be discussed in terms of (1) within-domain effects; (2) spillover effects; (3) moderating effects; (4) health impacts; (5) theoretical implications; (6) practical implications; (7) limitations and future directions; and (8) conclusions.

#### **Within Domain Effects**

Hypotheses 1 and 2 investigated the extent to which affective events within the workplace influenced state affect at the end of the workday. Results supported both of these hypotheses without exception. Positive workplace affective events were positively related to positive state affect and negatively related to negative state affect at the end of the work day. Negative workplace affective events were positively related to negative state affect and negatively related to positive state affect at the end of the workday.

Hypotheses 3 and 4 investigated the extent to which affective events within the family domain influenced state affect at bedtime. Again, results supported both of these hypotheses without exception. Positive family affective events were positively related to positive state affect and negatively related to negative state affect at bedtime. Negative family affective events were positively related to negative state affect and negatively related to positive state affect at bedtime.

In each of the foregoing hypotheses, state affect measured in the immediately preceding domain was entered into the Level-1 model to help isolate the effects of domain-specific affective events on within-domain state affect. Doing so allows an inference that the foregoing results are consistent with the affective events theory, which proposes that life events have immediate emotional reactions that facilitate changes in positive and negative affective states (Weiss & Cropanzano, 1996). The results of this study support the contention that state affect is a resulting accumulation of affective experiences and may be the key to understanding the relationship between work and family to which I now turn.

### **Spillover Effects**

Hypotheses 5 and 6 investigated the extent that state affect at the end of the workday influences the number of valence-congruent affective events endorsed by the employee within the family domain. The results of this study partially supported these hypothesized spillover effects. As expected, positive state affect at the end of the work day was positively related to the number of positive affective events endorsed by the employee within the family domain. Also as expected, negative state affect at the end of the workday positively influenced the number of negative affective events endorsed by the employee within the family domain. Contrary to

expectations, (1) positive state affect at the end of the workday was not significantly related to the number of negative family-related affective events endorsed by the employee; and (2) negative state affect at the end of the workday was not significantly related to the number of positive family-related affective events endorsed by the employee.

Hypotheses 7 and 8 investigated the extent that state affect at bedtime influenced state affect the next morning. The results of these hypotheses supported both of these spillover hypotheses, without exception. Negative state affect at bedtime was positively related to negative state affect and negatively related to positive state affect the next morning. Similarly, positive state affect at bedtime was negatively related to negative state affect and positively related to positive state affect the next morning.

Hypotheses 9 and 10 investigated the extent to which morning state affect influenced the number of valence-congruent affective events endorsed by employees in the work domain. Neither hypothesis was supported by the results of this study. However, as part of an exploratory analysis (Research Questions 1 and 2), I also investigated whether discrete affective states were more likely than dimensional state affect to influence employees' affective experiences in the work domain. None of the morning discrete positive affective states were significantly related to the number of positive workplace affective events endorsed by the employees. Likewise, none of the morning discrete negative affective states significantly predicted the number of positive workplace affective events endorsed by the employees. However, feeling upset in the morning was positively related to the number of negative affective events endorsed by the employees in the work domain.

Overall, these results are consistent with mood-congruent cognitions theory, which proposes that affect generated in one domain spills over and generates mood-congruent

experiences in the alternative domain (Judge and Ilies, 2004). Drawing upon this theory, I expected that positive and negative state affect generated in the family and work domains would influence the number of valence-congruent affective events experienced in the alternative domain. This was especially evident in Hypotheses 7 and 8, the results of which suggested that both positive and negative state affect generated in the work domain positively influenced the number of valence-congruent affective events endorsed in the family domain but did not influence the number of valence-incongruent affective events. Results in support of mood-congruent spillover from family (i.e., morning measure) to work were not as strong. Feeling upset in the morning was the only discrete affective state that positively influenced the number of valence-congruent events endorsed in the work domain. I believe that there are two related explanations for this: (1) control over events within the work domain; and (2) the strength of the situation in the work domain. An individual may have more autonomy to choose the type of affective events he or she will encounter within the family domain than in the work domain. For example, if an employee is feeling particularly positive at the end of the workday, he or she may leverage that affect and choose to engage in positive family-related affective events, such as having fun with family or friends or being emotionally or physically intimate with his or her spouse (i.e., family-related positive affective event items included in this study; see Table 1). The work domain, on the other hand, may be highly regulated by (1) situational influences, such as norms and cultural expectations, that restrict individual behaviors, and (1) highly prescribed time- and performance-oriented affective events, such as raises, promotions, and task assignments. So, even if an individual is feeling particularly positive before leaving for work in the morning, he or she may not have the luxury to leverage this affect and choose the types of affective workplace events he or she will experience, such as having fun with colleagues or

receiving a pay raise, promotion, or favorable task assignment (i.e., work-related positive affective event items included in this study; see Table 1).

### **Moderating Effects**

Hypothesis 16 proposed that the extent to which an employee integrates his or her family and work domains (i.e., domain integration) would moderate the relationship between state affect generated in one domain and the number of valence-congruent affective events endorsed within the alternative domain, such that these relationships would be stronger for those who were higher in domain integration than those lower in domain integration. Hypothesis 16 consisted of four sub-hypotheses. Results supported the moderating effect of domain integration for only one of the four sub-hypotheses. Domain integration did not moderate the relationship between: (1) positive state affect at the end of the workday and family-related positive affective events; (2) positive state affect in the morning and work-related positive affective events; and (3) negative state affect in the morning and work-related negative affective events. Domain integration did moderate the positive relationship between negative state affect at the end of the workday and the number of negative affective events endorsed within the family domain. Contrary to expectations, this positive relationship remained for those low in domain integration but not for those high in domain integration. In other words, negative affect at the end of the workday positively influenced the number of valence-congruent affective events endorsed within the family domain only for those who were lower in domain integration. Theoretically, this result is surprising. Based on boundary theory, boundaries that we create around our life domains vary in permeability and the more permeable the boundary, the more likely affect will spillover from one domain to the other and influence experiences therein (e.g., Ashforth et al., 2000). Despite the

common sense logic of this theory, research on the moderating effects of boundary integration remains mixed (e.g., Bulger et al., 2007; Ilies et al., 2009). For a more thorough discussion on this point, please see the section on Theoretical Implications below.

Hypothesis 17 proposed that family-role salience would moderate the relationship between end-of-workday negative state affect and the number of negative family-related affective events endorsed, such that this relationship would be weaker for those employees reporting high family-role salience. Similarly, Hypothesis 18 proposed that work-role salience would moderate the relationship between morning negative state affect and the number of negative work-related affective events endorsed, such that this relationship would be weaker for those employees reporting high work-role salience. The theoretical idea underlying these two hypotheses is that those high in work- or family-role salience will compartmentalize negative affect and prevent spillover into the work or family domain, respectively, and thus buffer against the negative effects of one role on the other more important role. The results of this study did not support this theoretical argument. For a more thorough discussion on this point, please see the section on Theoretical Implications below.

Hypothesis 19 proposed that family-role salience would moderate the relationship between end-of-work day positive state affect on the number of positive family-related affective events endorsed, such that this relationship would be stronger for those employees reporting high family-role salience. Similarly, hypothesis 20 proposed that work-role salience would moderate the relationship between morning positive state affect and the number of positive work-related affective events, such that this relationship would be stronger for those employees reporting high work-role salience. The theoretical idea underlying these two hypotheses is that positive state affect promotes an outward focus in one role that leads to positive interactions and psychological



availability in the receiving role when the receiving role is highly salient to the individual (e.g., Greenhaus & Powell, 2006). The results of this study did not support this theoretical argument. For a more thorough discussion on this point, please see the section on Theoretical Implications below.

## **Health Impacts**

Hypotheses 11 proposed that negative affective events accrued throughout the day and in both domains would positively influence physical symptoms reported at bedtime and negatively influence sleep quality reported the following morning. Results partially supported this hypothesis. While daily negative events were a significant predictor of physical symptoms, they did not significantly predict sleep quality. Similarly, Hypothesis 12 proposed that positive affective events accrued throughout the day and in both domains would negatively influence physical symptoms and positively influence sleep quality. This hypothesis was not supported by this study's results.

Hypothesis 13 proposed that daily positive events would moderate the relationships between daily negative events and physical symptoms and sleep quality, such that these relationships would be weaker for those reporting more daily positive events. This hypothesis was not supported by this study's results.

Hypothesis 14 proposed that negative affect at bedtime would be positively related to physical symptoms reported at bedtime and negatively related to sleep quality reported the following morning. This hypothesis was fully supported by the data. Similarly, Hypothesis 15 proposed that positive affect at bedtime would be negatively related to physical symptoms and positively to sleep quality. This hypothesis was partially supported by the data. While positive

affect at bedtime was a significant predictor of physical symptoms, it was not a significant predictor of sleep quality. However, as part of an exploratory analysis (Research Question 3), I also investigated whether discrete affective states were more likely to influence employee health and wellbeing than dimensional state affect. In that analysis, feeling excited at bedtime positively influenced sleep quality.

To interpret these results, I drew upon three independent theories: (1) the broaden-and-build theory (Fredrickson, 1998, 2001); (2) the job-demands-resources (JDR) model (Demerouti et al., 2001), and (3) the conservation of resources (COR) model (Hobfoll, 1989). The integration of these three theories suggests that exposure to positive affective events promotes resource-building positive emotions, while exposure to negative affective events promotes resource-depleting negative emotions (e.g., Bono et al., 2013). These psychological reactions to events may then influence health and wellbeing outcomes (Ganster and Rosen, 2013). The results of this study suggest that affect reported at the end of the day has health and wellbeing implications in the form of psychosomatic complaints and are in line with prior work (e.g., Bono et al., 2013; Denson et al., 2009; Houben et al., 2015). For example, and as more thoroughly discussed in the Within-Domain and Spillover Effects sections above, exposure to negative events within the work domain positively predicted negative state affect at the end of the workday. That affect, in turn, positively influenced the number of valence-congruent events endorsed within the family domain. Exposure to those negative family events positively predicted negative state affect at bedtime. That affect, in turn, positively predicted physical symptoms reported at bedtime and negatively predicted sleep quality reported the following morning. Following the same spillover sequence, positive affect at bedtime had similar relationships with these psychosomatic complaints, but in the opposite direction.

Finally, the hypothesized buffering effect of daily positive affective events on the relationships between daily negative affective events and health outcomes was not observed (see Hypothesis 13). Identifying ways to prevent or buffer against initial strain responses before they can lead to secondary and tertiary health outcomes is vitally important for occupational and personal health (allostatic load model; Ganster & Rosen, 2013) and is worthy of further investigation (see also Practical Implications below).

### **Theoretical Implications**

This study drew upon several independent theories to generate hypotheses and guide interpretation of its results. The results of this study support the hypothesis that affective spillover is the linking pin between the work and family domains, rather than affective events experienced within either domain. These results are in line with affective events theory, which proposes that life events have immediate emotional reactions that facilitate changes in positive and negative affective states. Those affective states, in turn, influence attitudes and behaviors (Weiss & Cropanzano, 1996). Also of import, a trend emerged from the results indicating that dimensional state affect reported within the work domain influenced only valence-congruent affective events in the family domain. For example, positive state affect at the end of the workday influenced the number of positive, but not the number of negative, affective events endorsed within the family domain. There also was some evidence that negative state affect, specifically feeling upset, in the morning influenced the number of negative, but not positive, affective events endorsed within the work domain. Overall then, these findings support mood-congruent cognitions theory, which states that affect generated in one domain will spillover and

generate mood-congruent, rather than mood-incongruent, experiences in the alternative domain (e.g., Judge & Iles, 2004).

Two theories upon which this study's hypotheses were based were not supported by the results, specifically boundary theory and role salience. Boundary theory suggests that strong boundaries between our life domains should prevent, or at least inhibit, affective spillover between domains (Ashforth et al., 2000). Thus, those who have more permeable boundaries (i.e., domain integration) between their life domains should experience more affective spillover than those who have less permeable boundaries. The results of this study provide no evidence in support of this argument. In fact, the opposite was observed. End of workday negative state affect positively influenced the number of negative affective events endorsed in the family domain but only for those with less permeable boundaries between their work and family domains. Research on the moderating effects of domain integration remains mixed and may require a revision to boundary theory going forward. Perhaps setting up strong boundaries between life domains creates unattainable expectations, which may increase negative outcomes for an employee. Taking for example the case I just illustrated, those who have created strong boundaries between their work and family domains may expect to compartmentalize negative affect generated in the work domain. The inability to do so may create frustration in the family domain, increasing the number of negative events experienced therein. Those who do expect affective spillover between their life domains may have developed tools to better manage their affective spillover than those who expect compartmentalization.

Social role theory and role salience converge to suggest that those high in work- or family-role salience will compartmentalize negative affect and prevent spillover into the work or family domain, respectively, and thus buffer against the negative effects of one domain on the

other more important domain. They also suggest that positive affect will spillover from one domain into the alternative domain and promote positive interactions therein when the alternative domain is highly salient to the individual (e.g., Greenhaus & Powell, 2006). Moderating effects of role salience were not observed in this study. Despite the importance of either role to an individual, perhaps it is difficult, if not impossible, to manage emotions in the simplistic way articulated by these theories. Consequently, the research on the moderating effects of role salience remains mixed and deserves further research attention.

Finally, this study generally supports the dimensional approach to conceptualizing and measuring affective states. By that, I mean the results of this study suggest that discrete emotions share underlying variance that can be explained by a simple dimensional structure (e.g., Watson et al., 1998), with only two exceptions. First, dimensional negative state affect in the morning did not significantly predict the number of negative affective events endorsed in the work domain ( $\beta = 0.00, \rho > .05$ ). However, a discrete negative state affect, specifically feeling upset, did ( $\beta = 0.09, \rho < .05$ ). Second, dimensional positive state affect at bedtime did not significantly predict sleep quality ( $\beta = -0.05, \rho > .05$ ). However, a discrete positive state affect, namely feeling excited, did ( $\beta = 0.13, \rho < .01$ ). Thus, to prevent a loss of information, studying affect through the lenses of both approaches is a worthwhile endeavor and not particularly burdensome given the fact that scores on discrete affective states are already available to the researcher for aggregation purposes.

### **Practical Implications**

Not surprisingly, organizational research tends to focus its efforts on the impact of work- rather than family-related experiences on employee outcomes. The extant organizational

literature on affective spillover between the two domains has been mixed regarding whether state affect accrued the day before persists to the next morning (e.g., Sonnentag & Binnewies, 2013). Failing to explore how experiences in the family domain contribute to or facilitate changes in state affect might have contributed to these mixed study results.

The results of this study suggest that daily affective experiences in the family domain facilitate changes in positive and negative affective states, which persist to the next morning. Morning state affect is important because it sets a tone for the rest of the day and may influence employees' experiences in the work domain. Indeed, this study showed that negative, but not positive, affect reported in the morning influenced the number of negative affective events endorsed by employees in the work domain, which then influenced experiences in the family domain through affect.

Given the results of this study, it might behoove organizations and employees alike to give more prominence to positive events to promote positive, rather than negative, affective spillover between the two domains, given their interdependency and cumulative effects on health and wellbeing. Such efforts may foster more positive events in both domains, leading to better health and organizational performance. In addition to rewards and recognition programs, interventions that facilitate positive reflection have proven successful. For example, Bono et al. (2013) found that merely recording three good things that happened that day (personal or work-related) and explaining why those good things happened was enough to reduce psychosomatic complaints and stress, as well as buffer the negative effects of family-to-work conflict on physical and mental health.

I hope the results of this research will encourage organizational scholars to explore employee experiences in their non-work domains that go beyond work-family conflict and

enrichment episodes. That way, we are more likely to identify additional avenues by which both organizations and employees can be proactive in promoting worker health.

### **Limitations and Future Directions**

The results of this study should be viewed in light of its limitations. First, all data were self-reported, which may raise concerns that the relationships observed among the variables are inflated due to common method variance. Spector (2006), however, found that common method variance is often overstated and that an appropriate study design is one that is capable of addressing the research questions raised by the study. This study's focal variables were state affect, psychosomatic complaints, and sleep quality which are not easily observable and require self-report data. On the other hand, self-report data may not be the only means to assess the number of affective events a person encounters throughout the day (i.e., observational methods). In this case, however, the way in which affective events were measured reduces accuracy concerns. In explanation, each of the affective event inventories required the participant to simply indicate whether or not he or she encountered one or more delineated events. In this way, the participants relied on recognition rather than recall, reducing memory error. Furthermore, it cannot be assumed that an outside observer would be privy to all events encountered throughout the day and across domains. Thus, self-report surveys were considered the most appropriate method of data collection for this study. Future research, however, should consider incorporating objective indicators of health and wellbeing. The advent of reasonably-priced, non-intrusive, and mobile biometric devices, while still in their nascent stages of development, would greatly improve the assessment of health and wellbeing beyond subjective reports.

Second, affective events encountered in each domain were assessed at the end of the shift, so to speak: (1) work events at the end of the workday; and (2) family events at bedtime. Thus, diary surveys required the participants to revisit events they encountered throughout the day, which may have influenced their state affect reported at the same time and, perhaps, artificially inflated the relationships among these variables. To reduce this concern, participants were required to report on their current affect before indicating whether or not they encountered any of the domain-specific affective events.

Third, the results of this study are based on correlational analyses and, therefore, cannot speak to causation. However, the daily diary method employed in this study is much better equipped to provide insight into the direction of effects than cross-sectional designs. The temporal separation between measurements of focal variables also bolsters confidence in the spillover effects observed in this study.

Fourth, while every effort was made to create comprehensive affective event inventories based on frequency of endorsement by a separate pilot sample, the inventories had to be short and general to accommodate occupational variability and reduce the burden of the daily diary design on the participants. This approach may have achieved comprehensiveness but not specificity. For example, one work-related affective event item asked whether or not the participant had fun with colleagues that day. Different types of positive interactions among coworkers may have different effects on health and wellbeing, which could not be tested in this study. Another limitation inherent in the affective event inventories was their exclusive focus on only a limited number of possible domain-specific events, perhaps resulting in a considerable loss of information. Work and family environments and individuals within them vary considerably. Future work in this area should consider a more qualitative approach to assessing



domain-specific affective events. Qualitative methods would allow assessment of not only events, but their frequency, importance, and intensity, and provide a better understanding of the effects of domain-specific affective events on employee health and wellbeing.

Finally, this study's sample was largely female (76.5%) and worked a standard work-shift, Monday through Friday. Thus, caution should be taken before generalizing the results of this study to employees who are male or work non-standard work shifts. Effects may differ in more diverse samples, highlighting the importance of future research in this area.

## **Conclusions**

Overall, the results of this study support the argument that affective spillover is the linking pin between the work and family domains and has health and wellbeing implications for employees. Specifically, tests of this study's hypotheses suggest that exposure to affective events throughout the workday influences state affect at the end of the workday, which then influences the number of valence-congruent affective events within the family domain. Exposure to those family-related affective events exacts corresponding changes in state affect, which not only persist to the next morning but impact employee health and wellbeing in terms of psychosomatic complaints.

Understanding how and to what extent people integrate their work and family roles and the effects thereof on worker health is of the utmost importance to both organizations and their employees. Organizational scholarship, however, tends to deemphasize employee experiences in their non-work domains that go beyond work-family conflict and enrichment episodes. This study's strength is that it did incorporate and investigate the impact of more diverse employee experiences within the family domain on work-related experiences and employee health and

wellbeing. I hope this research provokes additional work in this area with an eye toward identifying additional avenues by which both organizations and employees can be proactive in promoting worker health.

## REFERENCES

- Allen, T. D. (2012). *The work-family interface*. In S. W. J. Kozlowski (Ed). Oxford Handbook of Industrial and Organizational Psychology. (pp. 1163-1198). New York: Oxford University Press.
- Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278-308.
- Allis P., & O'Driscoll, M. (2008). Positive effects of nonwork-to-work facilitation on well-being in work, family and personal domains. *Journal of Managerial Psychology, 23*, 273-291.
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. *Acad. Manag. Rev., 25*, 472-91.
- Barnett, R. C., & Hyde, J. S. (2001) Women, men, work, and family. *American Psychologist, 56*, 781-795.
- Barsade, S. G., Brief, A. P., & Spataro, S. E. (2003). The affective revolution in organizational behavior: The emergence of a paradigm. In J. Greenberg (Ed.) *OB: The state of the science* (2nd ed., pp. 3-52). Hillsdale, NJ: Erlbaum.
- Barsade, S. G., & Gibson, D. E. (2007). Why does affect matter in organizations? *Academy of Management Perspectives, 21*(4), 36-59.
- Beal, D. J., & Weiss, H. M. (2003). Methods of ecological momentary assessment in organizational research. *Organizational Research Methods, 6*(4), 440-464.

- Bellavia, G., & Frone, M. R. (2005). *Work-family conflict*. In J. Barling, E. K. Kelloway, & M. R. Frone (Eds.), *Handbook of work stress*. Thousand Oaks, CA: Sage.
- Bono, J. E., Glomb, T. M., Shen, W., Kim, E., & Koch, A. J. (2013). Building positive resources: Effects of positive events and positive reflection on work stress and health. *Academy of Management Journal*, *56*(6), 1601-1627.
- Boz, M., Martínez-Corts, I., & Munduate, L. (2009). Breaking negative consequences of relationship conflicts at work: The moderating role of work family enrichment and supervisor support. *Revista de Psicología del Trabajo y de las Organizaciones*, *25*, 113–121.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA US: Sage Publications, Inc.
- Bulger, C. A., Matthews, R. A., & Hoffman, M. E. (2007). Work and personal life boundary management: Boundary strength, work/personal life balance, and the segmentation-integration continuum. *J. Occup. Health Psychol.*, *12*(4), 365–75.
- Bureau of Labor Statistics (BLS). (2014, April 25). *Employment characteristics of families, 2013*. USDL-14-0658. Retrieved on December 3, 2014, from <http://www.bls.gov/news.release/famee.nr0.htm>
- Buysse, D. J., Reynolds, C. F., Monk, T. H., & Berman, S. R. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*, *28*(2), 193-213.
- Carlson, D. S. (1999). Personality and role variables as predictors of three forms of work-family conflict. *Journal of Vocational Behavior*, *55*, 236-253.

- Carlson, D. S., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior, 68*, 131-164.
- Carson, D. S., Grzywacz, J. G., Ferguson, M., Hunter, E. M., Clinch, C. R., & Arcury, T. A. (2011). Health and turnover of working mothers after childbirth via the work-family interface: An analysis across time. *Journal of Applied Psychology, 96*(5), 1045-1054.
- Culbertson, S. S., Mills, M. J., & Fullagar, C. J. (2012). Work engagement and work-family facilitation: Making homes happier through positive affective spillover. *Human Relations, 65*(9), 1155-1177.
- Cunningham, M. R. (1988). What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion, 12*, 309-331.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512.
- Demerouti, E., & Geurts, S. A. E. (2004). Towards a typology of work-home interaction. *Community, Work & Family, 7*(3), 285-309.
- Demerouti, E., Peeters, M. C. W., & van der Heijden, B. I. J. M. (2012). Work-family interface from a life and career stage perspective: The role of demands and resources. *International Journal of Psychology, 47*(4), 241-258.
- Denson, T. F., Spanovic, M., & Miller, N. (2009). Cognitive appraisals and emotions predict cortisol and immune responses: A meta-analysis of acute laboratory social stressors and emotion inductions. *Psychological Bulletin, 135*(6), 823-853.
- Desrochers, S., Hilton, J. M., & Larwood, L. (2005). Preliminary validation of the Work-Family Integration-Blurring Scale. *Journal of Family Issues, 26*(4), 442-466.

- Doumas, D. M., Margolin, G., & John, R. S. (2003). The relationship between daily marital interaction, work, and health-promoting behaviors in dual-earner couples. *Journal of Family Issues, 24*(1), 3-20.
- Dorio, J. M., Klein, R. H., & Allen, T. D. (2008). Work-related outcomes of the work-family interface: Why organizations should care. In K. Korabik, D. Lero, & D. Whitehead (Eds.) *Handbook of work-family integration (pp. 157-176)*. Amsterdam: Academic Press.
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review, 25*, 179-199.
- Ekman, P. (1992). An argument for basic emotions. *Cognition & Emotion, 6*, 169–200.
- Elfenbein, H. A. (2007). Emotion in organizations. *The Academy of Management Annals, 1*(1), 315-386.
- Fisher, C. D. (2000). Mood and emotions while working: Missing pieces of job satisfaction? *Journal of Organizational Behavior, 21*(2), 185-202.
- Fisher, C. D. (2002). Antecedents and consequences of real-time affective reactions at work. *Motivation and Emotion, 26*, 3–30.
- Fredrickson, B. L. (1998). What good are positive emotions? *Rev. Gen. Psychol., 2*, 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *Am. Psychol., 56*, 218-226.
- Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology (pp. 143-162)*. Washington, DC: American Psychological Association.

- Frone, M. R., Russell, M., & Cooper, M. L. (1995). Job stressors, job involvement and employee health: A test of identity theory. *Journal of Occupational and Organizational Psychology*, 68, 1–11.
- Ganster, D.C., & Rosen, C.C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5), 1085-1122.
- Goode, W. J. (1960). A theory of role strain. *American Sociological Review*, 25, 483-496.
- Grandey, A. A., Cordeiro, B. L., & Crouter, A. C. (2005). A longitudinal and multi-source test of the work-family conflict and job satisfaction relationship. *Journal of Occupational and Organizational Psychology*, 78, 305-323.
- Grant-Vallone, E. J., & Donaldson, S. I. (2001). Consequences of work-family conflict on employee well-being over time. *Work & Stress*, 15, 214-226.
- Greenberger, E., & O'Neil, R. (1993). Spouse, parent, worker: Role commitments and role-related experiences in the construction of adults' wellbeing. *Developmental Psychology*, 29, 181-197.
- Greenhaus, J. H., Allen, T. D., & Spector, P. E. (2006). Health consequences of work-family conflict: The dark side of the work-family interface. In P. L. Perrewe & D. C. Ganster (Eds). *Research in occupational stress and well being*, Volume 5 (pp. 61-99). JAI Press/Elsevier.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources and conflict between work and family roles. *Academy of Management Review*, 10, 76-88.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A Theory of work-family enrichment. *Academy of Management Review*, 31(1), 72-92.

- Greenhaus & Powell (2003). When work and family collide: Deciding between competing life roles. *Organizational Behavior and Human Decision Processes*, 90(2), 291-303.
- Grzywacz, J. G., Almeida, D. M., & McDonald, D. A. (2002). Work-family spillover and daily reports of work and family stress in the adult labor force. *Family Relations*, 51, 28-36.
- Grzywacz, J. G., & Butler, A. B. (2005). The impact of job characteristics on work-to-family facilitation. Testing a theory and distinguishing a construct. *Journal of Occupational Health Psychology*, 10(2), 97-109.
- Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5(1), 111-126.
- Grzywacz, J. G., Carlson, D. S., Kacmar, K. M., & Wayne, J. H. (2007). A multi-level perspective on the synergies between work and family. *Journal of Occupational and Organizational Psychology*, 80, 559-574.
- Hammer, L. B., Cullen, J. C., Neal, M. B., Sinclair, R. R., & Shafiro, M. V. (2005). The longitudinal effects of work-family conflict and positive spillover on depressive symptoms among dual-earner couples. *Journal of Occupational Health Psychology*, 10(2), 138-154.
- Hammer, L. B., & Zimmerman, K. L. (2011). Quality of work life. In S. Zedeck, S. Zedeck (Eds.), *APA handbook of industrial and organizational psychology, Vol 3: Maintaining, expanding, and contracting the organization* (pp. 399-431). Washington, DC, US: American Psychological Association.



- Hanson, G. C., Hammer, L. B., & Colton, C. L. (2006). Development and validation of a multidimensional scale of perceived work-family positive spillover. *Journal of Occupational Health Psychology, 11*(3), 249-265.
- Hart, P. M. (1999). Predicting employee life satisfaction: A coherent model of personality, work and nonwork experiences, and domain satisfaction. *Journal of Applied Psychology, 84*(4), 564-584.
- Heller, D., & Watson, D. (2005). The dynamic spillover of satisfaction between work and marriage: The role of time and mood. *Journal of Applied Psychology, 90*(6), 1273-1279.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524.
- Houben, M., van den Noortgate, W., & Kuppens (2015). The relation between short-term emotion dynamics and psychological wellbeing: A meta-analysis. *Psychological Bulletin, 141*(4), 901-930.
- Ilies, R., Schwind, K. M., Wagner, D. T., & Johnson, M. D. (2007). When can employees have a family life? The effects of daily workload and affect on work-family conflict and social behaviors at home. *Journal of Applied Psychology, 92*(5), 1368-1379.
- Ilies, R., Wilson, K. S., & Wagner, D. T. (2009). The spillover of daily job satisfaction onto employees' family lives: The facilitating role of work-family integration. *Academy of Management Journal, 52*(1), 87-102.
- Jones, F., & Fletcher, B. (1996). Taking work home: A study of daily fluctuations in work stressors, effects on moods and impacts on marital partners. *Journal of Occupational and Organizational Psychology, 63*(1), 89-106.

- Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: A study of their relationship at work and at home. *Journal of Applied Psychology, 89*, 661–673.
- Judge, T. A., Ilies, R., & Scott, B. A. (2006). Work-family conflict and emotions: effects at work and at home. *Personnel Psychology, 59*, 779-814.
- Kahn, R. L., Wolfe, D. M., Quinn, R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress*. New York: Wiley.
- Katz, D., & Kahn, R. L. *The social psychology of organizations*. 2<sup>nd</sup> ed. New York: Wiley, 1978.
- Kinnunen, U., Vermulst, A., Gerris, J., & Makkangas, A. (2003). Work-family conflict and its relations to well-being: The role of personality as a moderating factor. *Personality and Individual Differences, 35*, 1669-1683.
- Kossek, E. E. & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior human resources research. *Journal of Applied Psychology, 83*, 139-149.
- Kreiner, G. E. (2006). Consequences of work-home segmentation or integration: A person-environment fit perspective. *Journal of Organizational Behavior, 27*, 485-507.
- Lambert, S. J. (1990). Processes linking work and family: A critical review and research agenda. *Human Relations, 43*, 239-257.
- Lawson, K. M., Davis, K. D., McHale, S. M., Hammer, L. B., & Buxton, O. M. (2014). Daily positive spillover and crossover from mothers' work to youth health. *Journal of Family Psychology, 28*(6), 897-907.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lee, R. T., Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology, 81*(2), 123-133.

- Lobel, S. A., & St. Clair, L. (1992). Effects of family responsibilities, gender, and career identity salience on performance outcomes. *Academy of Management Journal*, 35, 1057–1069.
- Lodahl, T. M., & Kejnar, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49(1), 24-33.
- Lubbers, R., Loughlin, C., & Zweig, D. (2005). Young workers' job self-efficacy and affect: Pathways to health and performance. *Journal of Vocational Behavior*, 67, 199-214.
- Mackinnon, A., Jorm, A. F., Christensen, H. Korten, A. E., Jacomb, P. A., & Rodgers, B. (1999). A short form of the Positive and Negative Affect Schedule: Evaluation of factorial validity and invariance across demographic variables in a community sample. *Personality and Individual Differences*, 27, 405-416.
- Marco, C. A., & Suls, J. (1993). Daily stress and the trajectory of mood: spillover, response assimilation, contrast, and chronic negative affectivity. *Journal of Personality and Social Psychology*, 64(6), 1053-1063.
- Marks, S. (1977). Multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review*, 42, 921-936.
- Martinez-Corts, I., Demerouti, E., Bakker, A. B., & Boz, M. (2015, January 19). Spillover of interpersonal conflicts from work to nonwork: A daily diary study. *Journal of Occupational Health Psychology*. Advance online publication.
- Masuda, A. D., McNall, L. A., Allen, T. D., & Nicklin, J. M. (2012). Examining the constructs of work-to-family enrichment and positive spillover. *Journal of Vocational Behavior*, 80, 197-210.
- Maertz, C. P., & Boyar, S. L. (2011). Work-family conflict, enrichment, and balance under “levels” and “episodes” approaches. *Journal of Management*, 37(1), 68-98.

- Mesmer-Magnus, J. R., & Viswesvaran, C. (2006). How family-friendly work environments affect work/family conflict: A meta-analytic examination. *Journal of Labor Research, 27*, 555-574.
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of work-family conflict: A meta-analytic review. *Journal of Organizational Behavior, 32*, 689-725.
- Mignonac, D., & Herrbach, O. (2004). Linking work events, affective states, and attitudes: An empirical study of managers' emotions. *Journal of Business and Psychology, 19*(2), 221-240.
- Miner, A. G., Glomb, T. M., & Hulin, C. (2005). Experience sampling mood and its correlates at work. *Journal of Occupational and Organizational Psychology, 78*, 171-193.
- Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of Applied Psychology, 96*(1), 71-94.
- Nezlek, J. B. (2012). Multilevel modeling for psychologists. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol 3: Data analysis and research publication* (pp. 219-241). Washington, DC US: American Psychological Association.
- Ohly, S., & Schmitt, A. (2015). What makes us enthusiastic, angry, feeling at rest or worried? Development and validation of an affective work events taxonomy using concept mapping methodology. *Journal of Business Psychology, 30*, 15-35.

- Ohly, A., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research: An introduction and some practical recommendations. *Journal of Personnel Psychology, 9*(2), 79-93.
- Parasuraman, S., & Greenhaus, J. H. (2002). Toward reducing some critical gaps in work-family research. *Human Resource Management Review, 12*, 299-312.
- Powell, G. N., & Greenhaus, J. H. (2006). Is the opposite of positive negative? *Career Development International, 11*(7), 650-659.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437-448.
- Prottas, D. J., & Hyland, M. M. (2011). Is high involvement at work and home so bad? Contrasting scarcity and expansionist perspectives. *The Psychologist-Manager Journal, 14*, 29-51.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and Data Analysis Methods, Second Edition*. Newbury Park, CA: Sage.
- Roseman, I. J. (2008). Motivations and emotivations: Approach, avoidance, and other tendencies in motivated and emotional behavior. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 343–366). New York: Psychology Press.
- Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46*, 655-684.
- Sanz-Vergel, A. I., Rodriguez-Munoz, A., & Nielsen, K. (2015). The thin line between work and home: The spillover and crossover of daily conflicts. *Journal of Occupational and Organizational Psychology, 88*, 1-18.

- Scherbaum, C.A., & Ferreter, J.M. (2009). Estimating statistical power and required sample sizes for organizational research using multilevel modeling. *Organizational Research Methods*, 12, 347-367.
- Schiffirin, H. H., & Falkenstern, M. (2012). The impact of affect on resource development: Support for the broaden-and-build model. *North American Journal of Psychology*, 14(3), 569.
- Seidlitz, L., & Diener, E. (1993). Memory for positive versus negative life events: Theories for differences between happy and unhappy persons. *Journal of Personality and Social Psychology*, 64(4), 654-664.
- Shockley, K., & Allen, T. D. (2008, April). Understanding flexible work arrangement utilization: An individual differences perspective. In M. Butts & W. Casper, *New Perspectives on Individual Differences in Work-Family Research*. Symposium presented at the 23rd Annual Conference of the Society for Industrial and Organizational Psychology, San Francisco, CA.
- Shockley, K. M., Ispas, D., Rossi, M. & Levine, E. L. (2012). A meta-analytic investigation of the relationship between state affect, discrete emotions, and job performance. *Human Performance*, 25, 377-411.
- Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review*, 39, 567-578.
- Skarlicki, D. P., van Jaarsveld, D. D., & Walker, D. D. (2008). Getting even for customer mistreatment: The role of moral identity in the relationship between customer interpersonal injustice and employee sabotage. *Journal of Applied Psychology*, 93, 1335–1347.

- Song, Z., Foo, M-D., & Uy, M. A. (2008). Mood spillover and crossover among dual-earner couples: A cell phone event sampling study. *Journal of Applied Psychology, 93*(2), 443-452.
- Sonnentag, S., & Binnewies, C. (2013). Daily affect spillover from work to home: Detachment from work and sleep as moderators. *Journal of Vocational Behavior, 83*, 198-208.
- Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods, 9*, 221-232.
- Spector, P. E., & Jex, S. M. (1998). Development of Four Self-Report Measures of Job Stressors and Strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology, 3*, 356-367.
- Tellegen A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In *Anxiety and The Anxiety Disorders* (Edited by Tuma A. H. and Mason J.), pp. 681-706. Erlbaum, Hillsdale, N.J.
- van Steenbergen, Ellemers, N., & Mooijaart, A. (2007). How work and family can facilitate each other: Distinct types of work-family facilitation and outcomes for women and men. *Journal of Occupational Health Psychology, 12*(3), 279-300.
- Thoits, P. A. (1992). Identity structures and psychological well-being: Gender and marital status comparisons. *Social Psychology Quarterly, 55*, 236–256.
- Waldron, I., Weiss, C. C., & Hughes, M. E. (1998). Interacting effects of multiple roles on women's health. *Journal of Health and Social Behavior, 39*, 216-236.
- Watson. D.. & Clark. L. A. (1994). The PANAS-X: Manual for the Positive and Negative Affect Schedule-Expanded Form. Unpublished manuscript. University of Iowa, Iowa City.

- Watson, D., & Clark, L. A. (1984). Negative Affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, *96*, 465-490.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063–1070.
- Wayne, J. H. (2009). Reducing conceptual confusion: Clarifying the positive side of work and family. In D. R. Crane & E. J. Hill (Eds). *Handbook of families and work: Interdisciplinary Perspectives*, (pp. 105-140). Lanham, MD: University Press of America.
- Weiss, H. M., Suckow, K., & Cropanzano, R. (1999). Effects of justice conditions on discrete emotions. *Journal of Applied Psychology*, *84*(5), 786-794.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior*, *18*, 1–74.
- Williams, A., Franche, R.-L., Ibrahim, S., Mustard, C. A., & Layton, F. R. (2006). Examining the relationship between work-family spillover and sleep quality. *Journal of Occupational Health Psychology*, *11*, 27-37.
- Wolfram, H.-J., & Gratton, L. (2014). Spillover between work and home, role importance and life satisfaction. *British Journal of Management*, *25*, 77–90.



## APPENDICES

## Appendix A: Items for Time 1 Survey and Daily Diaries

### Time 1 Survey:

*Demographic information* will be collected at Time 1 including gender, marriage status, age in years, number and age of children, job tenure in months, hours worked per week and per day, job title, and education level.

### *Affect* (Panas-X)

<b>Please indicate the extent that you feel each of the following emotions on average</b>	<b>Not at all</b>	<b>A little</b>	<b>Moderately</b>	<b>Quite a bit</b>	<b>Extremely</b>
Afraid					
Scared					
Nervous					
Jittery					
Irritable					
Hostile					
Guilty					
Ashamed					
Upset					
Distressed					
Active					
Alert					
Attentive					
Determined					
Enthusiastic					
Excited					
Inspired					
Interested					
Proud					
Strong					

### *Work-role Salience* (Lodahl & Kejner, 1965)

<b>Please indicate the extent that you agree or disagree with the following statements.</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neither agree nor disagree</b>	<b>Agree</b>	<b>Strongly agree</b>
I am very much personally involved in my work					
The major satisfaction in my life comes from my work					
The most important things that					

happen to me involve my work					
------------------------------	--	--	--	--	--

**Family-role Salience** (Lodahl & Kejner, 1965)

Please indicate the extent that you agree or disagree with the following statements.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am very much personally involved with my family					
The major satisfaction in my life comes from my family					
The most important things that happen to me involve my family					

**Work-Family Integration Scale** (Desrochers et al., 2005)

Please indicate the extent that you agree or disagree with the following statements.	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
It is often difficult to tell where my work life ends and my family life begins					
In my life, there is a clear boundary between my career and my family role					
I tend to integrate my work and family duties when I work at home					

**Morning:**

**Affect** (Panas-X Short Form in BOLD)

Please indicate the extent that you feel each of the following emotions on average/at this moment	Not at all	A little	Moderately	Quite a bit	Extremely
Afraid					
Scared					
Nervous					
Upset					
Distressed					
Alert					
Determined					
Enthusiastic					
Excited					
Inspired					

### ***Sleep Quality***

In reference to last night, how would you rate your sleep quality overall? This scale will have 4 response options, from 1 (very bad) to 4 (very good).

### **End of Workday Diary:**

#### ***Affect*** (Panas-X Short Form in BOLD)

<b>Please indicate the extent that you feel each of the following emotions on average/at this moment</b>	<b>Not at all</b>	<b>A little</b>	<b>Moderately</b>	<b>Quite a bit</b>	<b>Extremely</b>
Afraid					
Scared					
Nervous					
Upset					
Distressed					
Alert					
Determined					
Enthusiastic					
Excited					
Inspired					

#### ***Work Affective Events***

<b>Please indicate whether or not you encountered any of the following events since the start of your work day</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
I received praise from a supervisor			
I received a pay raise, promotion, or an improvement in benefits			
I was assigned a project or task I really wanted			
My colleagues and I had fun at work			
I could not complete an important task or project because of continual interruptions			
Problems with work technology, tools, or equipment hurt my progress on an important project or task			
I received unfair criticism from a supervisor			
Someone at work was nasty, offensive, or rude to me			
I worked overtime against my wishes			

**Bedtime:****Affect** (Panas-X Short Form in BOLD)

<b>Please indicate the extent that you feel each of the following emotions on average/at this moment</b>	<b>Not at all</b>	<b>A little</b>	<b>Moderately</b>	<b>Quite a bit</b>	<b>Extremely</b>
Afraid					
Scared					
Nervous					
Upset					
Distressed					
Alert					
Determined					
Enthusiastic					
Excited					
Inspired					

**Physical Wellbeing** (Spector & Jex, 1998)

<b>Throughout the day, to what extent did you experience the following symptoms?</b>	<b>Not at all</b>	<b>A little</b>	<b>Moderately</b>	<b>Quite a bit</b>	<b>Severely</b>
1. An upset stomach or nausea					
2. A backache					
3. Headache					
4. Acid indigestion or heartburn					
5. Eye strain					
6. Diarrhea					
7. Stomach cramps (not menstrual)					
8. Constipation					
9. Ringing in the ears					
10. Loss of appetite					
11. Dizziness					
12. Tiredness or fatigue					

**Family Affective Events**

<b>Please indicate whether or not you encountered any of the following events since you left work</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
I had fun with family or friends			
I received praise from my spouse/domestic partner			
I received praise from my children			
I received good news about my personal/family health or finances			
My spouse/domestic partner was willing to take care of a family issue to make			

things easier on me			
I was emotionally intimate with my spouse/domestic partner			
I was physically intimate with my spouse/domestic partner			
I received unfair criticism from my spouse/domestic partner			
My children were nasty, offensive, or rude to me			
I received bad news about my personal/family health or finances			
My spouse/domestic partner refused to discuss something important to with me			
I had an argument or confrontation with my spouse/domestic partner			
I had an argument or confrontation with my children			
I asked but did not receive help on household chores			

## Appendix B: Study Hypotheses and Proposed Direction of Effects

Hypotheses	Within Domain	Work-to-Family	Family-to-Work
1. The number of positive workplace events endorsed is:			
a. positively related to end-of-the-workday positive state affect	√		
b. negatively related to end-of-the-workday negative state affect	√		
2. The number of negative workplace events endorsed is:	--	--	--
a. positively related to end-of-the-workday negative state affect	√		
b. negatively related to end-of-the-workday positive state affect	√		
3. The number of positive family-related events endorsed is:	--	--	--
a. positively related to positive state affect at bedtime	√		
b. negatively related to negative state affect at bedtime	√		
4. The number of negative family-related events endorsed is:	--	--	--
a. positively related to negative state affect at bedtime	√		
b. negatively related to positive state affect at bedtime	√		
5. End-of-the-workday positive state affect is:	--	--	--
a. negatively related to the number of negative family-related events endorsed		√	
b. positively related to the number of positive family-related events endorsed		√	
6. End-of-the-workday negative state affect is:	--	--	--
a. positively related to the number of negative family-related events endorsed		√	
b. negatively related to the number of positive family-related events endorsed		√	
7. Negative state affect at bedtime is:	--	--	--
a. positively related to negative state affect the next morning	√		
b. negatively related to positive state affect the next morning	√		
8. Positive state affect at bedtime is:	--	--	--
a. negatively related to negative state affect the next morning	√		
b. positively related to positive state affect the next morning	√		
9. Positive state affect in the morning is:	--	--	--
a. positively related to the number of positive workday events endorsed			√
b. negatively related to the number of negative workday events endorsed			√
10. Negative state affect in the morning is:	--	--	--
a. positively related to the number of negative workday events endorsed			√
b. negatively related to the number of positive workday events endorsed			√
11. The number of negative events, both work- and family-related, endorsed is:	--	--	--
a. positively related to physical symptoms	√	√	√

Hypotheses	Within Domain	Work-to-Family	Family-to-Work
b. negatively related to sleep quality	√	√	√
12. The number of positive events, both work- and family-related, endorsed is:	--	--	--
a. negatively related to physical symptoms	√	√	√
b. positively related to sleep quality	√	√	√
13. The number of positive events, both work- and family-related, endorsed moderates the relationships between negative events and:	--	--	--
a. physical symptoms	√	√	√
b. sleep quality	√	√	√
14. Negative state affect at bedtime is:			
a. positively related to physical symptoms	√	√	√
b. negatively related to sleep quality	√	√	√
15. Positive state affect at bedtime is:			
a. negatively related to physical symptoms	√	√	√
b. positively related to sleep quality	√	√	√
16. Domain integration moderates the relationships between:	--	--	--
a. end-of-the-workday state affect and the number of valence-congruent family-related events endorsed		√	
b. morning state affect and the number of valence-congruent work-related events endorsed	√		
17. Family-role salience moderates the relationship between end-of-workday negative state affect and the number of negative family-related events endorsed		√	
18. Work-role salience moderates the relationship between morning state affect and the number of negative work-related events endorsed			√
19. Family-role salience moderates the relationship between end-of-work day positive state affect on the number of positive family-related events endorsed		√	
20. Work-role salience moderates the relationship between morning positive state affect and the number of positive work-related events endorsed			√



## Appendix C: Additional Tables

Table C1: Hypothesis 1a

*The Effect of the Number of Workplace Positive Events Endorsed on End of Workday Positive State Affect, Controlling for Morning Positive State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.40**	0.05	-
Level 1			
MPA $\gamma_{10}$	0.22**	0.04	-
WPE $\gamma_{20}$	0.13**	0.03	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.37**
$\tau_{11}$	-	-	0.07**
$\tau_{21}$	-	-	0.02**
Level 1			
$\sigma^2$	-	-	0.27

Notes: MPA = Positive State Affect that Morning; WPE = Number of Workplace Positive Events Endorsed

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C2: Hypothesis 1b

*Effect of the Number of Workplace Positive Events  
Endorsed on End of Workday Negative State Affect,  
Controlling for Morning Negative State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.32**	0.03	-
Level 1			
MNA $\gamma_{10}$	0.18**	0.05	-
WPE $\gamma_{20}$	-0.10**	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.07**
$\tau_{11}$	-	-	0.08**
$\tau_{21}$	-	-	0.01**
Level 1			
$\sigma^2$	-	-	0.12

Notes: MNA = Negative State Affect that Morning;  
WPE = Number of Workplace Positive Events Endorsed  
Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C3: Hypothesis 2a

*The Effect of the Number of Workplace Negative Events  
Endorsed on End of Workday Negative State Affect,  
Controlling for Morning Negative State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.32**	0.03	-
Level 1			
MNA $\gamma_{10}$	0.18**	0.05	-
WNE $\gamma_{20}$	0.11**	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.07**
$\tau_{11}$	-	-	0.07*
$\tau_{21}$	-	-	0.01
Level 1			
$\sigma^2$	-	-	0.13

Notes: WNE = Number of Workplace Negative Events  
Endorsed; MNA = Negative State Affect that Morning  
Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C4: Hypothesis 2b

*The Effect of the Number of Workplace Negative Events  
Endorsed on End of Workday Positive State Affect,  
Controlling for Morning Positive State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.40**	0.05	-
Level 1			
MPA $\gamma_{10}$	0.23**	0.04	-
WNE $\gamma_{20}$	-0.07*	0.03	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.37**
$\tau_{11}$	-	-	0.07
$\tau_{21}$	-	-	0.01
Level 1			
$\sigma_2$	-	-	0.29

Notes: WNE = Number of Workplace Negative Events Reported; MPA = Positive State Affect that Morning Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C5: Hypothesis 3a

*The Effect of the Number of Family Positive Events Endorsed on Positive State Affect at Bedtime, Controlling for End of Workday Positive State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.86**	0.05	-
Level 1			
WPA $\gamma_{10}$	0.26**	0.04	-
FPE $\gamma_{20}$	0.07**	0.05	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.31**
$\tau_{11}$	-	-	0.04**
$\tau_{21}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.25

Notes: WPA = Positive State Affect Immediately After Work; FPE = Number of Family Positive Events Endorsed

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C6: Hypothesis 3b

*The Effect of the Number of Family Positive Events  
Endorsed on Negative State Affect at Bedtime, Controlling  
for End of Workday Negative State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.26**	0.03	-
Level 1			
WNA $\gamma_{10}$	0.25**	0.05	-
FPE $\gamma_{20}$	-0.04**	0.01	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.09**
$\tau_{11}$	-	-	0.12**
$\tau_{21}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.08

Notes: WNA = Negative State Affect Immediately After Work; FPE = Number of Family Positive Events Endorsed

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C7: Hypothesis 4a

*The Effect of the Number of Family Negative Events  
Endorsed on Negative State Affect at Bedtime, Controlling  
for End of Workday Negative State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.26**	0.03	-
Level 1			
WNA $\gamma_{10}$	0.22**	0.05	-
FNE $\gamma_{20}$	0.11**	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.09**
$\tau_{11}$	-	-	0.10**
$\tau_{21}$	-	-	0.01**
Level 1			
$\sigma^2$	-	-	0.07

Notes: WNA = Negative State Affect Immediately After Work; FNE = Number of Family Negative Events Endorsed

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C8: Hypothesis 4b

*The Effect of the Number of Family Negative Events Endorsed on Positive State Affect at Bedtime, Controlling for End of Workday Positive State Affect*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.86**	0.05	-
Level 1			
WPA $\gamma_{10}$	0.27**	0.04	-
FNE $\gamma_{20}$	-0.06**	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.31**
$\tau_{11}$	-	-	0.05*
$\tau_{21}$	-	-	0.01
Level 1			
$\sigma^2$	-	-	0.25

Notes: WPA = Positive State Affect Immediately After Work; FNE = Number of Family Negative Events Endorsed

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).



Table C9: Hypothesis 5b

*The Effect of End of Workday Positive State Affect on the Number of Family Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.40**	0.03	-
Level 1			
W_PA $\gamma_{10}$	-0.07	0.05	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.04**
$\tau_{11}$	-	-	0.02
Level 1			
$\sigma^2$	-	-	0.61

Notes: W\_PA = Positive State Affect Immediately After Work

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C10: Hypothesis 5b

*The Effect of End of Workday Positive State Affect on the Number of Family Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.61**	0.12	-
Level 1			
W_PA $\gamma_{10}$	0.20*	0.08	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	1.68**
$\tau_{11}$	-	-	0.03
Level 1			
$\sigma^2$	-	-	1.69

Notes: W\_PA = Positive State Affect Immediately After Work

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C11: Hypothesis 6a

*The Effect of End of Workday Negative State Affect on the Number of Family Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.40**	0.03	-
Level 1			
W_NA $\gamma_{10}$	0.21**	0.10	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.05**
$\tau_{11}$	-	-	0.38**
Level 1			
$\sigma^2$	-	-	0.55

Notes: W\_NA = Negative State Affect Immediately After Work

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C12: Hypothesis 6b

*The Effect of End of Workday Negative State Affect on the Number of Family Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.61**	0.12	-
Level 1			
W_NA $\gamma_{10}$	0.06	0.13	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	1.68**
$\tau_{11}$	-	-	0.11
Level 1			
$\sigma^2$	-	-	1.69

Notes: W\_NA = Negative State Affect Immediately After Work

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C13: Hypothesis 7a

*The Effect of Negative State Affect at Bedtime on Negative State Affect the Next Morning*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.29**	0.02	-
Level 1			
B_NA $\gamma_{10}$	0.25**	0.04	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.07**
$\tau_{11}$	-	-	0.05**
Level 1			
$\sigma^2$	-	-	0.09

Notes: B\_NA = Negative State Affect at Bedtime

Level 1 records = 1234

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C14: Hypothesis 7b

*The Effect of Negative State Affect at Bedtime on Positive State Affect the Next Morning*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.25**	0.05	-
Level 1			
B_NA $\gamma_{10}$	-0.20**	0.06	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.36**
$\tau_{11}$	-	-	0.07*
Level 1			
$\sigma^2$	-	-	0.32

Notes: B\_NA = Negative State Affect at Bedtime

Level 1 records = 1234

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C15: Hypothesis 8a

*The Effect of Positive State Affect at Bedtime on Negative State Affect the Next Morning*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.29**	0.02	-
Level 1			
B_PA $\gamma_{10}$	-0.06**	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.06**
$\tau_{11}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.11

Notes: B\_PA = Positive State Affect at Bedtime

Level 1 records = 1234

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C16: Hypothesis 8b

*The Effect of Positive State Affect at Bedtime on Positive State Affect the Next Morning*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.25**	0.05	-
Level 1			
B_PA $\gamma_{10}$	0.17**	0.04	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.37**
$\tau_{11}$	-	-	0.04*
Level 1			
$\sigma^2$	-	-	0.31

Notes: B\_PA = Positive State Affect at Bedtime

Level 1 records = 1234

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).



Table C17: Hypothesis 9a

*The Effect of Positive State Affect in the Morning on the Number of Workplace Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.00**	0.05	-
Level 1			
M_PA $\gamma_{10}$	0.03	0.05	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.33**
$\tau_{11}$	-	-	0.03**
Level 1			
$\sigma^2$	-	-	0.53

Notes: M\_PA = Positive State Affect in the Morning

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C18: Hypothesis 9b

*The Effect of Positive State Affect in the Morning on the Number of Workplace Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.59**	0.05	-
Level 1			
M_PA $\gamma_{10}$	0.00	0.04	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.30**
$\tau_{11}$	-	-	0.01
Level 1			
$\sigma^2$	-	-	0.45

Notes: M\_PA = Positive State Affect in the Morning

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C19: Hypothesis 10a

*The Effect of Negative State Affect in the Morning on the Number of Workplace Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.59**	0.05	-
Level 1			
M_NA $\gamma_{10}$	0.00	0.08	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.30**
$\tau_{11}$	-	-	0.10
Level 1			
$\sigma^2$	-	-	0.44

Notes: M\_NA = Negative State Affect in the Morning  
Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C20: Hypothesis 10b

*The Effect of Negative Affect in the Morning on the Number of Workplace Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.00**	0.05	-
Level 1			
M_NA $\gamma_{10}$	-0.03	0.08	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.33**
$\tau_{11}$	-	-	0.03
Level 1			
$\sigma^2$	-	-	0.54

Notes: M\_NA = Negative State Affect in the Morning  
Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C21: Hypothesis 11a

*The Effect of Daily Negative Events Endorsed Across Both Domains on Physical Symptoms*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.36**	0.02	-
Level 1			
NegE $\gamma_{10}$	0.03**	0.01	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.04**
$\tau_{11}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.04

Notes: NegE = Daily Negative Events Endorsed Across Both Domains

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C22: Hypothesis 11b

*The Effect of Daily Negative Events Endorsed Across Both Domains on Sleep Quality*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	3.34**	0.05	-
Level 1			
NegE $\gamma_{10}$	-0.02	0.04	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.29**
$\tau_{11}$	-	-	0.04*
Level 1			
$\sigma^2$	-	-	0.63

Notes: NegE = Daily Negative Events Endorsed Across Both Domains

Level 1 records = 854

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C23: Hypothesis 12a

*The Effect of Daily Positive Events Endorsed Across Both Domains on Physical Symptoms*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.36**	0.02	-
Level 1			
PosE $\gamma_{10}$	0.00	0.01	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.04**
$\tau_{11}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.05

Notes: PosE = Daily Positive Events Endorsed Across Both Domains

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C24: Hypothesis 12b

*The Effect of Daily Positive Events Endorsed Across Both Domains on Sleep Quality*

Parameters				
		Coefficient	SE	Variance
Fixed Effects				
Intercept $\gamma_{00}$		3.34**	0.05	-
Level 1				
	PosE $\gamma_{10}$	0.01	0.02	-
Random Parameters				
Level 2				
	$\tau_{00}$	-	-	0.28**
	$\tau_{11}$	-	-	0.00
Level 1				
	$\sigma^2$	-	-	0.68

Notes: PosE = Positive Events Endorsed Across Both Domains

Level 1 records = 868

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).



Table C25: Hypothesis 13a

*The Moderating Effect of Daily Positive Events Endorsed Across Domain on the Relationship between Daily Negative Events Endorsed Across Domains and Physical Symptoms*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.36**	0.02	-
Level 1			-
PosE $\gamma_{10}$	0.01	0.01	-
NegE $\gamma_{20}$	0.03**	0.01	-
PxN $\gamma_{30}$	0.00	0.01	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.04**
$\tau_{11}$	-	-	0.00
$\tau_{21}$	-	-	0.00
$\tau_{31}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.04

Notes: PosE = Daily Positive Events Endorsed Across Both Domains; NegE = Daily Negative Events Endorsed Across Both Domains; PxN = Within Level Interaction between PosE and NegE

Level 1 records = 902

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C26: Hypothesis 13b

*The Moderating Effect of Daily Positive Events Endorsed Across Domains on the Relationship between Daily Negative Events Endorsed Across Domains and Sleep Quality*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	3.35**	0.06	-
Level 1			-
PosE $\gamma_{10}$	0.00	0.02	-
NegE $\gamma_{20}$	0.00	0.04	-
PxN $\gamma_{30}$	0.04	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.30**
$\tau_{11}$	-	-	0.00
$\tau_{21}$	-	-	0.03*
$\tau_{31}$	-	-	0.00
Level 1			
$\sigma^2$	-	-	0.63

Notes: PosE = Daily Positive Events Endorsed Across Both Domains; NegE = Daily Negative Events Endorsed Across Both Domains; PxN = Within Level Interaction between PosE and NegE

Level 1 records = 848

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C27: Hypothesis 14a

*The Effect of Negative State Affect at Bedtime on Physical Symptoms*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.37**	0.02	-
Level 1			
B_NA $\gamma_{10}$	0.11**	0.02	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.04**
$\tau_{11}$	-	-	0.02**
Level 1			
$\sigma^2$	-	-	0.05

Notes: B\_NA = Negative State Affect at Bedtime

Level 1 records = 1322

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C28: Hypothesis 14b

*The Effect of Negative State Affect at Bedtime on Sleep Quality*

Parameters				
		Coefficient	SE	Variance
Fixed Effects				
Intercept $\gamma_{00}$		3.32**	0.05	-
Level 1				
	B_NA $\gamma_{10}$	-0.15*	0.07	-
Random Parameters				
Level 2				
	$\tau_{00}$	-	-	0.27**
	$\tau_{11}$	-	-	0.01
Level 1				
	$\sigma^2$	-	-	0.69

Notes: B\_NA = Negative State Affect at Bedtime

Level 1 records = 1234

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C29: Hypothesis 15a

*The Effect of Positive State Affect at Bedtime on Physical Symptoms*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.37**	0.02	-
Level 1			
B_PA $\gamma_{10}$	-0.07**	0.01	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.04**
$\tau_{11}$	-	-	0.01**
Level 1			
$\sigma^2$	-	-	0.05

Notes: B\_PA = Positive State Affect at Bedtime

Level 1 records = 1322

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C30: Hypothesis 15b

*The Effect of Postive State Affect at Bedtime on Sleep Quality*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	3.32**	0.05	-
Level 1			
B_PA $\gamma_{10}$	0.05	0.05	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.27**
$\tau_{11}$	-	-	0.02
Level 1			
$\sigma^2$	-	-	0.69

Notes: B\_PA = Positive State Affect at Bedtime

Level 1 records = 1234

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C31: Hypothesis 16a

*The Moderating Effect of Domain Integration on the Relationship between End of Workday Positive State Affect and the Number of Family Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.61**	0.12	-
Level 1			
W_PA $\gamma_{10}$	0.19*	0.08	-
Level 2			
INT $\gamma_{01}$	0.13	0.14	-
INT*W_PA $\gamma_{11}$	-0.03	0.10	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	1.68**
$\tau_{11}$	-	-	0.04
Level 1			
$\sigma^2$	-	-	1.69

Notes: W\_PA = Positive State Affect Immediately After Work; INT = Extent that Participants Integrate their Work and Family Domains; INT\*W\_PA = Cross-Level Interaction between W\_PA and INT

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C32: Hypothesis 16b

*The Moderating Effect of Domain Integration on the Relationship between End of Workday Negative State Affect and the Number of Family Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.39**	0.03	-
Level 1			
W_NA $\gamma_{10}$	0.24*	0.10	-
Level 2			
INT $\gamma_{01}$	0.01	0.04	-
INT*W_NA $\gamma_{11}$	-0.29*	0.13	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.05**
$\tau_{11}$	-	-	0.36**
Level 1			
$\sigma^2$	-	-	0.55

Notes: W\_NA = Negative State Affect Immediately After Work; INT = Extent that Participants Integrate their Work and Family Domains; INT\*W\_NA = Cross-Level Interaction between W\_NA and INT

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).



Table C33: Hypothesis 16c

*The Moderating Effect of Domain Integration on the Relationship between of Morning Positive State Affect and the Number of Workplace Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.01**	0.05	-
Level 1			
M_PA $\gamma_{10}$	0.04	0.05	-
Level 2			
INT $\gamma_{01}$	0.04	0.06	-
INT*M_PA $\gamma_{11}$	0.04	0.06	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.33**
$\tau_{11}$	-	-	0.03
Level 1			
$\sigma^2$	-	-	0.53

Notes: M\_PA = Positive State Affect in the Morning; INT = Extent that Participants Integrate their Work and Family Domains; INT\*M\_PA = Cross-Level Interaction between M\_PA and INT

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C34: Hypothesis 16d

*The Moderating Effect of Domain Integration on the Relationship between Morning Negative State Affect and the Number of Workplace Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.59**	0.05	-
Level 1			
M_NA $\gamma_{10}$	0.00	0.08	-
Level 2			
INT $\gamma_{01}$	0.16**	0.06	-
INT*M_NA $\gamma_{11}$	0.05	0.01	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.29**
$\tau_{11}$	-	-	0.11
Level 1			
$\sigma^2$	-	-	0.44

Notes: M\_NA = Negative State Affect in the Morning; INT = Extent that Participants Integrate their Work and Family Domains; INT\*M\_NA = Cross-Level Interaction between M\_NA and INT

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C35: Hypothesis 17

*The Moderating Effect of Family-Role Salience on the Relationship between End of Workday Negative Affect on the Number of Family Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.40**	0.03	-
Level 1			
W_NA $\gamma_{10}$	0.21*	0.11	-
Level 2			
FRS $\gamma_{01}$	0.04	0.05	-
FRS*W_NA $\gamma_{11}$	0.05	0.16	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.05**
$\tau_{11}$	-	-	0.39**
Level 1			
$\sigma^2$	-	-	0.55

Notes: W\_NA = Negative State Affect Immediately After Work;  
FRS = Family Role Salience; FRS\*W\_NA = Cross-Level  
Interaction between FRS and W\_NA

Level 1 records = 909

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C36: Hypothesis 18

*The Moderating Effect of Work-Role Salience on the Relationship between Morning Negative State Affect and the Number of Workplace Negative Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	0.59**	0.05	-
Level 1			
M_NA $\gamma_{10}$	-0.01	0.08	-
Level 2			
WRS $\gamma_{01}$	0.06	0.06	-
WRS*M_NA $\gamma_{11}$	0.00	0.09	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.30**
$\tau_{11}$	-	-	0.11
Level 1			
$\sigma^2$	-	-	0.44

Notes: M\_NA = Negative State Affect that Morning; WRS = Work Role Salience; WRS\*M\_NA = Cross-Level Interaction between WRS and M\_NA

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C37: Hypothesis 19

*The Moderating Effect of Family Role Salience on End of Work Positive State Affect on the Number of Family Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	2.61**	0.11	-
Level 1			
W_PA $\gamma_{10}$	0.19*	0.08	-
Level 2			
FRS $\gamma_{01}$	0.68**		-
FRS*W_PA $\gamma_{11}$	-0.08	0.11	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	1.48**
$\tau_{11}$	-	-	0.05
Level 1			
$\sigma^2$	-	-	1.68

Notes: W\_PA = Positive State Affect Immediately After Work; FRS = Family Role Salience; FRS\*W\_PA = Cross-Level Interaction between FRS and W\_PA

Level 1 records = 924

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).

Table C38: Hypothesis 20

*The Moderating Effect of Work-Role Salience on the Relationship between Morning Positive State Affect on the Number of Workplace Positive Events Endorsed*

Parameters	Coefficient	SE	Variance
Fixed Effects			
Intercept $\gamma_{00}$	1.00**	0.05	-
Level 1			
M_PA $\gamma_{10}$	0.03	0.05	-
Level 2			
WRS $\gamma_{01}$	0.15*	0.07	-
WRS*M_PA $\gamma_{11}$	0.04	0.06	-
Random Parameters			
Level 2			
$\tau_{00}$	-	-	0.32**
$\tau_{11}$	-	-	0.03
Level 1			
$\sigma^2$	-	-	0.53

Notes: M\_PA = Positive State Affect that Morning; WRS = Work Role Salience; WRS\*M\_PA = Cross-Level Interaction between WRS and M\_PA

Level 1 records = 1074

\*\* Coefficient is significant at the 0.01 level (2-tailed).

\* Coefficient is significant at the 0.05 level (2-tailed).