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# Three Essays on Work-Nonwork Balance

Min Wan

*University of Wisconsin-Milwaukee*

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**THREE ESSAYS ON WORK-NONWORK BALANCE**

**by**

**Min (Maggie) Wan**

**A Dissertation Submitted in  
Partial Fulfillment of the  
Requirements for the Degree of**

**Doctor of Philosophy  
in Management Science**

**at**

**The University of Wisconsin-Milwaukee**

**August 2016**

**ABSTRACT**  
**THREE ESSAYS ON WORK-NONWORK BALANCE**

by  
**Min (Maggie) Wan**

**The University of Wisconsin-Milwaukee, 2016**  
**Under the Supervision of Dr. Margaret Shaffer and Dr. Romila Singh**

Achieving balance between work and nonwork lives is important for individuals and organizations as it may generate various desirable outcomes, such as high role performance, positive role attitudes, and psychological and physiological well-being. However, scholars and practitioners have not reached a common understanding of the content and process of work-nonwork balance. A variety of work-nonwork balance definitions, theories, and measures, as well as numerous correlates, have emerged in this area. In addition, a majority of the studies focused on this topic have theorized work-nonwork balance as a stable construct and measured it in order to explain the between-individual variance. Consequently, we know little about the psychological processes whereby daily work and nonwork events can increase or decrease within-individual work-nonwork balance within a short period of time.

This three essay dissertation aims to address these gaps. Essay 1 presents a systematic review of past studies on work-nonwork balance. Extensive research has conceptualized and operationalized work-nonwork balance in various ways; in this essay, I classify these definitions into global and component approaches. I then provide a methodological review of work-nonwork balance research, summarize major themes and previous findings, and offer several recommendations for future research on work-nonwork balance.

Essays 2 and 3 are anchored in the review presented in Essay 1. In Essay 2, I develop and propose a model to examine how negative work task and relational events explain daily individuals' satisfaction with work-family balance (a common form of work-nonwork balance) by triggering their cognitive and affective reactions. This model is based on the integration of Cognitive and Affective Processing System (CAPS) theory and Conservation of Resources (COR) theory (Mischel & Shoda, 1995; Hobfoll, 1989). Using these theories, I propose that negative work events explain within-person variance of work-family balance on a daily basis, and individuals' negative work reflection and negative affect mediate the direct effects of negative work events on work-family balance. I also suggest that task and relational forms of job crafting (i.e., the proactive behaviors that employees actively engage in to redesign their jobs) (Wrzesniewski & Dutton, 2001), play a critical role in attenuating the detrimental effects of negative work events on the daily assessment of work-family balance. I use a daily diary study approach to examine the hypothesized relationships. Overall, the findings of Essay 2 support the prediction that work events have a detrimental influence on individuals' cognitive and affective reactions and, subsequently, their daily assessments of work-family balance. Further, the results indicate that job crafting (i.e., task and relational crafting) moderate the relationships between negative work events and cognitive and affective reactions, but the effects are not in the hypothesized direction. The theoretical and practical implications of these findings are discussed.

Essay 3 examines the parallel effects of negative family task and relational events on the daily assessment of satisfaction with work-family balance. The underlying theoretical frameworks used to propose and explain the hypothesized relationships are the same as the ones used in Essay 2 (i.e., CAPS and COR theories). Based on these theories, I propose that negative family events will influence work-family balance through their effects on negative family

reflection and negative affect. In addition, task and relational forms of family crafting may buffer the effects of negative family events on individuals' psychological reactions and satisfaction with work-family balance. A daily diary study is used to test the hypothesized model. The results provide limited support to the direct, indirect, and moderating relationships. The theoretical and practical implications of these results are discussed.

This dissertation makes three important contributions to the growing literature on work-nonwork balance. First, CAPS theory (Mischel & Shoda, 1995) and COR theory (Hobfoll, 1989) are integrated with research on work-family balance in order to provide a nuanced theoretical explanation of the within-person processes that emerge in the relationship between work and family events and daily assessments of work-family balance. Scholars have repeatedly emphasized the importance of considering the role of time in organizational behavior theory and research (e.g., Bluedorn & Denhardt, 1988; Mitchell & James, 2001). This dissertation responds to this call by explicitly examining the role of time as daily work and family events trigger cognitive and affective reactions, which in turn influence individuals' satisfaction with work-family balance. By focusing on the dynamic cognitive and affective reactions that undergird daily negative work and family events and work-family balance, I break new ground and test a theoretically-based process in which demands emanating from different domains lead to work-family balance.

Second, I theorize and provide support for a multilevel model that examines within-person work-family balance. The findings from my dissertation suggest that satisfaction with work-family balance varies across time and is contingent on several daily work and family negative events as well as individuals' cognitive and affective reactions to these events. I also contribute to the work-family literature by examining job and family crafting as proactive

behavioral strategies that can attenuate the detrimental effects of work and family events on psychological reactions. The findings from my study offer valuable insights into the possibilities and limitations of pursuing job and family crafting as a buffer against the deleterious influence of negative work or family events. Finally, this dissertation makes a methodological contribution to work-family research by using a daily diary approach, which is effective in capturing the variances in work-family balance assessments over time. In sum, this dissertation significantly broadens our understanding of work-nonwork balance research in several ways and systematically illustrates the process by which employees arrive at their assessments of work-family balance on a daily basis.

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## TABLE OF CONTENTS

<b>LIST OF FIGURES .....</b>	<b>x</b>
<b>LIST OF TABLES .....</b>	<b>xi</b>
<b>Essay 1: Work-Nonwork Balance: A Review and Future Agenda .....</b>	<b>1</b>
<b>Selection of Articles.....</b>	<b>4</b>
<b>Definitions.....</b>	<b>4</b>
Global Approaches.....	8
Component Approaches.....	12
<b>Theories.....</b>	<b>15</b>
Role-Based Theories.....	15
Resource-Based Theories.....	17
Border Theory.....	18
Fit Theory.....	19
Developmental Theories .....	20
<b>Methodology .....</b>	<b>22</b>
Measures .....	22
Sample Characteristics.....	33
Research Design and Analytic Approach .....	35
<b>Antecedents and Outcomes of Work-Nonwork Balance.....</b>	<b>37</b>
Antecedents.....	63
Outcomes .....	68
<b>Future Research Agenda.....</b>	<b>69</b>
Aligning Definitions and Measures of Work-Nonwork Balance .....	69
Considering the Role of Time.....	72
Emphasizing the Person-Centric Approach.....	75
Considering Multi-Level Resources .....	76
Emphasizing the Nonwork Domains .....	78
Including the Cultural Contexts.....	78
<b>Conclusion .....</b>	<b>79</b>



<b>References .....</b>	<b>80</b>
<b>Essay 2: The Effects of Negative Work Events on Daily Satisfaction with Work-Family Balance.....</b>	<b>92</b>
<b>Theories and Development of Hypotheses.....</b>	<b>97</b>
Negative Work Events and Negative Work Reflection .....	100
Negative Work Events and Negative Affect.....	102
Cognitive and Affective Reactions and Satisfaction with Work-Family Balance .....	103
Negative Work Events, Cognitive and Affective Reactions, and Satisfaction with Work-Family Balance .....	105
The Moderating Role of Job Crafting.....	106
<b>Method .....</b>	<b>110</b>
Participants and Procedure.....	110
Baseline Survey .....	112
Daily Survey Measures .....	113
Preliminary Analysis.....	115
Within-Person Results .....	119
Multilevel Moderation Results .....	125
<b>Discussion.....</b>	<b>129</b>
Theoretical Implications .....	129
Practical Implications.....	134
Limitations and Future Research .....	135
<b>Conclusion .....</b>	<b>139</b>
<b>References .....</b>	<b>140</b>
<b>Appendix A .....</b>	<b>148</b>
<b>Appendix B .....</b>	<b>150</b>
<b>Appendix C .....</b>	<b>152</b>
<b>Essay 3: A Diary Study on Negative Family Events and Satisfaction with Work-Family Balance.....</b>	<b>158</b>
<b>Theories and Hypotheses Development .....</b>	<b>162</b>
Theoretical Basis.....	162
Negative Family Events and Negative Psychological Reactions .....	165

Negative Psychological Reactions and Satisfaction with Work-Family Balance .....	168
Negative Family Events, Negative Psychological Reactions, and Satisfaction with Work-Family Balance .....	169
The Moderating Role of Family Crafting .....	170
<b>Method .....</b>	<b>173</b>
Participants and Procedure.....	173
Baseline Survey .....	175
Daily Survey Measures .....	176
Preliminary Analysis.....	178
Within-Person Results .....	182
Multilevel Moderation Results .....	186
<b>Discussion.....</b>	<b>187</b>
Theoretical Implications .....	189
Practical Implications.....	191
Limitations and Future Research .....	191
<b>Conclusion .....</b>	<b>193</b>
<b>References .....</b>	<b>194</b>
<b>Appendix A .....</b>	<b>200</b>
<b>Appendix B .....</b>	<b>202</b>
<b>Appendix C .....</b>	<b>204</b>
<b>Concluding Remarks .....</b>	<b>210</b>
<b>CURRICULUM VITAE.....</b>	<b>211</b>

## LIST OF FIGURES

<b>Essay 1: <i>Figure 1 Theoretical Model of Antecedents and Outcomes of Work-Nonwork Balance</i> .....</b>	<b>62</b>
<b>Essay 2: <i>Figure 1 Conceptual Model</i>.....</b>	<b>99</b>
<b>Essay 2: <i>Figure 2 Interaction Effects of Work Task Overload and Work Task Crafting on Negative Work Reflection</i> .....</b>	<b>128</b>
<b>Essay 2: <i>Figure 3 Interaction Effects of Work International Conflict and Work Relatioanl Crafting on Negative Affect</i>.....</b>	<b>128</b>
<b>Essay 3: <i>Figure 1 Conceptual Model</i>.....</b>	<b>156</b>

## LIST OF TABLES

Essay 1: <i>Table 1 Definitions of Work-Nonwork Balance</i> .....	6
Essay 1: <i>Table 2 Measures of Work-Nonwork Balance</i> .....	24
Essay 1: <i>Table 3 Sample Characteristics</i> .....	34
Essay 1: <i>Table 4 Methodology</i> .....	36
Essay 1: <i>Table 5 Antecedents of Global Work-Nonwork Balance</i> .....	38
Essay 1: <i>Table 6 Antecedents of Component Work-Nonwork Balance</i> .....	49
Essay 1: <i>Table 7 Outcomes of Global Work-Nonwork Balance</i> .....	56
Essay 1: <i>Table 8 Outcomes of Component Work-Nonwork Balance</i> .....	60
Essay 2: <i>Table 1 Means, Standard Deviations, Internal Consistencies (Cronbach's Alpha), and Intercorrelations</i> .....	116
Essay 2: <i>Table 2 Direct Effects on Negative Work Reflection</i> .....	120
Essay 2: <i>Table 3 Direct Effects on Negative Affect</i> .....	121
Essay 2: <i>Table 4 Direct Effects on Satisfaction with Work-Family Balance</i> .....	122
Essay 2: <i>Table 5 Indirect Effects on Satisfaction with Work-Family Balance</i> .....	124
Essay 2: <i>Table 6 Multilevel Moderating Effects of Work Task and Relational Crafting</i> .....	127
Essay 3: <i>Table 1 Means, Standard Deviations, Internal Consistencies (Cronbach's Alpha), and Intercorrelations</i> .....	180
Essay 3: <i>Table 2 Direct Effects on Negative Family Reflection</i> .....	183
Essay 3: <i>Table 3 Direct Effects on Negative Affect</i> .....	184
Essay 3: <i>Table 4 Direct Effects on Satisfaction with Work-Family Balance</i> .....	185

## **Essay 1: Work-Nonwork Balance: A Review and Future Agenda**

As a result of social structural and economic changes, such as growing numbers of dual-earner couples, single parents, and female employees (Barnett, 1998; Kramer & Chung, 2015), individuals are continuing to struggle to balance their work and nonwork roles (Edmondson & Detert, 2005). Such struggles have been associated with decreased performance (Kim, 2014), role commitment (Omar, 2013), role satisfaction (e.g., Grawitch, Maloney, Barber, & Mooshegian, 2013), organizational retention (e.g., Kinman & Jones, 2008; Smith, 2005), and psychological and physiological well-being (e.g., Grzywacz, Butler, & Almeida 2008; Haar, 2013; Vanderpool & Way, 2013). Although we have witnessed many advances in the study of work-nonwork balance in the past 20 years (e.g., Casper, Hauw, & Wayne, 2013; O'Driscoll, Brough, & Biggs, 2007), other related aspects of work-nonwork interface, such as work-family conflict (i.e., the extent to which individuals find it difficult to participate in work and family roles because of incompatible demands; Greenhaus & Beutell, 1985) and work-family facilitation (i.e., the extent to which participation in one role increases the functioning of the other role; Wayne, Grzywacz, Carlson, & Kacmar, 2007), have received relatively more attention (Butler, Bass, & Grzywacz, 2008; Chang, McDonald, & Burton, 2010) than work-nonwork balance. Therefore, a growing need exists to refocus our efforts on the study of work-nonwork balance and to theoretically and empirically enrich our understanding of this topic.

Existing work-nonwork balance studies have identified various conceptual and operational definitions (Kalliath & Brouth, 2008; O'Driscoll, Brough, & Biggs, 2010). For example, a recent article categorized work-family balance as balance satisfaction, balance effectiveness, additive spillover, and multiplicative spillover (Wayne, Butts, Casper, & Allen,

2016). In order to systematically review the wide variety of work-nonwork balance definitions and identify the dominant themes across these definitions, I will first classify these definitions into two categories, i.e., global and component approaches (Casper et al., 2013), which offer a parsimonious approach to addressing a wide range of work-nonwork balance research. In the global approach, researchers typically define work-nonwork balance as satisfaction (e.g., Valcour, 2007), effectiveness (e.g., Hill, 2001), absence of conflict (e.g., Kinman & Jones, 2008), role accomplishment (e.g., Grzywacz & Carlson, 2007), ‘fit’ (Voydanoff, 2005), full engagement (Marks & MacDermid, 1996), and satisfaction and effectiveness (e.g., Greenhaus & Allen, 2012). In the component approach, scholars equate work-nonwork balance with the absence of work-nonwork conflict and the simultaneous presence of work-nonwork facilitation (e.g., Frone, 2003; Grzywacz, 2000) as a combination of equal levels of satisfaction and engagement with work and family roles (Greenhaus, Collins, & Shaw, 2003) and other varied combinations (e.g., Clark, 2001).

In addition to treating work-nonwork balance in a component or global manner, another trend in the literature is to view work-nonwork balance as a broad umbrella that encompasses varied facets of work-nonwork linking mechanisms, such as work-family conflict, work-family facilitation, and work-family enrichment (e.g., Liu & Wang, 2011). As will be described in this essay, the theoretical understanding of work-nonwork balance does not yet offer conclusive answers to the question of whether work-nonwork balance is “an achievable goal or a pipe dream” (Spinks, 2004, p. 4) or provide verification to the frequent theme in popular press stating that “work-life balance is dead” (e.g., Friedman, Dec 2014). Given these varied approaches to the study of work-nonwork balance, we lack a comprehensive understanding of what the determinants and consequences of work-nonwork balance are. In order to begin to address this

gap, we need to know whether the concept of work-nonwork balance is useful to better understand people's work-nonwork experiences or whether this concept is so vague that it should be redefined.

In this essay, I will attempt to review and compare different approaches to conceptualizing work-nonwork balance. In the first section, I will review the definitions and theories that provide a complete picture of how work-nonwork balance research evolved between 1989 (i.e., the year in which the first work-family balance study emerged) and 2014. Then, I will review the methodology used within these studies, including samples, research designs, and analytic approaches. After that, I will summarize the research on the antecedents and outcomes of work-nonwork balance. In the final section, I will offer several concluding remarks and provide an agenda for future research based on the review of the literature.

Before reviewing work-nonwork studies, I need to clarify which term (i.e., work-family balance, work-life balance, or work-nonwork balance) I will focus on in this review. Although the term 'work-family balance' dominates the existing research, scholars have criticized this term as it oversimplifies people's work and nonwork roles and fails to adequately take into consideration employees' multiple life domains and role pursuits (e.g., community, religion, and leisure) (Kossek, Valcour, & Pamela, 2014). Work-life balance is increasingly attractive because this term considers not only the family role, but also personal life roles (Keeney, 2013). However, this term is ill-fitting as well as 'life' itself may include 'work' (Kossek, Batles, & Matthews, 2011). Therefore, I use the term 'work-nonwork balance' in this review as it is the most appropriate term as it includes both work-family and work-life balance research.

## **Selection of Articles**

I searched for and selected peer-reviewed journal articles and book chapters from PsychInfo and ABI/INFORM. These articles included one of the following terms: work-family balance, work-life balance, work/non-work balance, and work-self balance. I selected empirical articles but not conceptual or theoretical articles for this review. Further, I excluded articles that equated work-nonwork balance with linking mechanisms, such as work-family conflict and facilitation/enrichment/positive spillover. Although work-nonwork balance could be widely construed to include varied aspects of work-nonwork interface, such as work-family conflict and work-family enrichment, I chose to only consider those studies in which work-nonwork balance was explicitly defined or measured. In the end, I selected 94 articles published in 50 journals and books in an array of disciplines, including organizational behavior, sociology, family studies, and communication. Of the 94 articles, 74 were based on quantitative studies and 20 were based on qualitative studies.

## **Definitions**

Work-nonwork balance research first emerged as a focus of academic inquiry in the late 20<sup>th</sup> century. The conceptualizations of this construct have been diverse and evolved over a period of time, and can be broadly categorized into two approaches: global and component. The global approach includes the definitions that view work-nonwork balance as a holistic construct, while the component approach indicates that work-nonwork balance should be defined by



different components, such as the coexistence of work-nonwork conflict and enrichment. I will review each type of approach below (see Table 1<sup>1</sup>).

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<sup>1</sup> Although I review work-nonwork balance based on the two general categories, I present the evolution of each definition in a chronological manner in Table 1 in order to capture any discrepant developments during the periods studied.

Table 1 Definitions of Work-Nonwork Balance

Work-Nonwork Balance Definitions			
Global Approach	1989-1999	2000-2009	2010-2014
Satisfaction: Subjective assessment of being satisfied with the balance among work and nonwork roles	White (1999)	Beham & Drobnicˇ, (2010); Higgins et al. (2000); Kirchmeyer (2000); Saltzstein, Ting, & Saltzstein (2002); Valcour (2007)	Abendroth & Dulk (2011); Haar (2013); Grawitch et al. (2013); McNamara et al. (2013); Michel et al. (2014); Syrek et al. (2013)
Effectiveness: The ability of balancing work and nonwork demands		Butler (2009); Clutterbuck (2003); Hill et al. (2001)	Noor (2011)
Absence of work-nonwork conflict		Greenblatt, (2002); Duxbury & Higgins (2001); Bret & Stroh (2003); Jang (2009); Kinman & Jones (2008); Umene-Nakano et al. (2010); Guest (2002); Dundas (2008)	Kim (2014); Umene-Nakano et al. (2013); Waumsley, et al. (2010)
Fit: a global assessment that work resources meet family demands, and family resources meet work demands such that participation is effective in both domains / finding the allocation of time and energy that fits your values and needs	Kofodimos (1993); Milkie & Petola (1999)	Voydanoff (2005); Butler et al. (2009)	

Table 1 Definitions of Work-Nonwork Balance (Cont'd)

<i>Component Approach</i>	<i>1989-1999</i>	<i>2000-2009</i>	<i>2010-2014</i>
Full engagement: The tendency of fully engagement in the performance of every role in one's total role system	Marks & MacDermid (1996)	Marks et al. (2001)	Haar et al. (2014); Lee et al. (2014)
Role accomplishment: Accomplishment of role-related expectations that are negotiated and shared between an individual and his or her role-related partners in the work and family domains		Carlson et al. (2009); Grzywacz & Carlson (2007)	Ferguson et al. (2012)
Satisfaction and effectiveness: An overall appraisal of the extent to which individuals' effectiveness and satisfaction in work and family roles are consistent with their life values at a given point in time			Allen & Kiburz (2012); Direnzo et al. (2015); Greenhaus et al. (2012); Greenhaus & Allen (2011); Odle-Dusseau et al. (2012)
Components: the absence of work-family conflict and the presence of work-family facilitation	Tiedje et al., (1990)	Aryee et al.(2005); Bass et al. (2010); Frone (2003); Grzywacz et al., (2000); Hayman (2005); Grzywacz et al. (2009); Sanz-Vergel et al. (2010)	Carlson et al. (2013); Rantanen et al. (2013); Siu (2013)
Equality: The extent to which an individual is equally engaged in-and equally satisfied with-his or her work role and family role in terms of time equality, involvement equality and satisfaction equality		Greenhaus (2003);Virick, Lilly, & Casper (2007); Visser & William (2006)	
Satisfaction and good functioning across multiple roles		Clark (2000)	Vanderpool & Way (2013)

## **Global Approaches**

*Satisfaction with work-nonwork balance.* The first definition is derived from one's subjective satisfaction with work-nonwork balance, which represents the extent to which individuals feel satisfied with managing their work and nonwork roles. Early research has emphasized the importance of understanding the subjective assessment of satisfaction with work-family balance (e.g., White, 1999), but this perspective did not receive much attention until 2000. For example, Higgins, Duxbury, and Johnson (2000) defined work-family balance as "a perceptual phenomenon characterized by a sense of having achieved a satisfactory resolution of the multiple demands of work and family domains" (p. 19). Valcour (2007) later proposed satisfaction with work and family balance as an individual's cognitive appraisal and affective evaluation of whether he or she is successful in managing work and family demands. As emphasized by Valcour (2007), satisfaction with work and family balance globally and unidirectionally involves evaluation of the contentment that is dependent upon an assessment of how successfully one can handle various life demands. Theoretically, work-family balance is different from work-family conflict and facilitation in that it illustrates how stress or resources from one role will benefit or harm the other role. Many studies have utilized Valcour's (2007) definition and explored the subjective and global features of work-family balance (e.g., Abendroth & Dulk, 2011; Beham et al., 2009; Grawitch et al., 2013; Haar, 2014; Maloney, Barber, & Mooshegian, 2013; Syrek, Apostel, & Antoni, 2013).

*Effectiveness of work-nonwork balance.* Some scholars have defined work-nonwork balance using an effectiveness perspective. Effectiveness of work-nonwork balance refers to the

extent to which individuals can manage work and family demands. For example, Hill, Hawkins, Ferris, and Weitzman (2001) defined work-family balance as the “degree to which an individual is able to simultaneously balance the temporal, emotional, and behavioral demands of both paid work and family responsibilities” (p. 49). Clutterbuck (2003) stated that work-life balance is “a state where an individual manages a real or potential conflict between different demands on his or her time and energy in a way that satisfies his or her needs for well-being and self-fulfillment” (p. 8).

*Absence of conflict.* Some scholars have portrayed work-nonwork balance as the absence of conflict. For example, Duxbury and Higgins (2001) equated imbalance between work and family roles as the presence of work-family conflict. Although this definition of work-nonwork balance is well-cited (e.g., Hayman, 2005; Jang, 2009; Umene-Nakano et al., 2013), this perspective is questionable as it inadequately equates a global state of balancing work and family roles (i.e., work-nonwork balance) with a cross-domain negative transferring mechanism (i.e., work-nonwork conflict) (Valcour, 2007).

*Role accomplishment of work-nonwork balance.* The emergence of a role accomplishment perspective of work-nonwork balance derives from the criticism of subjective work-nonwork balance. Specifically, some scholars have criticized the definitions of subjective assessment (i.e., satisfaction) because it overemphasizes the psychological facet of work-family balance and isolates individuals’ work and family-related behaviors from their social surroundings (i.e., the organization and family). In addressing this issue, Grzywacz and Carlson (2007) presented a role accomplishment perspective and defined work-family balance as the “accomplishment of role-related expectations that are negotiated and shared between an individual and his or her role-related partners in the work and family domains” (p. 458). The two

definitions (i.e., satisfaction and role accomplishment) are different as satisfaction with work-family balance demonstrates subjective feelings about balancing work and family roles, while the role expectation approach posits work-family balance with respect to the fulfillment of expectations that lie outside of the individual. Fundamentally, role accomplishment and satisfaction with work-nonwork balance are not competitive. Instead, they are complementary in regard to revealing both the internal and external facets of work-nonwork balance (Carlson, Grzywacz, & Zivnuska, 2009; Ferguson, Carlson, Zivnuska, & Whitten, 2012; Grzywacz & Carlson, 2007). It is also notable that commonality exists between role accomplishment and effectiveness of work-nonwork balance. Specifically, both perspectives theorize work-nonwork balance as successfully managing role demands and meeting role expectations.

*Work-nonwork balance as 'fit'.* Another stream emphasizes a the 'fit' perspective of work-nonwork balance, which states that work-nonwork balance is a result of the resource allocation of work and nonwork that fits individuals' identities, values, and goals. For example, Bielby and Bielby (1989) initially explored the idea that men and women in dual-earner households may differ in regard to how they engage with their work and family commitments and balance their work and family identities. In addition, Kofodimos (1993) defined work-family balance as "finding the allocation of time and energy that fits your values and needs, making conscious choices about how to structure your life, and integrating inner needs and outer demands and involves honoring and living by your deepest personal qualities, values ,and goals" (p. 8). Milkie and Peltola (1999) also focused on the subjective feelings of work-family balance and defined balance as "an accord between beliefs about the proper balance and one's actual experience of the distribution of paid and unpaid work and quality of relations among role partners" (p. 477). McLean and Lindorff (2000) defined work-family balance as "a state in which a range of needs

is met by allocating time to both work/family roles according to a combination of individual priorities and demands” (p. 1). Voydanoff (2005) defined work-family balance as “a global assessment that work resources meet family demands and family resources meet work demands such that participation is effective in both domains” (p. 825). It is evident that viewing work-nonwork balance as ‘fit’ elicits two key aspects of work-nonwork balance. First, work-nonwork balance is not substantially the same across individuals. Instead, it depends upon different personal values and goals (Reiter, 2007). Second, work-nonwork balance is not only about whether the inner needs are met, but also about whether the outer demands are integrated successfully in line with the intrinsic values.

*Work-nonwork balance as full engagement in and across roles.* In reacting to Goode’s (1960) argument in role strain theory, which emphasizes the systemic framework of multiple roles, Marks and MacDermid (1996) proposed role balance theory to explain how people create a nonhierarchical pattern of self-organization to achieve their life balance. Based on the assumption from Mead (1964) that individuals are not involved in a hierarchical identity system, role balance is defined as “the tendency to become fully engaged in the performance of every role in one’s total role system, to approach every typical role and role partner with an attitude of attentiveness and care” (p. 421). Although role balance may reflect both positive and negative aspects (i.e., full engagement and full disengagement in every role), only positive role balance was focused on in Marks and MacDermid’s (1996) study. In addition, Marks and MacDermid (1996) implied that, while seeking full and meaningful experiences across different roles, individuals tend to achieve an evenhanded alertness across roles, indicating a view of equal engagement across roles (Greenhaus et al., 2003; Lee, Zvonkovic, & Crawford, 2014).

*Satisfaction and effectiveness of work-nonwork balance.* Several new definitions of work-nonwork balance have emerged in recent years and the one most often cited was proposed by Greenhaus and Allen (2010), which states that work-family balance is “an overall appraisal of the extent to which individuals' effectiveness and satisfaction in work and family roles are consistent with their life values at a given point in time” (p. 174). Drawing on the fit approach, this definition emphasizes a fit or consistency among one's life priorities (i.e., work, family, or both), personal satisfaction, and effectiveness. That is, one who values his work, performs well in the work role, and is satisfied with the work role will feel balanced. Fundamentally, this definition integrates multiple streams and has been increasingly drawn upon in recent work-nonwork balance studies (e.g., Drenzo, Greenhaus, & Weer, 2015).

### **Component Approaches**

Despite the proliferation of global approaches, some scholars have alternatively portrayed work-nonwork balance as a combination of work-nonwork conflict and work-nonwork enhancement. For example, guided by role conflict and role enhancement perspectives, Tiedje, Wortman, Downey, Emmons, Biernat, and Lang (1990) initially articulated a role perception typology model in terms of work-family conflict and work-family enhancement and framed work-family balance as a combination of work-family conflict and enhancement. Their study indicated that work-family balance for working women was anchored by high work-family enhancement and low work-family conflict. Several scholars have utilized similar theories within their studies. For example, Frone (2003) proposed a fourfold taxonomy of work-family balance that included work-family conflict and work-family facilitation. Similar to work-family enhancement, work-family facilitation is considered to be a positive interface between work and family in that “participation at work (home) is made easier by virtue of the experiences, skills,



and opportunities gained or developed at home (work)” (Frone, 2003, p. 145). Therefore, work-family balance is defined as the absence of work-family conflict and the presence of facilitation (Frone, 2003).

The fourfold taxonomy of work-family balance encompasses a comprehensive understanding of mutually constraining and reinforcing interfaces between work and family roles (Aryee, 2005). A similar perspective, presented by Grzywacz, Butler, and Almeida (2008), stated that work-family balance is “the degree to which both work and family mutually benefit from the interrelationship created by the sharing of an individual member” (p. 196). Although extant research has provided empirical evidence to evaluate the construct validity of this component approach of work-family balance (e.g., Aryee, Srinivas, & Tan 2005; Bass & Bhargava, 2010; Butler, Bass, & Grzywacz, 2009; Grzywacz, Butler, & Almeida, 2008; Grzywacz & Marks, 2000; Hayman, 2005; Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010), concerns about this theoretical perspective still exist because work-family conflict and facilitation/enrichment represent the work and family transfer mechanisms that describe the impact of one role on another role (Edward & Rothbard, 2000; Valcour, 2007), while work-family balance indicates an individual’s overall sense of balancing work and family demands (Butler et al., 2009; Greenhaus et al., 2003). In addition, it remains unclear whether and how the four components (i.e., work-to-family conflict/facilitation and family-to-work conflict/facilitation) could reach an optimal level indicative of work-family balance.

Other scholars have presented different perspectives on the component approach of work-nonwork balance. For example, Clark (2000) defined work-family balance as “satisfaction and good functioning at work and at home with a minimum of role conflict” (p. 349). Within this definition, Clark (2000) focused on two dimensions: subjective satisfaction in regard to

balancing work and family and the absence of work-family conflict. However, Clark (2000) failed to provide comprehensive arguments to identify why these two dimensions represent work-family balance.

Another component-based approach related to work-nonwork balance was proposed by Greenhaus and his colleagues (2003). Drawing on the original meaning of balance, which emphasizes the equality of engagement and satisfaction within and across roles, Greenhaus and his colleagues (2003) defined work-family balance as “the extent to which an individual is equally engaged in - and equally satisfied with - his or her work role and family role” (p. 513). Work-family balance within this stream includes three components: involvement, time, and satisfaction. The definition relies upon the assumption that people can achieve work-family balance by investing equal time and involvement in and experiencing equal satisfaction from multiple roles regardless of their personal values (Greenhaus, 2003). In other words, the equality of work-family balance is an objective division of personal resources that is not influenced by individual and situational impacts (Reiter, 2007). Criticism from scholars has indicated that work-family balance is not a perfect 50/50 division of work and family role participation and, instead, should reflect an individual’s orientation across different life roles (Kalliath & Brough, 2008; Kossek et al., 2013). The last definition within the component approach to work-nonwork balance is from Nam (2014) and suggests that work-life balance is comprised of work-life integration, autonomy, work-family interference, and work-family segmentation. However, this definition is problematic as it attempts to define work-nonwork balance using elements (i.e., autonomy and segmentation) that do not conceptually represent work-nonwork balance.

## **Theories**

Scholars have proposed various theories to explain the characteristics of work-nonwork balance. In this review, I will describe five groups of main theories that are applied in work-nonwork balance studies: role-based theories, resource-based theories, border theory, fit theory, and developmental theories.

### **Role-Based Theories**

Role-based theories include role conflict theory, role expansion perspective, role identity theory, role balance theory, spillover theory, and Job Demands-Resources (JD-R) model. The most influential one in this group is role theory, which includes the role conflict and expansion perspectives. Based on the resource drain perspective (Edwards & Rothbard, 2000), role conflict theory assumes that work and family are incompatible (Zedeck & Mosier, 1990). As individuals have to allocate limited and fixed resources to meet the requirements of multiple roles in order to meet the expectations in one role, they must trade off fulfilling expectations in another role. As a consequence, conflict emerges between work and family when the competing demands of work and family are not simultaneously met.

In contrast, the role expansion perspective is based on the assumption that work and family roles are not necessarily exclusive (Marks, 1977; Sieber, 1974). Instead, involvement in multiple roles may offer more benefits than costs and, as such, generate gratification. Role conflict theory and the role expansion perspective have widely been used in work-family research (e.g., Allen & Kiburz, 2012; Grawitch, Maloney, Barber, & Mooshegian, 2013; McNamara, Pitt-Catsoupes, Matz-Costa, Brown, & Valcour, 2013; Vanderpool & Way, 2013).

Specifically, these two role theories have served as the theoretical foundation for most of the component approaches to work-family balance (e.g., Tiedje et al., 1990).

Another theory under the umbrella of role-based theories is role identity theory (Stryker, 1968), which posits that individuals tend to define the self by means of the roles in which they are involved. A critical assumption of this theory is the salience hierarchy (Stryker, 1980). That is, individuals organize multiple roles hierarchically based on the extent to which one role is more salient and meaningful to the self over others (Callero, 1985). Although few studies have directly defined work-family balance through the lens of identity theory, scholars have implied that individuals commit to roles that are consistent with their values and beliefs and fulfill their self-identities (Bielby & Bielby, 1989; Kofodimos, 1993).

In contrast, Marks and MacDermid (1996) developed role balance theory to challenge role identity theory. Unlike role identity theory, which assumes the hierarchical ordering of roles for achieving effective role-related performance, role balance theory proposes that individuals manage their complete systems of role responsibilities in a nonhierarchical approach. Researchers have further argued that balancing role commitments provides individuals with stronger, more integrated senses of self (and presumably self-worth) because it allows for comprehensive self-expansion, while hierarchically organized role-sets require contractions of the self in order to prioritize roles (Haar, 2014; Lee et al., 2014; Marks, Huston, Johnson, & MacDermid, 2001). Role balance theory has been well-developed in work-nonwork balance research. For example, Greenhaus and his colleagues (2003) used role balance theory to present their equality-based definition of work-family balance and investigate the antecedents of work-family balance in a sample of public accountants. Similarly, Marks, Huston, Johnson, and MacDermid (2001) used role balance theory to examine role balance among white, married

couples. Keene and Qadagno (2004) also used role balance theory to explore and discuss how gender influenced work-family balance.

Spillover theory is another role-based theory used in work-nonwork balance research. This theory focuses on the effects of work and family on one another to produce similarities in terms of work and family affect (i.e., mood and satisfaction), values (i.e., the importance ascribed to work and family pursuits), skills, and other behaviors between the two domains (Edwards & Rothbard, 2000). Some work-nonwork balance studies have used spillover theory as their theoretical foundation. For example, Bell, Rajendran, and Theiler (2012) used spillover theory to illustrate the relationships among job pressure, work-life conflict, and work-life balance. Researchers have also applied the JD-R model to explain work-nonwork balance. This model explains that strains emerge as a response to imbalances between demands and resources of job roles (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Based on this perspective, Syrek, Apostel, and Antoni (2013) examined and found the negative association between time pressure and work-life balance.

### **Resource-Based Theories**

In addition to role-based theories, a large number of studies have applied resource-based theories in order to understand work-nonwork balance. Among these theories, the most influential one is Conservation of Resources (COR) theory (Hobfoll, 1989; Hobfoll & Shirom, 2001), which suggests that individuals seek to acquire, maintain, and protect resources that have symbolic value for how they define themselves (Hobfoll, 1989). These resources include objects, conditions, personal resources (e.g., key skills and personal traits), and energies. One tenet of COR theory is that, with all things being equal, stress occurs when resources are insufficient,

threatened, or lost (Hobfoll & Freedy, 1993). Another main tenet is motivational in nature and emphasizes the proactive form of resources that individuals invest in to protect against resource loss, recover from losses, and gain valuable resources (Hobfoll & Shirom, 2001). For instance, when people work hard, they may invest their time and energies in order to gain other more meaningful resources, such as higher pay and enhanced reputation (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014).

## **Border Theory**

Border theory stems from boundary theory, which is a general cognitive theory of social classification that focuses on people's role transitions (Ashforth, Kreiner, & Fugate, 2000; Nippert-Eng, 1996). Aligned with boundary theory, Clark (2000; 2001) proposed border theory to specifically focus on the process of border management between work and family domains. Border theory posits that people manage and negotiate their work and family spheres and the borders between them to attain balance. Further, borders can be characterized in terms of their permeability and flexibility. Permeability represents the degree to which the elements from one domain are readily found in the other domain (Clark, 2002), while flexibility represents the degree to which a border may contract or expand based on the demands of one domain or another (Hall & Richter, 1988). Technically, we can interpret borders in terms of temporal, physical, psychological, emotional, and behavioral aspects (Nippert-Eng, 1996). When the borders of the work and family domains are permeable and flexible (i.e., weak borders), an integration exists between work and family roles. When such borders are nonporous and inflexible (i.e., strong borders), work and family roles are segmented. Work and family domains could be mutually similar or different. Similar work and family domains share common rules, thought patterns, and behaviors, while different work and family domains have separated norms,

exceptions, and acceptable behaviors. Clark (2000) proposed that weak borders between similar work and family domains will increase work-family balance; while strong borders between different work and family domains will increase work-family balance. Considering that the permeability could be asymmetric (i.e., the border is stronger to protect one domain, but not the other), individuals' identification with certain domains will determine their level of work-family balance (Vanderpool & Way, 2013). In addition, whether one is a central participant in both domains and whether one's domain members have their awareness of the other domain is related to the focal individual's work-family balance.

### **Fit Theory**

Fit theory has also been applied in order to understand work-family balance (Kofosmio, 1993; Voydanoff, 2005). Specifically, personal-organization fit theory suggests that a lack of fit or congruence between one person and his or her environment will raise the person's stress levels (e.g., Edwards, 1998). Two components are included in person-environment fit: needs-supplies and demands-abilities. The needs-supplies component suggests that fit will occur when individuals' biological and psychological requirements are fulfilled by the intrinsic and extrinsic resources or rewards provided by organizations. The demands-abilities component suggests that fit will be attained when matches exist between organization- and job-related requirements, expectations, and norms with individuals' skills, resources, training, and aptitude. For example, jobs vary in terms of different cognitive and social skills in different organizations (Caplan, 1987). Demands-abilities fit exists only when individuals' abilities meet the job skills that organizations expect. Drawing on person-organization fit theory, Voydanoff (2005) proposed a conceptual model to explain the theoretical links among within-domain and cross-domain demands and resources, work-family fit, work-family balance, and role performance.

## **Developmental Theories**

Some scholars have adopted a life-course, developmental perspective to work-family balance. For example, Bass and Grzywacz (2010) applied the ecological person-process-context model (Bronfenbrenner & Ceci, 1994) to their study of work-family balance. They defined work-family balance in terms of the presence of both work-family conflict and enrichment, and their model suggested that the experience of work-family conflict and enrichment is indicative of successful adult development for midlife individuals. In other words, since individuals in one life role are involved in various person-environment interactions, the ability to manage work-family demands and experience low work-family conflict and high work-family enrichment is indicative of individual development (Barnett, 1998).

Similarly, human ecology theory is also applied to explain work-life balance as this theory proposes that the interactions of humans with their environments can be viewed as a system and that all the biological, social, and physical aspects of human beings are contingent with the environments. Using this theory and reasoning, Duncan and Pettigrew (2012) explored and found strongly significant relationships among various work arrangements and work-family balance. They also found that these relationships differed between women and men. Women reported higher work-family balance than their men counterparts when they perceived some control over their work schedule. Unexpectedly, men experienced less work-family balance if they were involved in flexible programs, such as self-employment and shift work.

In addition, a life cycle perspective has been applied to the study of work-family balance. According to this view, age is a marker of life circumstance (e.g., work and family stages). As individuals grow older, their experiences of work-family balance are expected to vary across



their different work and family stages. As individuals age, they experience different development stages that affect their employment priorities (Giele & Elder, 1998; Veiga, 1983). Applying this perspective, Darcy, McCarthy, Hill, and Grady (2012) conducted a study to examine how job involvement, management support, and career consequences influenced work-life balance across four different career life stages (i.e., early career stage, developing career stage, consolidating career stage, and pre-retirement career stage). Although job involvement was negatively related to work-life balance regardless of career stage, the study found that perceived managerial support was more likely to increase work-life balance for employees in the developing and pre-retirement career stages, but less likely to contribute to work-life balance when employees were in the early career and consolidating career stages.

In addition to the main theories described above, some scholars have also used a positive psychology lens and applied broaden-and-build theory and self-regulation framework to work-family balance research. Broaden-and-build theory proposes that positive emotions broaden one's awareness and encourage novel and exploratory thoughts and actions (Fredrickson, 2001). Carlson, Kacmar, Grzywacz, Tepper, and Whitten (2013) applied broaden-and-build theory and examined how positive affect generated in a specific domain influenced work-family balance and organizational citizenship behavior. Self-regulation theory suggests that individuals have the ability to optimize their long-term best interests, which are consistent with their deepest values (Carver & Scheier, 1981). In their study, Allen and Kiburz (2012) discussed the association between mindfulness and work-family balance by incorporating the self-regulation perspective.

## **Methodology**

In this section, I will provide a review of the methodology used in existing work-nonwork balance studies. My focus will be on quantitative studies and will not include research that used qualitative approaches to investigate work-nonwork balance. As Casper and her colleagues (2007) noted, understanding the strengths and gaps within work-family research is important in regard to advancing our knowledge in this field. Although there are several reviews of work-nonwork research, my review of the methodology used in work-nonwork balance research makes two key contributions. First, compared to other research reviews of work-nonwork relationships, the construct of work-nonwork balance and the methodologies used to examine it have not received enough attention. For example, Casper et al. (2007) did not include the construct of work-family or work-life balance in their review. Second, the research on work-nonwork balance has experienced a tremendous growth in recent years, which means that the time is ripe for us to conduct an updated and comprehensive review of the literature (Chang et al., 2010). In the subsequent sections, I will offer a critical review of work-nonwork balance methodology, which includes the construct measures, sample characteristics, research design, and analytic approaches used.

## **Measures**

Given the elusive and wide-ranging definitions of work-nonwork balance, it is not surprising that measures developed for accessing work-nonwork balance vary as well. I will review different measures as they fall into the global and component approaches (see Table 2). Single-item measures are commonly used for assessing the work-nonwork balance construct that falls under the global approach to work-nonwork balance (e.g., Duncan & Pettigrew, 2012). For

example, White (1999) measured work-family balance by using a single item that asked participants “Are you satisfied with the balance between your job or main activity and family and home life?” Similarly, Milkie and Peltola (1999) used a single question “How successful do you feel in balancing your paid work and family life?” in their research on accessing work-nonwork balance. Another example of a single item measure is to be found in a study by Marks and MacDermid (1996) who asked their participants to rate their level of work-nonwork balance using a single item, “Nowadays, I seem to enjoy every part of my life equally well.”

Table 2 Measures of Work-Nonwork Balance

<b>Work-Family Balance Measures</b>				
<i>Global Approach</i>	<i>Sample Items</i>	<i>1989-1999</i>	<i>2000-2009</i>	<i>2010-2014</i>
Satisfaction (Single item)	Are you satisfied with the balance between your job or main activity and family and home life? (White,1999; Duncan & Pettigrew, 2012)	White (1999)	Kirchmeyer (2000)	Duncan & Pettigrew (2012)
	5-item scale: "Are you satisfied the way you divide your time between work and personal or family life?" (Valcour,2007)		Beham & Drobnic (2010); Craig & Sawrikar (2008); Craig & Powell (2011); Valcour (2007)	Abendroth & Dulk (2011); Beham et al. (2012); Omar (2013); Grawitch et al. (2013); McNamara et al. (2013); Michel et al. (2014); Vanderpool & Way (2013);
Satisfaction (Multiple items)	3-item scale: "I am satisfied with my work-life balance, enjoying both roles." (Haar,2014)			Haar et al. (2014)
	5-item scale: "I am satisfied with the balance between my work and private life/I am meeting the requirements of both my work and my private life/It is difficult for me to balance my work and private life." (Syrek et al.,2011)			Syrek et al. (2011; 2013)

Table 2 Measures of Work-Nonwork Balance (Cont'd)

<i>Global Approach</i>	<i>Sample Items</i>	<i>1989-1999</i>	<i>2000-2009</i>	<i>2010-2014</i>
Success (Single item)	How successful do you feel in balancing your paid work and family life? (Mikie & Petola,1999; Keene & Qadagno,2004; Butler et al.,2009)	Mikie & Petola (1999)	Butler et al. (2009); Keene & Qadagno (2004)	
Effectiveness (Single item)	Single item scale: "Is it difficult to combine your job with the private life or family life you want to live" (Kinman & Jones, 2008) 5-item scale: "How easy or difficult is it for you to balance the demand of your work and your personal and family life?" (Hill et al.,2001)		Kinman & Jones (2008)	
Effectiveness (Multiple items)	4-item scale: "I maintain a good balance between work and other aspects of my life." (Parkes & Langford,2008) 5-item scale: "I currently have a good balance between the time I spend at work and the time I have available for non-work activities." (Brough et al.,2014) "Are you experiencing difficulty with your work-life balance?" (Umene-Nakano et al.,2013) Single item scale: "How well do your working hours fit in your family or social commitments?" (Lunau et al., 2013)		Hill et al. (2001, 2004); Lyness & Kropf (2005); Virick et al. (2007)  Parkes & Langford (2008)	Bell et al. (2012); Olsen & Dahl (2010); Yulie et al. (2012)  Brough et al. (2014); Devi & Rani (2012)  Lunau et al. (2013)

Table 2 Measures of Work-Nonwork Balance (Cont'd)

<i>Global Approach</i>	<i>Sample Items</i>	<i>1989-1999</i>	<i>2000-2009</i>	<i>2010-2014</i>
Fit (Multiple items)	8-item scale: "There is a good fit between my personal life and work life." (Smith,2005; Wu et al.,2013)		Smith (2005)	Wu et al. (2013)
Absence of work-family conflict/Imbalance	Work-family conflict (Netemeyer et al., 2006; Jang, 2009)		Jang (2009); Kinman & Jones (2008)	Waumsley et al. (2010)
	"I often work late or at weekends to deal with paperwork without interruptions." (Daniel & McCarraher,2000)			Kim (2014)
Role expectation	6-item scale: "I do a good job of meeting the role expectations of critical people in my work and family life. "		Grzywacz & Carlson (2007); Carlson et al. (2009)	Ferguson et al. (2013)

Table 2 Measures of Work-Nonwork Balance (Cont'd)

<i>Global Approach</i>	<i>Sample Items</i>	<i>1989-1999</i>	<i>2000-2009</i>	<i>2010-2014</i>
Satisfaction and effectiveness	5-item scale: "I am able to balance the demands of my work and the demands of my family." (Greenhaus et al.,2012; Allen et al.,2010)			Allen & Kiburz (2012); Drenzo et al. (2015); Greenhaus et al., (2012); Odle-Dusseau et al. (2012); Russo et al. (2015)
Satisfaction and Effectiveness (Multiple items)	3-item scale: "I manage to balance the demands of my work and personal/family life well". (Haar et al.,2014)			Haar (2014); Haar et al. (2014)
Full engagement	8-item scale: "Nowadays, I seem to enjoy every part of my life equally well." (Marks & MacDermid,1996)		Marks et al. (2001)	Haar et al. (2014); Lee et al. (2014)

Table 2 Measures of Work-Nonwork Balance (Cont'd)

<i>Component Approach</i>	<i>Sample Items</i>	<i>1989-1999</i>	<i>2000-2009</i>	<i>2010-2014</i>
Component of WFC,FWC, WFF, and FWF	16-item scale for measuring 1) work-to-family conflict, 2) family-to-work conflict, 3) work-to-family enhancement/facilitation/enrichment, and 4)family-to-work enhancement/facilitation/enrichment (Grzywacz & Marks, 2000; Tiedje et al., 1990)	Tiedje et al. (1990)	Aryee (2005); Grzywacz et al. (2000,2008); Lu et al. (2009)	Bekker et al. (2010); Carlson et al. (2013); Patel et al. (2012); Rantanen et al. (2013); Siu (2013)
Component of WFC, FWC and WFE	15-item scale for measuring 1) work interfere with life; 2) family interfere with life and 3) work life enhancement (Fisher-McAuley et al., 2001)		Fisher-McAuley et al. (2001; 2003; 2009); Haymen (2005; 2009)	Carmon et al. (2013)
Component of global WFC and WFF	3-item scale for measuring global WFC and 2 item scale for measuring WFF (Bellavia & Frone, 2005; Hill, 2005; Voydanoff, 2004)			Bass & Grzywacz (2010)
	8-item scale for measuring global WFC and 5-item scale for measuring global WFF (Geurts et al., 2005)			Sanz-vergel et al. (2010)



Table 2 Measures of Work-Nonwork Balance (Cont'd)

<i><b>Component Approach</b></i>	<i><b>Sample Items</b></i>	<i><b>1989-1999</b></i>	<i><b>2000-2009</b></i>	<i><b>2010-2014</b></i>
Equality	1) Equal time is devolved to work and family; 2) equal involvements put into work and family; 3) people are equally satisfied with work and family.		Greenhaus et al. (2003)	
Satisfaction and good functioning across multiple roles	Five scales for measuring 1) work satisfaction; 2) home satisfaction; 3) family cohesion; 4) employee citizenship and 5) role conflict. (Clark, 2000)		Clark (2000)	Darcy et al. (2012)

However, scholars have criticized single item measures by stating that they fail to provide psychometric validation (e.g., Valcour, 2007). In this regard, a growing number of studies have assessed work-nonwork balance via multiple items, including satisfaction with work-nonwork balance (e.g., Haar, 2014; Syrek et al., 2011; Syrek et al., 2013; Valcour, 2007), effectiveness of work-nonwork balance (e.g. Hill et al., 2001; Keene & Qadagno, 2004; Olsen & Dahl, 2010), absence of work-nonwork conflict (e.g., Kinman & Jones, 2008), fit (e.g., Smith, 2005; Wu et al., 2013), role accomplishment (Carlson, 2009; Ferguson et al., 2013), full engagement (e.g., Lee et al., 2014; Marks et al., 2001), and satisfaction and effectiveness of work-nonwork balance (e.g., Greenhaus & Allen, 2012). These measures reflect the manner in which the work-nonwork balance construct (i.e., the global or component approach) was defined and derived.

Using the component approach, scholars measured work-nonwork balance using the following multi-item scales: components of work-family conflict and work-family facilitation (e.g., Aryee et al., 2005), satisfaction and good functioning across work and family roles (Clark, 2002), and equality (i.e., time, involvement, and satisfaction) (Greenhaus et al., 2003). In assessing work-family balance as a combination of negative and positive work-family interfaces, Tiedje et al. (1990) developed two 9-item subscales for evaluating work-family conflict and enhancement separately. Aryee et al. (2005) measured work-family balance as the absence of work-family conflict and the presence of facilitation using Grzywacz's (2000) scale.

However, this method of capturing work-nonwork balance seemed questionable as it mixed work-family balance with the cross-domain mechanisms of work-family conflict and facilitation (Greenhaus et al., 2003; Valcour, 2007). This method also makes it ambiguous to interpret the component approach of work-nonwork balance. Most studies have operationalized and measured work-nonwork balance as work-nonwork conflict and work-nonwork facilitation

without really identifying the criteria of what constitutes high or low work-nonwork balance. As a consequence, the various results do not lend themselves to easy comparison or uniform interpretation across different studies. One exception is the study conducted by Grzywacz and his colleagues (2008). In their research, work-family balance was measured in four ways: balanced (low work-family conflict and high work-family facilitation), segmented (low work-family conflict and low work-family facilitation), imbalanced (high work-family conflict and low work-family facilitation), and blurred (high work-family conflict and high work-family facilitation).

Clark (2000; 2002) measured work-family balance using five sub-scales of work satisfaction, home satisfaction, family cohesion, employee citizenship, and role conflict. It should be noted that this operationalization and measurement was not consistent with Clark's (2002) own definition of work-family balance, which views work-family balance as satisfaction and the ability to function properly at work and at home with a minimum of role conflict.

Finally, Greenhaus and his colleagues (2003) proposed another measurement for assessing the objective and component aspect of work-family balance. Specifically, Greenhaus et al. (2003) suggested that balance includes time, involvement, and satisfaction components. Using this approach, they computed a balance coefficient that indicated whether individuals devoted equal time to work and family, equal involvement in work and family roles, and expressed equal satisfaction with work and family. However, viewing work-family balance in terms of this equality approach is problematic as this framework ignores the fact that people attach different personal values and meaning to each of their multiple roles and hence may have a different interpretation of work-nonwork balance (Kossek et al., 2013).

The foregoing review of past studies that used the component measurements of work-family balance has revealed a problem of conflating work-nonwork balance with the absence of work-family conflict and presence of work-family enhancement (e.g., Tiedje et al., 1990), inconsistencies between definition and measurement (e.g., Clark, 2000), and an unrealistic representation of work-nonwork balance as an representation of equal amounts of time, energy, and satisfaction across major life roles (e.g., Greenhaus et al., 2003). In sum, the component approaches used to measure work-nonwork balance do not offer a coherent framework by which to assess work-nonwork balance and continues to perplex scholars with these unresolved challenges.

## **Sample Characteristics**

Next, I will review the demographic characteristics of the samples used in the research on work-nonwork balance. Unfortunately, not all of the work-nonwork balance studies in this review reported the participants' demographic information. Within the studies that did provide the sample information, 80% presented age; 84% investigated mixed males and/or female samples; 26% reported ethnicity (the majority were Caucasian); 51% reported marital status; 11% reported dual-earner status; 68% reported care-giving responsibilities, which included providing care for children at home and other dependent care responsibilities; 20% reported average work hours per week, 66% reported occupations in which middle or high-level managers accounted for almost half of the samples included in the studies. Finally, the education level was reported by 92% of the studies reviewed for this dissertation. My review also revealed that 45% of the research reported an array of general industries. In addition, 58% studies were conducted on continents other than North America. Samples from Asian countries, Australia, and European countries were also included in my review; however, most of the studies were based on samples from the United States. Only 14% of the studies were based on multi-country samples (see Table 3). In the next section, I review the research designs and analytic approaches employed in the study of work-nonwork balance.

Table 3 Sample Characteristics

Category	Codable studies	% of total studies
<i>Age</i>	59	80
<i>Job tenure</i>	6	8
<i>Organizational tenure</i>	15	20
<i>Gender</i>	62	84
Male only	1	1
Female only	4	5
Mixed	57	77
<i>Race</i>	19	26
<i>Marital status</i>	38	51
<i>Dual-earner</i>	8	11
<i>Care responsibilities</i>	50	68
Children at home		
Parental status		
Dependent other than children at home		
<i>Average work hours per week</i>	15	20
<i>Occupation</i>	49	66
Managers and professionals		
Technical		
Service		
Sales and administrative		
Operational		
Students		
<i>Educational level</i>	68	92
Postgraduate degree		
Bachelor degree		
College degree		
Secondary/Professional qualification		
High school education		

## **Research Design and Analytic Approach**

IO/OB research has been criticized for its overdependence on cross-sectional design (e.g., Casper et al., 2007; Chang et al., 2010), which is also evident in work-nonwork balance research (see Table 4). Of the 74 quantitative articles I reviewed, 88% used cross-sectional design from 1989 to 2015, while only 12% employed a time-lagged design (e.g., Casey & Grzywacz, 2008; Sanz-Vergel et al., 2010). Regarding the research settings, all of the studies employed a field survey (99%) with one exception by Michel et al. (2014). Michel and his colleagues (2014) designed a field experiment to observe how an organization's intervention of promoting work-life balance influenced the extent to which employees' reported satisfaction with their work-life balance.

Table 4 Methodology

<b>Methodology</b>		
<b>Research Design</b>	<b>Codable studies</b>	<b>% of total studies</b>
<i>Time horizon</i>	74	
Cross-sectional	65	88
Longitudinal	9	12
<i>Setting</i>	72	
Field survey	73	99
Quasi-experiment	1	1
<b>Data Collection Methods, Levels of Analysis, and Multiple Source</b>		
<i>Data collection methods</i>	74	
Survey	66	89
Archival data	8	11
<i>Level of analysis</i>	68	
Individual	72	97
Dyadic (Couple and supervisor-subordinate)	2	3
<i>Data source</i>	74	
Single source data	71	96
Multiple source data	3	4
<b>Analytic Approach</b>		
Regression	47	64
SEM	12	16
HLM/Multi-level modeling	8	11
ANOVA	1	1
MANCOVA	2	3
Correlation	2	3
T-test	1	1
Latent profile analysis	1	1



Most scholars conducted surveys (89%) to quantitatively assess work-family balance, and some used archival data (11%) (e.g., Parkes & Jones, 2008). In addition, an individual level of analysis was a dominant analytic strategy employed by scholars with the exception of two studies that used dyadic analysis (i.e., Carlson et al., 2013; Ferguson et al., 2012). Although multiple source data has frequently been recommended to counteract the potential for common method bias (e.g., Casper et al., 2007), only a very small number of the research studies employed multiple source data (4%).

In testing the use of statistical techniques in work-family balance, scholars primarily used hierarchical linear regression analysis. Those studies that operationalized work-family balance as a dichotomous variable used logistic regression analysis. Other analytic approaches used in these studies include structural equation modeling, multi-level modeling, ANOVA, MANCOVA, and t-test.

### **Antecedents and Outcomes of Work-Nonwork Balance**

In this section, I will review the antecedents and outcomes for each stream of work-nonwork balance in line with the two main theoretical streams of global and component approaches to the study of work-nonwork balance. Specifically, I will categorize the antecedents as work demands and resources, nonwork demands and resources, and personal factors (see Tables 5 and 6). Outcomes are categorized as work, nonwork, and personal outcomes (see Tables 7 and 8). The overall theoretical model is shown in Figure 1.

Table 5 Antecedents of Global Work-Nonwork Balance

<b>Antecedents of Work-Nonwork Balance (Global Approach)</b>								
	<b>Effects</b>	<b><i>Satisfaction</i></b>	<b><i>Effectiveness</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishment</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Work Demands</b>								
Actual work hours	(-)	Abendroth & Dulk (2011); McNamara et al. (2013); Valcour (2007)	Hill et al. (2001); Lyness & Kropf (2005); Parkes et al. (2008)			Wu et al. (2013)		Odle-Dusseau et al. (2012)
Desired work hours	(+)	Valcour (2007)						Odle-Dusseau et al. (2012)
Overtime work hours	(-)	Beham et al. (2012)		Kinman & Jones (2008)				
Work hour discrepancy	n.s.	Odle-Dusseau et al. (2012)						
Commute time	(-)	Valcour (2007)						
Time pressure	(-)	Beham et al. (2012); Syrek et al. (2013)						
Work pressure	(-)	Abendroth & Dulk (2011)						

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<i>Effects</i>	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Work Demands</b>								
Organizational time expectations	(-)	Beham & Drobnic <sup>✓</sup> , (2010)						
Job demands	(-)	Saltzstein et al. (2002); Beham et al., 2009; Beham et al., (2012)	Butler et al. (2009); Brough et al. (2014); Virick et al. (2007)	Kinman & Jones (2008)				
Job threat/insecurity	(-)	Beham et al. (2009; 2012)	Bell et al. (2012)					
Work trade-off/Sacrifice at work	(-)		Hill et al. (2004); Keene & Qadagno (2004)					
	n.s.		Keene & Qadagno (2004)					
<b>Nonwork Demands</b>								
Actual family hours	(-)			Hill et al. (2001)				Odle-Dusseau et al. (2012)
Desired family hours	(-)							Odle-Dusseau et al. (2012)

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<b>Effects</b>	<b><i>Satisfaction</i></b>	<b><i>Effectiveness</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishment</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Nonwork Demands</b>								
Family hour discrepancy	(-)							Odle-Dusseau et al. (2012)
Number of children at home	(-)	Abendroth & Dulk (2011); Saltzstein et al. (2002)						
Unfair housework division	(-)	Abendroth & Dulk (2011)	Hill et al. (2004)					
Care responsibilities	(-)	Abendroth & Dulk (2011)						
Family trade-off/sacrifice at family	(-)		Hill et al. (2004); Keene & Qadagno (2004)					
<b>Work Resources</b>								
Perceived work-family culture	(+)	McNamara et al. (2013)	Lyness & Kroph (2005)	Waumsley et al. (2010)				
Organizational support	(+)	Saltzstein et al. (2002)		Jang et al. (2009)		Wu et al. (2013)		Russo et al. (2015)

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<i>Effects</i>	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Work Resources</b>								
Social support / Work-family support	(+)	Beham et al. (2009,2012)						
Supervisor/Manager support	(+)	Abendroth & Dulk (2011)	Yulie et al. (2012)	Jang et al. (2009); Kinman & Jones (2008)				
	n.s.					Wu et al. (2013)		
Coworker support	(+)	Abendroth & Dulk (2011)			Ferguson et al. (2012)			
Family-supportive supervision	(+)							Greenhaus et al. (2012)
Flexible work schedule/ Control over time	(+)	Saltzstein et al. (2002)	Olsen & Dahl (2010); Yulie et al. (2012)	Jang et al. (2009); Kinman & Jones (2008)				
	n.s.	Abendroth & Dulk (2011)	Olsen & Dahl (2010)					

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<b>Effects</b>	<b><i>Satisfaction</i></b>	<b><i>Effectiveness</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishment</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Work Resources</b>								
Flexibility arrangement (global)	(+)	Abendroth & Dulk (2011); Duncan & Pettigrew (2012)	Hill et al. (2001; 2004); Lyness & Kroph (2005) Parkes et al. (2008)					
Compressed work schedule	n.s.	Duncan & Pettigrew (2012)						
	(+)	Saltzstein et al. (2002)						
Offsite working	n.s.	Abendroth & Dulk (2011)						
	(-)	Saltzstein et al. (2002)	Yulie et al. (2012)					
Shift work	n.s.	Abendroth & Dulk (2011)						
	(+)	Duncan & Pettigrew (2012)	Yulie et al. (2012)					
	n.s.	Duncan & Pettigrew (2012)						

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	Effects	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Work Resources</b>								
43	Part-time/alternative arrangement	(+)	Saltzstein et al. (2002)	Hill et al. (2001)				
		(-)		Olsen & Dahl (2010)				
	Career arrangement	n.s.		Yulie et al. (2012)				
	Flexibility -fit	(+)	McNamara et al. (2013)					
			Abendroth & Dulk (2011);					
	Job control	(+)	Beham et al. (2009; 2012)		Kinman & Jones (2008)			
	Job complexity	(+)	Valcour (2007)					
	Role clarity	(+)		Parkes et al. (2008)				
	Work status congruence	(+)	Omar (2013)					
	Transformational leadership	(+)	Syrek et al. (2013)					Direnzo et al. (2015)

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<b>Effects</b>	<b><i>Satisfaction</i></b>	<b><i>Effectiveness</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishment</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Work Resources</b>								
Human capital	n.s.							Direnzo et al. (2015)
Social capital	n.s.							Direnzo et al. (2015)
Psychological capital	(+)							Direnzo et al. (2015)
Quality of social life	(+)	Abendroth & Dulk (2011)						
<b>Nonwork Resources</b>								
Having a partner	(+)	Abendroth & Dulk (2011); Syrek et al. (2013)						
	n.s.	Beham et al. (2012)						
Partner/family support	(+)	Ferguson et al. (2012); Butler et al. (2009)						Russo et al. (2015)



Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<i>Effects</i>	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Nonwork Resources</b>								
Informal help with domestic tasks	n.s.	Abendroth & Dulk (2011)						
Paid help with domestic tasks	n.s.	Abendroth & Dulk (2011)						
Quality of relationship with relatives	(+)	Abendroth & Dulk (2011)						
Quality of social life	(+)	Abendroth & Dulk (2011)						
<b>Work-Nonwork Interface</b>								
Work-to-family/life conflict	(-)	Beham & Drobnic <sup>~</sup> , (2010); Grawitch et al. (2013)	Butler et al. (2009)				Haar et al. (2014); Lee et al. (2014)	Greenhaus et al. (2012)
Family/life-to-work conflict	(-)							Greenhaus et al. (2012)
	n.s.	Grawitch et al. (2013)					Haar et al. (2014)	

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<i>Effects</i>	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Work-Nonwork Interface</b>								
Work-to-family/life facilitation	(+)	Grawitch et al. (2013)					Haar et al. (2014)	
Family/life-to-work facilitation	(+)	Grawitch et al. (2013)	Butler et al. (2009)				Haar et al. (2014)	
<b>Individual Factors</b>								
Bad moods	n.s.		Keene & Qudagno (2004)					
Mindfulness	(+)							Allen & Kiburz (2012) ; Michel et al., (2014)
Sleep quality	(+)							Allen & Kiburz (2012)
Job involvement	(+)	Saltzstein et al. (2002)						

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<i>Effects</i>	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Individual Factors</b>								
Family involvement	(-)	Saltzstein et al. (2002)						
Job values	(+)					Wu et al. (2013)		
Vitality	(+)							Allen & Kiburz (2012)
Whole life perspective	(+)							Direnzo et al. (2015)
Protean career orientation	(+)							Direnzo et al. (2015)
Extroversion	n.s.		Devi & Reni (2012)					
Agreeableness	(+)		Devi & Reni (2012)					
Conscientiousness	n.s.		Devi & Reni (2012)					

Table 5 Antecedents of Global Work-Nonwork Balance (Cont'd)

	<i>Effects</i>	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Individual Factors</b>								
Emotional stability	n.s.		Devi & Reni (2012)					
Openness to experience	n.s.		Devi & Reni (2012)					
Organizational identity	(+)			Waumsley et al. (2010)				
Psychological detachment	(+)	Michel et al.(2014)						
Psychological availability	(+)							Russo et al. (2015)

Table 6 Antecedents of Component Work-Nonwork Balance

<b>Antecedents of Work-Family Balance (Component Approach)</b>								
	<b>Effects</b>	<b>WFC/WLC</b>	<b>FWC/LWC</b>	<b>WFF/WLF</b>	<b>FWF/LWF</b>	<b>Global WFC</b>	<b>Global WFF</b>	<b>Combined WFB/WLB</b>
<b>Work Demands</b>								
Actual work hours	(+)	Lu et al. (2013)						
	n.s.		Lu et al. (2013)	Lu et al. (2013)	Lu et al. (2013)	Bass & Grzywacz (2010); Sanz-Vergel et al.(2010)	Bass & Grzywacz (2010); Sanz-Vergel et al.(2010)	
Work pressure	(+)					Sanz-Vergel et al.(2010)		
	n.s.						Sanz-Vergel et al.(2010)	
Work overload	(+)	Aryee et al. (2005)	Aryee et al. (2005)					
	n.s.			Aryee et al. (2005)	Aryee et al. (2005)			
Work stress	(+)					Siu (2013)		
	n.s.						Siu (2013)	
Inadequate job	(+)					Bass & Grzywacz (2010)		
	n.s.						Bass & Grzywacz (2010)	
Barely adequate job	(+)					Bass & Grzywacz (2010)	Bass & Grzywacz (2010)	

Table 6 Antecedents of Component Work-Nonwork Balance (Cont'd)

	Effects	WFC/WLC	FWC/LWC	WFF/WLF	FWF/LWF	Global WFC	Global WFF	Combined WLB
<b>Work Demands</b>								
Career consequences	(-)							Darcy et al. (2012)
	n.s.							Darcy et al. (2012)
<b>Nonwork Demands</b>								
Parental overload	(+)	Aryee et al. (2005)	Aryee et al. (2005)					
	n.s.			Aryee et al. (2005)	Aryee et al. (2005)			
<b>Work Resources</b>								
Work support	n.s.	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)			
Economically good job	(+)					Bass & Grzywacz (2010)	Bass & Grzywacz (2010)	
	n.s.					Bass & Grzywacz (2010)		

Table 6 Antecedents of Component Work-Nonwork Balance (Cont'd)

	Effects	<i>WFC/WLC</i>	<i>FWC/LWC</i>	<i>WFF/WLF</i>	<i>FWF/LWF</i>	<i>Global WFC</i>	<i>Global WFF</i>	<i>Combined WLB</i>
<b>Work Resources</b>								
Psychologically good job	(+)					Bass & Grzywacz (2010)		
	n.s.					Bass & Grzywacz (2010)		
Family-friendly supervision/Management support	(+)							Darcy et al. (2012)
	(-)	Lu et al. (2013)						
Family-friendly supervision/Management support	n.s.		Lu et al. (2013)	Lu et al. (2013)	Lu et al. (2013)			
Family-friendly coworkers	(+)			Lu et al. (2013)	Lu et al. (2013)			
	(-)	Lu et al. (2013)						
	n.s.		Lu et al. (2013)					
<b>Nonwork Resources</b>								
Family-friendly policies	(+)				Aryee et al. (2005)			

Table 6 Antecedents of Component Work-Nonwork Balance (Cont'd)

	Effects	<i>WFC/WLC</i>	<i>FWC/LWC</i>	<i>WFF/WLF</i>	<i>FWF/LWF</i>	<i>Global WFC</i>	<i>Global WFF</i>	<i>Combined WLB</i>
<b>Nonwork Resources</b>								
Family-friendly policies	n.s.		Lu et al. (2013)	Lu et al. (2013)	Lu et al. (2013)			
Family support	(+)				Aryee et al. (2005)			
	n.s.			Aryee et al. (2005)				
	(-)	Aryee et al. (2005)	Aryee et al. (2005)					
Spouse support	(+)			Lu et al. (2009)	Lu et al. (2009)			
	n.s.	Lu et al. (2009)	Lu et al. (2009)					
Employed domestic helper	n.s.	Lu et al. (2009)	Lu et al. (2009)	Lu et al. (2009)	Lu et al. (2009)			
Elderly domestic helper	n.s.	Lu et al. (2009)	Lu et al. (2009)					
<b>Work-Family Interface</b>								
Work-family/life conflict (global)	(-)							Carlson et al. (2013)
Work-family/life facilitation (global)	(+)							Carlson et al. (2013)



Table 6 Antecedents of Component Work-Nonwork Balance (Cont'd)

	Effects	<i>WFC/WLC</i>	<i>FWC/LWC</i>	<i>WFF/WLF</i>	<i>FWF/LWF</i>	<i>GLOBAL WFC</i>	<i>GLOBAL WFF</i>	<i>Combined WFB/WLB</i>
<b>Personal factors</b>								
Proactive personality	(+)			Aryee et al. (2005)				
	n.s.	Aryee et al. (2005)	Aryee et al. (2005)		Aryee et al. (2005)			
Optimism	n.s.	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)			
Neuroticism	(+)	Aryee et al. (2005)	Aryee et al. (2005)					
	n.s.			Aryee et al. (2005)				
Job involvement	(+)			Aryee et al. (2005)			Darcy et al. (2012)	
	(-)		Aryee et al. (2005)					
	n.s.	Aryee et al. (2005)			Aryee et al. (2005)			
Family involvement	(+)				Aryee et al. (2005)			
	n.s.	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)				
Internal privacy orientations	(+)							Carmon et al. (2013)
External privacy orientations	n.s.							Carmon et al. (2013)

Table 6 Antecedents of Component Work-Nonwork Balance (Cont'd)

	Effects	<i>WFC/WLC</i>	<i>FWC/LWC</i>	<i>WFF/WLF</i>	<i>FWF/LWF</i>	<i>GLOBAL WFC</i>	<i>GLOBAL WFF</i>	<i>Combined WFB/WLB</i>
<b>Personal factors</b>								
54	Active coping	(+)					Patel et al. (2012)	
		n.s.				Patel et al. (2012)		
	Avoidance coping	(+)				Patel et al. (2012)		
		n.s.					Patel et al. (2012)	
	Emotional coping	n.s.	Patel et al. (2012)	Patel et al. (2012)				
	Morning negative affect	n.s.				Sanz-Vergel et al.(2010)	Sanz-Vergel et al.(2010)	
	Morning positive affect	n.s.				Sanz-Vergel et al.(2010)	Sanz-Vergel et al.(2010)	
		(-)				Sanz-Vergel et al.(2010)		
	Expression of negative emotions at work	n.s.				Sanz-Vergel et al.(2010)	Sanz-Vergel et al.(2010)	
	Expression of positive emotions at work	(+)					Sanz-Vergel et al.(2010)	
		(-)				Sanz-Vergel et al.(2010)		

Table 6 Antecedents of Component Work-Nonwork Balance (Cont'd)

	Effects	<i>WFC/WLC</i>	<i>FWC/LWC</i>	<i>WFF/WLF</i>	<i>FWF/LWF</i>	<i>GLOBAL WFC</i>	<i>GLOBAL WFF</i>	<i>Combined WFB/WLB</i>
<b>Personal factors</b>								
Expression of negative emotions at home	n.s.					Sanz-Vergel et al.(2010)	Sanz-Vergel et al.(2010)	
Expression of positive emotions at home	(+)						Sanz-Vergel et al.(2010)	
	n.s.					Sanz-Vergel et al.(2010)		
Positive affects from subordinates	(+)							Carlson et al. (2013)
Positive affects from supervisors	(+)							Carlson et al. (2013)
Recovery after breaks	(+)						Sanz-Vergel et al.(2010)	
	n.s.					Sanz-Vergel et al.(2010)		

Table 7 Outcomes of Global Work-Nonwork Balance

<b>Outcomes of Work-Nonwork Balance (Global Approach)</b>								
	<b>Effects</b>	<b><i>Satisfaction</i></b>	<b><i>Effectiveness</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishment</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Work Outcomes</b>								
Role ease	(+)						Marks & MacDermid (1996)	
Role overload	n.s.						Marks & MacDermid (1996)	
Turnover intentions	(-)	Vanderpool & Way (2013)	Brough et al. (2014); Noor (2011)	Kinman & Jones (2008); Waumsley et al. (2010)				Odle-Dusseau et al. (2012)
Actual voluntary turnover	(-)	Vanderpool & Way (2013)						
Job retention	(+)					Smith (2005)		
Sickness absence	n.s.	Vanderpool & Way (2013)						
Work-related impairment	(-)	Vanderpool & Way (2013)						
Engagement	(-)				Parkes & Langford (2008)			

Table 7 Outcomes of Global Work-Nonwork Balance (Cont'd)

	Effects	<i>Satisfaction</i>	<i>Effectiveness</i>	<i>Absence of conflict</i>	<i>Role accomplishment</i>	<i>Fit</i>	<i>Full engagement</i>	<i>Satisfaction and effectiveness</i>
<b>Work Outcomes</b>								
In-role performance	(+)			Kim (2014)				
Job satisfaction	(+)	Grawitch et al. (2013)	Brough et al. (2014) ; Virick et al. (2007)	Kinman & Jones (2008); Noor (2011)	Ferguson et al. (2012)			Haar (2014); Haar et al. (2014)
Job commitment	(+)	Vanderpool & Way (2013)						
Organizational commitment	(+)			Noor (2011)				
<b>Nonwork Outcomes</b>								
Number of friends	(+)						Marks & MacDermid (1996)	
Quality of life	(+)							Odle-Dusseau et al. (2012)
Marital satisfaction	(+)				Ferguson et al. (2012)			

Table 7 Outcomes of Global Work-Nonwork Balance (Cont'd)

	<b>Effects</b>	<b><i>Satisfaction</i></b>	<b><i>Effectiveness</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishment</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Nonwork Outcomes</b>								
Family satisfaction	(+)	Grawitch et al. (2013)	Brough et al. (2014)					
Partner family satisfaction	(+)				Ferguson et al. (2012)			
Life satisfaction	(+)		Virick et al. (2007)					Haar (2014); Haar et al. (2014)
<b>Personal outcomes</b>								
Self-esteem	(+)						Marks & MacDermid (1996)	
Personal accomplishment/Need fulfilment	(+)		Gröpel & Kuhl (2009)					
	(-)							
	n.s.			Umene-Nakano et al. (2013)				
Depression	(-)	Haar et al. (2014)					Marks & MacDermid (1996)	Haar (2014); Haar et al. (2014); Odle-Dusseau et al. (2012)

Table 7 Outcomes of Global Work-Nonwork Balance (Cont'd)

	<b>Effects</b>	<b><i>Satisfac- tion</i></b>	<b><i>Effectiven- ess</i></b>	<b><i>Absence of conflict</i></b>	<b><i>Role accomplishm- ent</i></b>	<b><i>Fit</i></b>	<b><i>Full engagement</i></b>	<b><i>Satisfaction and effectiveness</i></b>
<b>Personal Outcomes</b>								
Anxiety	(-)	Vanderpo- ol & Way (2013)						Haar (2014); Haar et al. (2014)
Psychological strain/Stress	(-)		Brough et al. (2014)	Kinman & Jones (2008)				
Emotional exhaustion	(-)			Umene- Nakano et al. (2013)				Haar (2014)
Mental well- being	(+)		Gropel & Kuhl (2009)	Jang (2009)		Lunau et al. (2013)		
Self-related health	(+)					Lunau et al. (2013)		
Somatic symptoms	(-)			Kinman & Jones (2008)				
Affective commitment	(+)	Omar (2013)		Kim (2014)				

Table 8 Outcomes of Component Work-Nonwork Balance

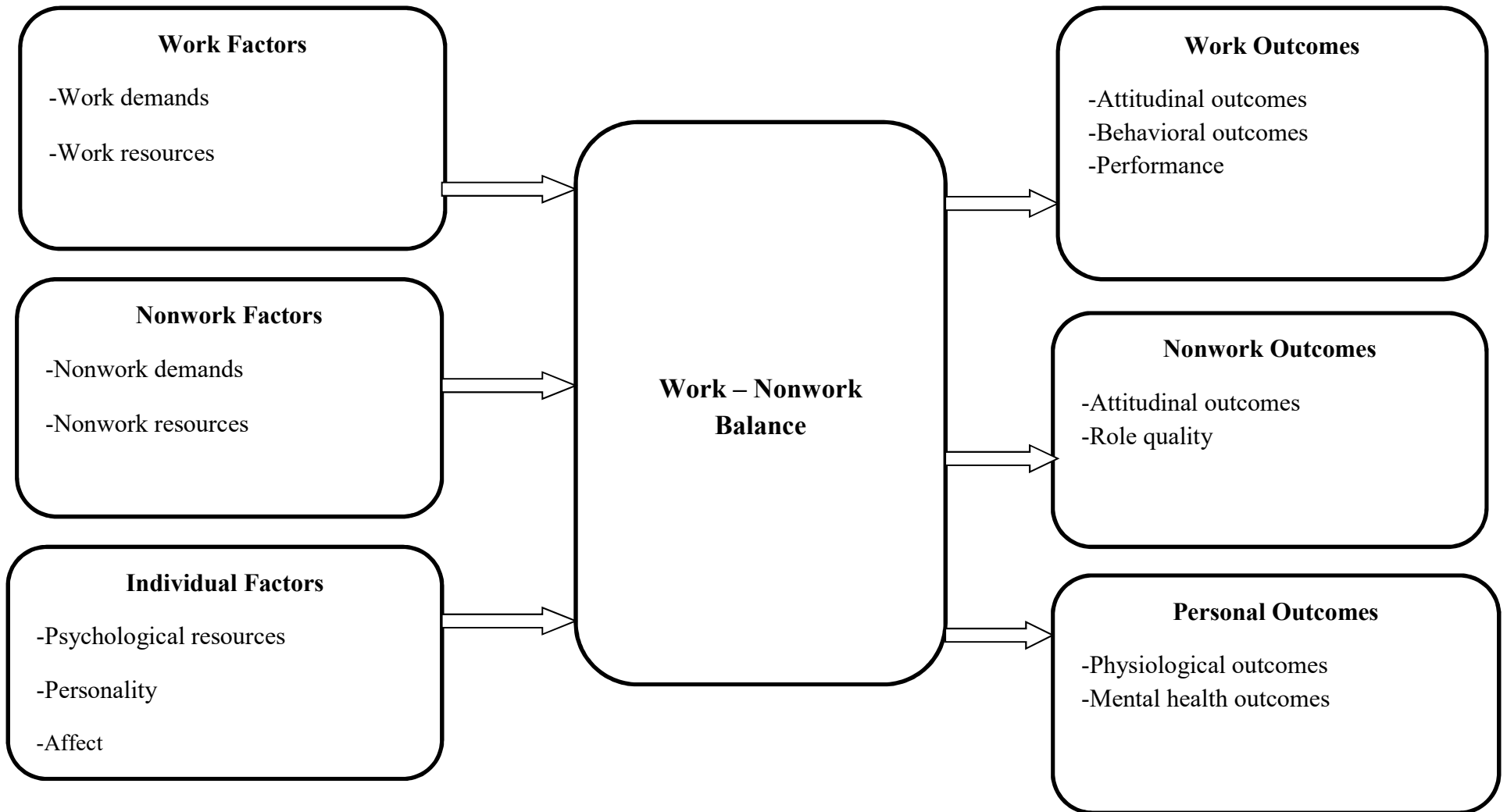
[illegible]



Table 8 Outcomes of Component Work-Nonwork Balance (Cont'd)

		<i>Effects</i>	<i>WFC/WLC</i>	<i>FWC/LWC</i>	<i>WFF/WLF</i>	<i>FWF/LWF</i>	<i>Segmented (low WFC and low WFE)</i>	<i>Imbalanced (high WFC and low WFE)</i>	<i>Blurred (high WFC and high WFE)</i>	<i>Global WFB combined by WFC and WFF</i>
<b>Personal Outcomes</b>										
	Job satisfaction	(+)			Aryee et al. (2005)					
		n.s.	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)					
	Organizational commitment	(+)			Aryee et al. (2005)					
		n.s.	Aryee et al. (2005)	Aryee et al. (2005)	Aryee et al. (2005)					
	Physical symptoms	(+)						Grzywacz et al. (2009)		
		n.s.					Grzywacz et al. (2009)		Grzywacz et al. (2009)	
	Psychological distress	(+)						Grzywacz et al. (2009)		
		n.s.					Grzywacz et al. (2009)		Grzywacz et al. (2009)	

Figure 1 Theoretical model of antecedents and outcomes of work-nonwork balance



## Antecedents

*Work demands.* Consistent with other reviews of work-nonwork interface (e.g., Eby et al., 2005), my review reveals that a variety of work demands account for whether work and nonwork roles are balanced. Particularly, researchers within both the global and component streams of research are consistent in portraying work pressure and overload as being detrimental to work-nonwork balance (e.g., Abendroth & Dulk, 2011; Aryee et al., 2005; Bulter et al., 2009; Sanz-Vergel et al., 2010). Moreover, both approaches investigated the role of actual work hours, but the results from these two streams of research are incongruent. Researchers who theorized work-nonwork balance as a global construct consistently found that actual work hours were negatively related to work-nonwork balance (e.g., Lyness & Kropf, 2005; McNamara et al., 2013), while researchers who viewed work-nonwork balance as a composite of work-nonwork conflict and work-nonwork enhancement did not find a significant relationship between actual work hours and the combined work-nonwork balance. For example, Lu et al. (2013) found that actual work hours were positively related to work-to-nonwork conflict, but were not significantly related to either nonwork-to-work conflict or the bi-directional work-nonwork facilitation. By operationalizing work-nonwork balance as a composite score of unidirectional work-nonwork conflict and facilitation, Sanz-Vergel et al. (2010) and Bass and Grzywacz (2010) failed to find significant support for the relationship of actual work hours and work-nonwork balance. This result is not surprising since work-nonwork conflict and facilitation are theoretically and conceptually distinct from work-nonwork balance (Valcour, 2007).

Similarly, based on the global conceptualization of work-nonwork balance, researchers examined and found negative relationships among overtime work hours (e.g., Beham et al., 2012), time pressure (e.g., Syrek, 2013), organizational time expectations (Beham & Drobnic,

2010), job insecurity (Bell et al., 2012), work tradeoffs (spillover) (Keene & Qadagno, 2004), and work-family balance. Moreover, Valcour (2007) reported a positive relationship between desired work hours and work-family balance.

*Nonwork demands.* Nonwork demands are also related to work-nonwork balance. Researchers have reported that actual family hours (e.g., Hill et al., 2001), desired family hours (Olde-Dusseau et al., 2012), family hour discrepancy (i.e., the discrepancy between actual family hours and desired family hours) (Olde-Dusseau et al., 2012), number of children at home (e.g., Saltzstein et al., 2002), unfair housework division (e.g., Hill et al., 2004), care-giving responsibilities (e.g., Abendroth & Dulk, 2011), and family tradeoffs (spillover) (Hill et al., 2004) were negatively associated with work-nonwork balance within the global approach to the assessment of work-nonwork balance. In contrast, few studies have assessed the relationship between nonwork demands and work-nonwork balance within the component approach. Those studies that assessed this relationship did not find consistent results across different facets of work-nonwork relationships. For example, Aryee and his colleagues (2005) reported that parental overload was positively associated with work-family conflict, but insignificantly associated with work-family facilitation.

*Work resources.* A variety of studies have investigated the role of supportive resources available to employees to help them balance their work and nonwork roles, but the findings appear inconclusive. I have organized and classified these resources as follows: organizational level support, relational level support, and job level support. Organizational level support includes concepts and measures that assess the extent to which an organization's culture, policies, and practices help employees balance their work-nonwork roles. Relational level support includes variables that indicate the extent to which supervisors and coworkers extend tangible

and emotional support to employees juggling different role responsibilities. Job level support includes variables that allow employees to have some control, flexibility, and discretion in the performance of their job duties.

With respect to organizational level support, scholars have found that both family-friendly support and general organizational support were positively related to work-nonwork balance (e.g., McNamara et al., 2013; Saltzstein et al., 2002). In addition, although flexible work arrangements have been regarded as a type of instrumental support for attaining work-nonwork balance, the findings in this area have not been consistent. For example, the relationship between flexible work arrangements and work-nonwork balance was negative when the balance was assessed as a global construct and the relationship was insignificant when the balance was assessed using the component approach (e.g., Duncan & Pettigrew, 2012; Lu et al., 2013). Researchers also found inconsistent relationships between work-nonwork balance and family-friendly policies, such as compressed work schedules (e.g., Saltzstein et al., 2002), offsite working (e.g., Yulie et al., 2012), shift work (e.g., Ducan et al., 2012), and part-time work (Hill et al., 2001).

In contrast, a more consistent pattern of results existed between relational level support and work-nonwork balance. Specifically, relational level support, such as supervisor support (e.g., Kinman & Jones, 2008), family-supportive supervision (Darcy et al., 2012), and coworker support (e.g., Abendroth & Dulk, 2011), was positively related to work-nonwork balance. Job level support including job control (e.g., Beham et al., 2009), job complexity (Valcour, 2007), and role clarity (Parkes et al., 2008) had a positive relationship with work-nonwork balance. Personal-job fit has also been examined as a specific type of job level support. In line with the fit perspective, researchers have explored the supply-demand fit in terms of flexibility fit (i.e., the

fit between worker needs and flexible work options available) and work status congruence. These studies have confirmed that the fit between supplied resources and personal needs is likely to increase satisfaction with work-nonwork balance (e.g., McNamara et al., 2013; Omar, 2013).

*Nonwork resources.* In reviewing research on the relationship between various resources and work-nonwork balance, it is evident that scholars have paid relatively little attention to the role of nonwork resources. Nonwork resources include support from family members, spouse/partner, and paid domestic help. Studies have found inconsistent relationships among these different nonwork supportive resources and balance within the global and component approaches. Instrumental support in terms of paid domestic help and elderly domestic help was not significantly associated with work-nonwork balance within either the global or component approaches. Where there was some evidence of a significant relationship, it was either not in the expected direction or associated with only one facet of work-nonwork balance, such as facilitation or conflict. Specifically, Lu and her colleagues (2009) found that paid domestic help was negatively associated with family-to-work facilitation and domestic help for eldercare was only positively associated with family-to-work facilitation.

A similar pattern of inconsistent results was also found for the relationship among forms of relational nonwork support and work-nonwork balance. In particular, relational level nonwork support, spousal support, and quality of relationships with relatives were positively related to work-nonwork balance (e.g., Ferguson et al., 2012). In contrast, scholars have found inconsistent results for the relationship between work-nonwork balance and having a partner and family support (e.g., Aryee et al., 2005; Beham et al., 2012).

*Personal factors.* Studies have reported that personal factors are also associated with work-nonwork balance. In particular, individual differences, such as personality (e.g., Aryee et al., 2005; Devi & Reni, 2012), role involvement (Saltzstein et al., 2002), organizational identity (Waumsley et al., 2010), job values (Wu et al., 2013), mindfulness (Allen & Kiburz, 2012), and internal and external privacy orientations (Carmon et al., 2013) were associated with work-nonwork balance, but these relationships seemed inconsistent, such that not all individual differences had significant relationships with work-nonwork balance.

Moreover, existing studies have found counterintuitive and inconsistent evidence between affective factors and work-nonwork balance. For example, Sanz-Vergel and his colleagues (2010) reported that levels of negative and positive affect measured in the morning were not significantly associated with either work-family conflict or work-family facilitation or the composite score of work-family balance measured later the same day. In contrast, Carlson et al. (2013) found that subordinates' positive affect rated by subordinates and supervisors was positively related to work-family conflict and facilitation as well as to the composite work-family balance score. Another individual factor that has been examined within the context of work-nonwork balance is self-regulation resources. Patel and his colleagues (2012), for example, found that different coping strategies (i.e., active, avoidance, and emotional) were positively related to work-family conflict and facilitation differently.

*Work-nonwork interface.* Paralleling the theoretical arguments that work-nonwork balance is distinct from work-nonwork interrelationships in terms of conflict and facilitation, scholars have theorized that work-nonwork balance as a global assessment would be related to work-nonwork interrelationships, such as conflict and facilitation. Several research studies have revealed consistent results in this area. Specifically, work-to-nonwork conflict was negatively

associated with work-nonwork balance (e.g., Grawitch et al., 2013; Greenhaus et al., 2012) and both work-to-nonwork and nonwork-to-work facilitation were positively related to work-nonwork balance (e.g., Butler et al., 2009; Haar et al., 2014). However, the relationship between nonwork-to-work conflict and work-nonwork balance was not always consistent: some found it to be negatively related to work-nonwork balance (Greenhaus et al., 2012), while others reported insignificant associations (e.g., Grawitch et al., 2013).

## **Outcomes**

*Work outcomes.* Previous research has reported that work-nonwork balance has been negatively related to undesirable work outcomes such as turnover intentions (e.g., Odle-Dusseau et al., 2012) and actual voluntary turnover (e.g., Smith, 2005; Vanderpool & Way, 2013), as well as to desirable work outcomes such as job retention (Smith, 2005), engagement (Parkes & Langford, 2008), in-role performance (Kim, 2014), organizational citizenship behavior (Carlson et al., 2013), and interpersonal facilitation (Carlson et al., 2008). Moreover, work-nonwork balance contributes additional explanatory power over and above attitudinal outcomes such as job satisfaction (e.g., Ferguson et al., 2012), job commitment (Vanderpool & Way, 2013), affective commitment (e.g., Omar, 2013), and overall organizational commitment (Noor, 2011).

*Nonwork outcomes.* A number of research studies have found that work-nonwork balance was significantly associated with life-related outcomes such as number of friends (Marks & MacDermid, 1996) and quality of life (Odle-Dusseau et al., 2012) as well as with affective outcomes such as family satisfaction (e.g., Grawitch et al., 2013), marital satisfaction (Ferguson et al., 2012), life satisfaction (e.g., Virick et al., 2007), and partner family satisfaction (Ferguson et al., 2012).



## **Personal Outcomes**

Work-nonwork balance was positively related to mental well-being outcomes (e.g., Gröpel & Kuhl, 2009) and negatively related to depression, anxiety, psychological stress, and emotional exhaustion. One study examined the relationship between work-nonwork balance (using the component approach) and physical illness symptoms and found that imbalanced (high work-family conflict and low work-family enrichment) and blurred (high work-family conflict and high work-family enrichment) work-family balance conditions were positively associated with physical symptoms, while balanced (low work-family conflict and high work-family facilitation) and segmented (low work-family conflict and low work-family facilitation) work-family balance conditions were not associated with physical symptoms (Grzywacz et al., 2009).

## **Future Research Agenda**

This essay provided a comprehensive content analysis of empirical articles, identified several areas of convergence, and highlighted discrepancies in work-nonwork balance research. Although the findings in this review illustrated many advances in work-nonwork balance in recent years, significant opportunities exist for researchers to explain how work-nonwork balance is influenced by a variety of forces as well as how work-nonwork balance is related to many organizational and individual outcomes. In this section, I will present several suggestions for advancing work-nonwork balance research.

## **Aligning Definitions and Measures of Work-Nonwork Balance**

One of the conclusions of this review is that the definitions of work-nonwork balance are extraordinarily wide-ranging. Among the different definitions within the global and component approaches, this review indicated that the global approaches were more reliable and anchored in

stronger theoretical foundations than the component approaches. For example, one set of definitions within the component approaches equated the combination of work-nonwork conflict and facilitation with work-nonwork balance. This seems a questionable set of definitions as conflict and facilitation literally represent the two opposing linking mechanisms between work and nonwork lives, while work-nonwork balance presents a global appraisal of balancing work and nonwork demands regardless of the linking mechanisms between the work and nonwork roles.

Despite my assertion that global definitions are more suitable than component ones (Casper et al., 2013), a number of variations exist within the global definition itself. In this review, I chose to follow Valcour's (2007) perspective and defined work-nonwork balance as a global assessment of individuals' levels of satisfaction when handling their work and family demands. I chose this appraisal-centered definition for two reasons. First, like other satisfaction construct (i.e., job satisfaction), satisfaction with work and family balance elucidates individuals' subjective appraisal, which is likely to fluctuate on a day-to-day basis. Second, this definition is comprehensive in that it covers key aspects of other work-family balance definitions. For example, satisfaction with work-family balance reflects people's beliefs that they can successfully allocate limited time, attention, and energy between work and family demands (Grawitch, Barber, & Justice, 2010; Grawitch, Maloney, Barber, & Mooshegian, 2013; Valcour, 2007). It also represents the fit between individuals' life priorities and the way that they manage their multiple life demands (Casper, De Hauw, & Wayne, 2013).

This appraisal-centered definition is most comprehensive in regard to covering key facets of other global definitions of work-nonwork balance. For example, satisfaction with work-family balance emphasizes the cognitive assessment of effectively balancing work and family demands,

and this definition also indirectly indicates a fit between individuals' life priorities and work-nonwork balance (Casper et al., 2013). However, each definition in the global approaches may independently point to a specific feature of work-nonwork balance. It is even possible that work-nonwork balance could be a multi-faceted construct that includes complementary aspects. This review thus recommends that, for any work-nonwork balance research to be meaningful, providing a clear and concrete definition of work-nonwork balance along with its theoretical rationale is a necessary first step. Considering the lack of conceptual agreement with regard to balance, I encourage scholars to conduct qualitative research and use an inductive approach to gain new insights into work-nonwork balance (Casper et al., 2013). Scholars could also use different work-nonwork balance scales in one study and see how similarly or differently these scales perform within and across individuals in the same survey environment.

In addition, future studies could define work-nonwork balance as a global construct and apply multiple item scales to measure it in line with the theoretical foundation. As I described in my review, some studies developed measures of work-nonwork balance without providing any theoretically-based conceptualizations of the construct (e.g., Kinman & Jones, 2008; Parkes & Langford, 2008). Moreover, the construct validity of some of these scales seems to be problematic as scholars failed to guarantee that their measures were congruent with the definitions proposed in the studies. For example, in Fisher-McAuley, Stanton, Jolton, and Gavin's (2009) study, work-life balance was defined as an employees' perception of the degree to which he or she reaches a balance between work and his or her personal life, but was measured using three facets of work-family interface (i.e., work interference with life, life interference with work, and work-life enhancement). Grzywacz, Bulter, and Almeida (2008) referred to work-family balance as the degree to which both work and family mutually benefit

from the interrelationships created by individuals, but they measured work-family balance with work-family conflict and work-family enrichment scales. Duncan and Pettigrew (2012) defined work-family balance via a fit perspective between role demands and resources, but measured work-family balance using a dichotomous item (i.e., one equaled satisfaction and zero equaled dissatisfaction) about satisfaction with work-family balance. The mismatch between the theorizing and operationalization of the work-nonwork balance construct raises questions about the construct validity of their work-nonwork balance. Thus, I encourage scholars to provide valid measures that confirm the construct validity of work-nonwork balance and reduce the occurrence of measurement errors, such as common method bias and random error.

In addition, given that work-nonwork balance means different things to different individuals at different life and career stages, with different work-life priorities, and/or in different occupations, industries, and/or cultural contexts, future research could validate existing work-nonwork balance measures in samples with these specific characteristics. A few pilot studies have attempted to measure work-nonwork balance across countries, but more is needed in order to assess the construct validity of work-nonwork balance across various contexts.

### **Considering the Role of Time**

This review also points to a need to develop and extend the available theories by incorporating a temporal element, for example, by employing a longitudinal design or adopting an episodic framework. Time is an incredibly important phenomenon in organizational research and it can be modeled in several ways (Mitchell & James, 2001). In the contexts in which work-nonwork balance plays out, the role-related and individual constructs are not stable across all time periods. For example, task demands and relational conflicts that individuals have in both

their work and family domains fluctuate across different days (Ilies et al., 2007). That is, how we think, feel, and behave in response to changeable stimuli are not constant or invariant but instead are contingent on contextual influences within specific windows of time (Bolger, 1989). As Maertz and Boyar (2012) emphasized, both level- and time- assessments of work-nonwork balance are equally important for developing our knowledge of work-nonwork balance. Thus, the cross-sectional perspective of work-nonwork balance that has dominated research in this area so far only partially explains the general patterns of balance across people (Bolger, Davis, & Rafaeli, 2003). A perspective of focusing on the temporal nature of work-nonwork balance helps us draw valuable insights into the variances within individuals across time and situations (Bolger & Schilling, 1991). Ultimately, the within-person conceptualization and operationalization of work-nonwork balance will aid theory building by avoiding the nomothetic fallacy that assumes that what is true at the between-person level is also true at the within-person level (Conner, Barrett, Tugade, & Tennen, 2007).

However, a majority of the existing research has employed a cross-sectional design in regard to attempting to understanding work-nonwork balance and only a few studies have used longitudinal or diary studies in regard to examining the dynamic characteristics of work-nonwork balance (e.g., Bass et al., 2009; Drenzo et al., 2015). As a consequence, we know relatively little about whether or how work-nonwork balance changes and the patterns of stability over time. Little is also known of how transient antecedents (i.e., work and nonwork factors) explain the changes in work-nonwork balance. Given that most studies mainly focus on the experience of work-nonwork balance at one point in time, we know very little about the potential for within-subject causal processes and phenomenology of work-nonwork balance over time and events. Therefore, future researchers should explore the neglected temporal dimensions and the within-

person variations in the experience of work-nonwork balance. Some example questions could be as follows. Will work-nonwork balance be contingent on time? If yes, what is the changing pattern? What aspects in the work and nonwork domains explain the change in work-nonwork balance? How does a fluctuating work-nonwork balance contribute to other organizational, relational, and/or personal outcomes across time? In order to adequately portray the dynamic nature of work-nonwork balance, theories capturing the fluctuating nature of persons need to be developed and introduced in future research. For example, theories such as Cognitive and Affective Processing System Theory (Mischel & Shoda, 1995) and Affective Events Theory (Weiss & Cropanzano, 1996) may be combined with the traditional work-nonwork balance theories to offer a richer explanation of the balance phenomenon by incorporating more event- and time-based elements.

Scholars should also fully explore the potential of existing theories to explain work-nonwork balance. One example is COR theory that has been increasingly used and cited in work-nonwork research. Traditionally, COR theory has been used in work-nonwork research to emphasize the emergence of strain because of potential or actual resource loss, but only a few studies have also mentioned the resource gain perspective of COR theory that explains how people actively invest current resources in order to gain additional valuable resources. In addition, COR theory is a dynamic theory at its very core and incorporates the idea of resource fluctuation. Few research studies have examined changes in resources using COR theory (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). In a recent review of COR theory, Halbesleben et al. (2014) proposed potential trajectories for resources to take across time (i.e., basic resource fluctuations, resource cycles, and resource passageways), but none of the current studies have attempted to apply the temporal aspect of COR theory within the work-nonwork balance arena.

If they were to do so, then we could observe the underlying and dynamic patterns of work-nonwork balance and accordingly provide valuable insights and suggestions to employees and organizations.

### **Emphasizing the Person-Centric Approach**

This review indicates that perceptions of balance matter and there is no such thing as an objective measure of balance. Furthermore, research should fully consider people with different personalities, life priorities, preferences in connecting work and nonwork domains, and levels of psychological resources and barriers in balancing work and family roles. Unfortunately, very few scholars have attempted to clarify the meaning of work-nonwork balance under these different scenarios. Existing research on work-nonwork balance seems fairly lopsided in that most of the studies have focused on dual-earner couples or couples in a nuclear family. Unfortunately, individuals with other living and caregiving arrangements have received little attention. As pointed out by Kossek (2013) and Greenhaus and Allen (2012), there is not a ‘one-size-fit all’ formula for understanding work-nonwork balance. Thus, we encourage scholars to take a person-centric approach to theorizing and measuring work-nonwork balance.

One more person-centric element that has been missing in work-nonwork balance research is the role of self-regulatory resources. Instead of considering individuals as passively performing their roles in organizations, scholars contend that employees are likely to actively shape and redesign their role obligations. Job crafting, which indicates employees’ active behavior in regard to redesigning their tasks and relationships at their workplaces (Wrzesniewski & Dutton, 2001), is a good example of these proactive, self-initiated and self-regulatory resources. Examining the role of these positive and proactive, self-regulatory resources in the

context of work-nonwork balance may provide important insights for managers to train employees for achieving work-nonwork balance.

Another important point is that, if it turns out that these regulatory skills are important and can be trained, organizations should provide intervention programs to improve expected outcomes. Unfortunately, we have not witnessed an abundance of research that demonstrates the desired relationship between self-regulatory resources and work-nonwork balance (Abendroth & Dulk, 2011; Allen & Kiburz, 2012). However, the full potential is yet to be tapped. In conclusion, it is extremely important for researchers to keep in mind that no matter how work-nonwork balance researchers aim to frame this construct, it needs to be person-centric instead of relying on an organization-centric or standardized approach.

### **Considering Multi-Level Resources**

Resources, especially formal and informational resources provided by organizations, are important for employees when attempting to balance work and nonwork roles. However, this review has identified some perplexing, inconsistent, and counterintuitive results for the relationship between resources and work-nonwork balance. It is taken for granted that external resources (both instrumental and emotional resources) are helpful in balancing work and nonwork domains, but this review showed that some resources are not significantly related to work-nonwork balance, while others even play a deleterious role (e.g., Olsen & Dahl, 2010; Yulie et al., 2012). Indeed, the contradictory findings probably are due to the inconsistent measurements of work-nonwork balance, but we should not ignore the fact that our understanding of the characteristics and structures of resources is still inadequate. Moreover, the extensive research discussing the role of various resources in work-nonwork balance seems to be



fragmented and unsystematic. Therefore, it is hard to draw a systematic understanding of the multiple resources that individuals use to balance their work-nonwork roles.

One suggestion for future research is to consider resources that reflect both macro- and micro-level perspectives. An example of a macro-level resource could be the availability of work-nonwork friendly policies. The availability and usage of these policies may explain the variance in balancing work and nonwork lives (Allen, Bruck, & Sutton, 2000; Butts, Casper, & Yang, 2013). The perception of family-supportive supervision also contributes to the understanding of work and nonwork balance. However, we should emphasize the importance of adopting a person-centric approach. The basic assumption we need to challenge is: do these work-nonwork balance organizational initiatives adequately fit each employee's values and goals? As mentioned earlier, work-nonwork balance should not be viewed as a standard, 'one-size-fits-all' approach, but should be reflective of different life stages, priorities, and other personal factors. Some studies have reported family friendly policies backfiring among single employees who are expected to work long hours and commit to travelling assignments at a short notice and also failing to appeal to employees who prefer to segment their work and nonwork domains (e.g., Casper, Weltman, & Kwesiga, 2007). It is probably the reason of why we find so many inconsistent findings on the relationship between macro-level resources, such as family friendly initiatives, and work-nonwork balance.

In addition, scholars can incorporate meso- and micro-level resources and see how these resources contribute to work-nonwork balance. The self-regulatory behaviors of job crafting could be an example of micro-level resources for achieving work-nonwork balance. Moreover, it is possible that the resources mutually interact with one another in either a beneficial or deleterious way. As COR theory posits, resources could mutually impact each other and create

either a resource gain spiral or a resource loss spiral (Halbesleben et al., 2014). Future research could consider the different layers of resources and what combination of these resources may best help employees with different motives, goals, and preferences balance their work and personal lives.

### **Emphasizing the Nonwork Domains**

Another prominent finding that has emerged in this review is the under-researched role of nonwork factors on work-nonwork balance. Although studies have advocated the importance of considering nonwork influences on balance especially family-related factors (i.e., the relationship between family-to-work conflict and facilitation and work role performance and behaviors), little is known about the parallel set of family-related features and dynamics that are related to work-nonwork balance. Integrating what we have discussed above, it is evident that a need exists to include the assessment of the relationship between nonwork-related resources and work-nonwork balance. Meanwhile, given that work-nonwork balance can be shaped as a dynamic construct, it is incredibly important to consider the episodic events and individual responses in the nonwork domain. In this way, we can begin to confidently understand how work-nonwork balance is explained by fluctuations in work and nonwork factors.

### **Including the Cultural Contexts**

As shown in the review, few of the work-nonwork balance studies were conducted outside of the United States (e.g., Haar, 2014). Additionally, in the few studies that have considered work-nonwork balance in samples from other countries (e.g., Beham, Prag, & Drobnic, 2012; Lyness & Kropf, 2005; Parkes & Langford, 2008), cross-cultural influences were not their primary interest. Consequently, it is important to incorporate culture into the current

work-nonwork balance research. For example, the meaning of work-nonwork balance may differ across individualistic and collectivistic countries. Meanwhile, the close ties among the family members in a collectivistic culture may provide extra demands and resources for employees under this context (e.g., Powell, Francesco, & Ling, 2009). In countries with high levels of masculinity, individuals, organizations, and societies may pay less attention to work-nonwork balance than countries with high levels of femininity. I recommend that researchers conduct a qualitative or quantitative comparative study to investigate the nature of work-nonwork balance in different cultural contexts and explore the role of cultural characteristics on the occurrence of, and changes in, work-nonwork balance.

### **Conclusion**

This review provided a comprehensive summary of the existing empirical research on work-nonwork balance and offered recommendations based on gaps and opportunities identified based on my assessment of the literature. Although a number of studies have contributed to the theoretical advances within the work-nonwork balance arena, our current understanding of this topic is still limited and needs additional development and refinement. I hope that this review will serve as a foundation to broaden the scope of work-nonwork balance and encourage scholars to offer more rigorous theoretical and empirical studies with clear, robust definitions and well-delineated antecedents and outcomes of work-nonwork balance.

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## **Essay 2: The Effects of Negative Work Events on Daily Satisfaction with Work-Family Balance<sup>3</sup>**

Work-family balance has attracted a great deal of attention in the popular press and academic journals (Greenhaus, Ziegert, & Allen, 2012; Grzywacz & Carlson, 2007). In a recent national survey, work-family balance has been cited as a major concern for both male and female employees in contemporary workplaces (Citi & LinkedIn, 2013). The reason for this concern is evident – work-family balance is vital to employees' performance and other desirable outcomes in both work and family domains (Ferguson, Carlson, Zivnuska, & Whitten, 2012; Kim, 2014; O'Driscoll, Brough, & Biggs, 2007; Vanderpool & Way, 2013). Despite the proliferation of various definitions and measurements (O'Driscoll et al., 2007), our knowledge about this important topic is limited.

Although a growing number of work-family studies have emphasized the role of time in the work-family interface (Shockley & Allen, 2013), the temporal nuances of work-family balance have not been rigorously or widely explored. Scholars have been aware of the role of time in applied psychology, but the majority of studies still pay little attention to temporal facets in their research questions, models, and results (see Roe, 2008 for a review). In the work-family literature, studies have characterized work-family balance as a constant and timeless phenomenon without considering its dynamic aspects (Grzywacz, Butler, & Almeida, 2008). Recent research, however, calls for more attention on the changeable pattern of work-family balance (Roe, 2008) and suggests an alternative perspective that explores the dynamic, episodic nature of work-family balance (Butler, Bass, & Grzywacz, 2009; Kossek, Valcour, & Lirio, 2014;

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<sup>3</sup> In Essays 2 and 3, I focus on work-family balance because it emphasizes the processes between two domains (i.e., work and family) that are rigorous for theorizing.



Maertz & Boyar, 2011). Although we have witnessed the emergence of dynamic work-family research, existing studies have not provided any theoretical foundations or empirical evidence to explain how work-family balance is dependent on time. Thus, we understand little of how to interpret the dynamic facet of work-family balance theoretically and empirically. Examining work-family balance through an episodic lens is important because it helps us to know “what happens” instead of “what it is” (Roe, 2008, p. 40) and allows us to observe changes in work-family balance in response to different situations and times (Ohly, Sonnentag, Niessen, & Zapf, 2010). As Maertz and Boyar (2011) pointed out, an episode-oriented approach provides an accurate theoretical foundation and better explanation of how employees psychologically perceive and process work-family balance.

In this study, I conceptualize and assess work-family balance as an episodic phenomenon. Consistent with this approach, I adopt a work-family balance definition that reflects this orientation. Specifically, I define work-family balance as a global assessment of individuals’ levels of satisfaction in regard to handling their work and family demands on a daily basis (Valcour, 2007). This definition represents a succinct global evaluation of how people manage their life demands and “offers unique utility” (Valcour, 2007, p. 1514). I chose this appraisal-centered definition for two reasons. First, like other satisfaction variables (i.e., job satisfaction), satisfaction with work and family balance elucidates individuals’ subjective appraisals that are likely to fluctuate on a day-to-day basis. Second, this definition is comprehensive in that it covers key aspects of other work-family balance definitions. For example, satisfaction with work-family balance reflects people’s beliefs that they can successfully allocate limited time, attention, and energy between work and family demands (Grawitch, Barber, & Justice, 2010; Grawitch, Maloney, Barber, & Mooshegian, 2013; Valcour, 2007). It also represents the fit

between individuals' life priorities and the way they manage their multiple life demands (Casper, De Hauw, & Wayne, 2013).

Although a few studies have used a daily diary approach to examine work-family balance (Butler et al., 2009; Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010), our understanding of this phenomenon is incomplete and several issues remain. First, we know that work-family balance is dynamic in nature, but little is known about *what* accounts for the changes in work-family balance over time. Current theorizing and models of work-family balance are typically based on the between-person perspective and it is not clear whether the same set of factors and conditions examined in these studies are applicable for explaining work-family balance as it plays out across a given time. The purpose of this study is to clarify how experiences at work influence employees' satisfaction with work and family balance on a daily basis. The theoretical foundation for the study involves an integration of two theoretical frameworks: Cognitive and Affective Processing System (CAPS) theory (Mischel & Shoda, 1995) and Conservation of Resources (COR) theory (Hobfoll, 1989). CAPS theory captures the within-person differences of how individuals psychologically react to external stimuli at the workplace. In regard to the thoughts, feelings, and behaviors of individuals as they respond to situational factors, COR theory broadly suggests that potential or actual resource losses may result in psychological strain and impair individuals' well-being (Hobfoll, 1989). It also suggests that people are likely to invest current resources to accumulate valuable resources (Hobfoll, 2002). Together, these two theories capture both direct and indirect within-person processes, whereby employees experience satisfaction with work-family balance.

Although both work and family events may trigger satisfaction with work-family balance, I focus only on work-related inputs within the work-family interface literature. The work domain

contributes the most to work-family conflict, facilitation, and enrichment (e.g., Kossek et al., 2014). In particular, I consider only negative work stimuli because this type of stimuli is more influential on people's well-being than positive stimuli (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Negative work events have been broadly categorized as task and relational events (Butler et al., 2009; Ilies, Johnson, Judge, & Keeney, 2011). The negative work task events that I examine in this study include work task overload and time pressure, both of which capture events that are likely to occur on a daily basis (Almeida & Kessler, 1998) and explain the within-person variability in work-family balance. Work task overload refers to the extent to which employees feel that there are too many responsibilities or activities expected of them in light of the time available, their abilities, and other constraints (Rizzo, House, & Lirtzman, 1970). Work time pressure is defined as the extent to which employees experience the need to work at high speeds in order to fulfill all of their work tasks (Kinicki & Vecchio, 1994).

I also consider one negative relational work event: interpersonal conflict. Interpersonal conflict refers to negative interpersonal encounters characterized by a contentious exchange, hostility, or aggression with supervisors and/or coworkers (Keenan & Newton, 1985). This conflict is likely to vary within persons, possibly over time, and contribute to individuals' overall well-being as well as satisfaction with work-family balance on a daily basis (Butler et al., 2009).

To clarify the intricacies of how negative work events influence work-family balance, I consider two indirect mechanisms. Scholars have suggested that individuals' cognitive and affective processes may mediate the relationship between events and individuals' well-being (Fritz & Sonnentag, 2006; Ilies et al., 2007). Thus, I examine the mediating effects of negative work reflection and negative affect on the relationships between negative work events and employees' work-family balance. Negative work reflection can be most simply understood as

rumination after work, which refers to “a class of thoughts that revolve around a common instrumental theme and that recur in the absence of immediate environmental demands requiring the thoughts” (Martin & Tesser, 1996, p. 1). Here, the common instrumental theme represents negative work events. Negative affect is state-based and refers to subjectively experienced affective states, reflecting the current status of individuals in relation to their environments (Parkinson, 1996).

I also investigate whether individuals’ self-regulatory behaviors, in terms of job crafting, buffer the relationship between work events and work-family balance. Job crafting refers to individuals’ proactive bottom-up behaviors whereby employees redesign their jobs to match their personal motives, goals, and passions (Wrzesniewski & Dutton, 2001). As an important personal resource that benefits employees’ engagement and performance (e.g., Bakker, Tims, & Derks, 2012), job crafting may be helpful in attenuating the negative effects of negative work events on employees’ psychological reactions and work-family balance.

This study contributes to work-family balance literature in several ways. First, using key ideas from CAPS and COR theories, such as fluctuations in resource loss, this study demonstrates a theoretical path that links negative work task and relational events with satisfaction with work-family balance. Second, I shed light on the ‘black box’ that lies between negative work events and work-family balance by illuminating the role of individuals’ cognitive and affective reactions to work events. To my knowledge, this study is the first one of its kind to simultaneously include negative cognitive appraisals and affective reactions as mediating factors. In addition, from a self-regulatory perspective, this study accesses whether individuals’ job crafting is helpful in regard to buffering the resource loss process that occurs as a result of negative work events. The findings from this study provide insights into the relationship between

work events and work-family balance and these insights have implications for future research as well as the practice of management.

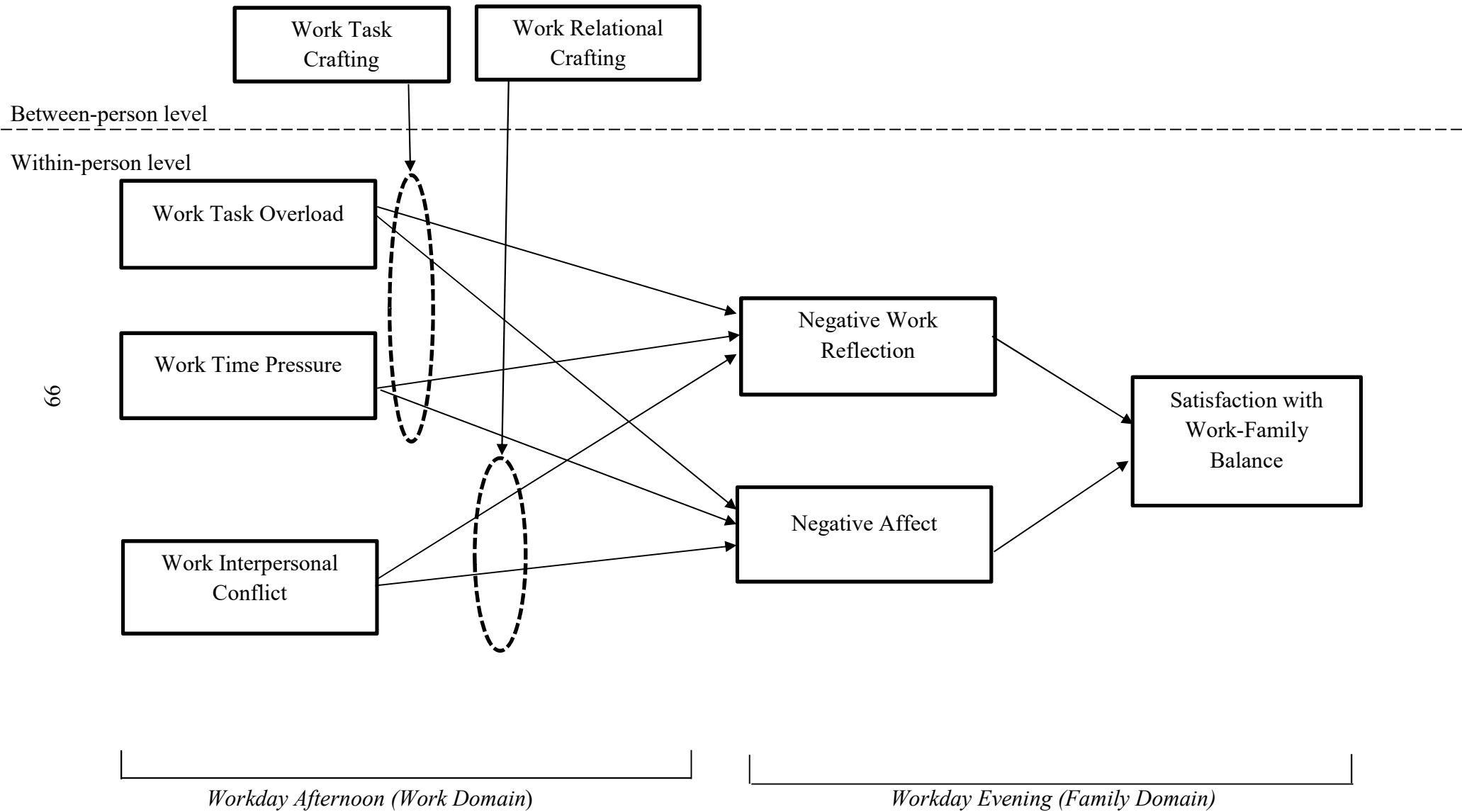
### **Theories and Development of Hypotheses**

In this study, I aim to clarify the direct and indirect relationships among negative work events, individuals' psychological reactions, and satisfaction with work-family balance on a daily basis (See Figure 1). The proposed dynamic processes between work relevant events, cognitive and affective reactions, and work-family balance are based on an integration of CAPS (Mischel & Shoda, 1995) and COR theories (Hobfoll, 1989). According to CAPS theory, individuals respond differently toward the experiences and events that occur at work. That is, various work experiences and events elicit the occurrence of certain cognitive and affective processes, such as encodings, affects, expectancies and beliefs, goals and values, and competencies and self-regulatory plans. These cognitive and affective processes are expected to mediate the effects of work events on thoughts and behaviors (Mischel & Shoda, 1995). CAPS theory is an appropriate approach for identifying the intrapersonal dynamics of how one thinks, feels, and acts (Shoda, Wilson, Whitsett, Lee-Dussud, & Zayas, 2015). Thus, it is useful in regard to explaining why work relevant events determine work-family balance through two cognitive and affective elements: cognitive reflection and affect.

In addition, I integrate the above ideas with COR theory to demonstrate the nature of the resource changes triggered by the events and subsequent cognitive and affective responses. COR theory argues that people have a natural tendency to obtain, retain, and protect valued resources (Hobfoll, 1989). Within that basic framework, there are two primary operations that take place with respect to changes in resources. One is a resource loss perspective, which indicates that the actual or potential resource loss may produce impaired outcomes. The other is a resource gain

perspective, which suggests that individuals tend to invest their resources in obtaining valuable resources (Hobfoll, 2002). Based on COR theory, the negative triggers that occur in the workplace could be treated as a cue for resource loss, leading to a negative influence on cognitive and affective processes, which in turn hurt the assessment of work-family balance. Integrating CAPS and COR theories is appropriate because both theories are dynamic in nature and can be used to address and explain how within-person fluctuations of resource losses and gains can trigger specific cognitive and affective responses, which subsequently change the assessment of one's daily work-family balance. In addition, I use COR theory to explore whether job crafting (i.e., task and relational crafting), serving as an important resource investment, will help attenuate the detrimental effects of negative work events on individuals' psychological reactions.

Figure 1 Conceptual Model



## Negative Work Events and Negative Work Reflection

Drawing upon CAPS and COR theories, I propose that negative work events, both task and relational, may trigger the negative cognitive reaction (i.e., negative work reflection). Task overload represents overwhelming task duties that tend to exacerbate negative cognitive and affective outcomes (Williams & Alliger, 1994). Time pressure is the extent to which individuals experience the need to accomplish all work tasks in a rapid manner (Baer & Oldham, 2006). CAPS theory suggests that certain situations at the workplace, such as work task overload and time pressure, are likely to stimulate cognitive and affective units (Mischel & Shoda, 1995). Moreover, according to COR theory, the emergence of daily task overload and time pressure requires additional personal resources, such as time and energy, to be invested for work. Feeling overwhelmed by daily workplace pressures and excessive demands may trigger efforts to protect against a further loss of resources, which may leave individuals filled with negative thoughts about the work domain. In line with CAPS and COR theories, daily work overload and time pressure represent stimuli that trigger cognitive reactions. Cognitive reactions are negative if the overwhelming work-related events lead to the depletion of personal resources.

Theories of rumination (Martin, Tesser, & McIntosh, 1993; Nolen-Hoeksema, 1991) also indirectly support this relationship. Rumination occurs after people experience stressful events (Alloy et al., 2001) such as failing to progress satisfactorily toward goals (e.g., dealing with work demands ideally), and thus triggers negative work reflection. Support for these relationships comes from several between-person and within-person studies, which found that work stressors and rumination were positively related (Cropley, Dijk, & Stanley, 2006; Cropley & Purvis, 2003; Elfering et al., 2005). For example, several studies focused on within-person assessments have consistently reported significant relationships between daily stressful events (e.g., task overload)



and individuals' negative outcomes (Almeida, 2005; Almeida & Kessler, 1998; Bolger, DeLongis, Kessler, & Schilling, 1989). Höge (2009) reported a positive association between time pressure and rumination in a cross-sectional study. In a diary study, Cropley and Purvis (2003) found that teachers whose jobs were characterized by high levels of strain with high work demands, but low controls at work were more likely to ruminate about work-related issues in the evening after work.

Compared to research on the relationship between task events and individuals' cognitive and psychological reactions, studies discussing the dynamic processes between negative relational events at work and cognitive and affective responses are still relatively scarce despite their presumed importance (Ilies et al., 2011). In order to fill this gap in our understanding, I examine work interpersonal conflict that is likely to trigger negative work reflection and negative affect. Work interpersonal conflict is the relational event that occurs in the workplace and can trigger negative work reflection and negative affect. Although interpersonal conflict may include task (i.e., disagreements about the work to be done) and relationship conflicts (i.e., personal conflict attributed to the conflict partner that generate feelings of animosity) (Jehn, 1995), I treat them as a global interpersonal conflict that occurs between target employees and their coworkers and that includes both task and relationship conflicts. A large body of research has shown that interpersonal conflict is deleterious at work (e.g., Spector & Bruk-Lee, 2008). Guided by CAPS and COR theories, it is assumed that tensions and conflicts with colleagues can trigger cognitive reactions in terms of negative work reflection at the end of the work day (Mischel & Shoda, 1995) and that this work reflection would be negative in that people lose their personal resources, such as time and energy for work (Hobfoll, 1989) when dealing with the undesired relational conflict.

Based on the tenets of CAPS and COR theories and the empirical research reviewed above, I propose that:

*Hypotheses 1a-c: Within individuals, negative work events in terms of (a) work task overload, (b) work time pressure and (c) work interpersonal conflict will be positively related to negative work reflection, such that on the days when employees experience high negative work events, the level of negative work reflection will be higher compared to days when the level of their negative work events is low.*

### **Negative Work Events and Negative Affect**

I also use theories of CAPS and COR to explain the links between negative work task events and negative affect. Overwhelming workloads and intensive time pressure activate not only people's cognitive reactions, but also their affective reactions. These occurrences of work task overload and time pressure elicit a depletion of resources in terms of negative affective reactions as individuals have to invest more personal resources in order to deal with work tasks (Hobfoll, 1989), which may make them upset or anxious, signs of negative affect. Consistent with this theoretical reasoning, a growing body of empirical research has confirmed a positive relationship between workload and negative affect (e.g., Geurts, Kompier, Roxburgh, & Houtman, 2003). With regard to within-person studies, scholars have also found that daily work overload and time pressure determined individuals' affective changes across different time periods (Ilies et al., 2007; Teuchmann, Totterdell, & Parker, 1999).

In line with the theorizing, it has been argued and supported that interpersonal conflict is a stressful job demand that produces distress and strain (Karasek, 1979). Negative affect can be conceived as a psychological strain that occurs in response to interpersonal conflict. An

overwhelming number of within-individual and between-individual studies have consistently reported a significant and positive relationship between interpersonal conflict and negative affective reactions (Bolger et al., 1989; Ilies et al., 2011; Watson, Clark, & Tellegen, 1988). Guided by CAPS and COR theories, I predict a positive relationship between interpersonal conflict and negative affective states. Disagreements about tasks and personal tensions with colleagues can trigger immediate, affective reactions, such as anxiety or psychological distress. The occurrence of interpersonal conflict may also be considered as a stressor, which implies that it is a threat to the accomplishment of work goals and maintenance of harmonious social relationships within teams and organizations (Lazarus, 1999). This stressful threat is enough to trigger a loss of resources at the workplace and account for the emergence of negative affect (Hobfoll, 1989). Therefore, I propose that:

*Hypotheses 2a-c: Within individuals, negative work events in terms of (a) work task overload, (b) work time pressure and (c) work interpersonal conflict will be positively related to negative affect, such that on days when employees experience high negative work events, the level of negative affect will be higher compared to days when the level of their negative work events is low.*

### **Cognitive and Affective Reactions and Satisfaction with Work-Family Balance**

In this section, I contend that negative cognitive and affective reactions will have direct effects on satisfaction with work-family balance. The cognitive appraisal of negative psychological reactions may decrease the overall level of resources and reduce perceptions of work-family balance. Although no studies have directly tested how negative work reflection hurts work-family balance, we can find indirect evidence to support this argument. For example,

some scholars have reported that a mindfulness intervention as a cognitive-segmentation strategy had a positive impact on work-life balance, such that the individuals who were able to psychologically switch off their preoccupations with work reported higher levels of work-life balance compared to those individuals who continued to ruminate about work (Michel, Bosch, & Rexroth, 2014). Guided by COR theory, employees ruminating on their unpleasant work events may experience resource depletion in the form of their positive energy, which in turn will impair satisfaction with work-family balance.

Negative affect is conceptualized as a fluctuating affective state in this study, and I propose that it is likely to predict daily work-family balance. Similar to the reasoning presented above, COR theory explains how negative affective reactions contribute to peoples' evaluations of balancing their work and family lives. From a resource deprivation perspective, negative affective reactions represent the loss of psychological resources that are likely to reduce personal evaluations of work-family balance (Hobfoll, 1989). Further support for this reasoning is borne out by mood congruence research, which suggests that the valence of experienced affect may have an impact on the valence of retrieved evaluations (Bower, 1981). In other words, an elevated negative affective state is likely to increase work-family balance. Although some empirical studies have failed to find a relationship between negative affect and work-family balance in the form of work-family conflict and facilitation, these researchers just captured the affect in the morning before the individuals started work, which overlooked how negative affective states would be influenced by negative work events at the end of each work day (e.g., Sanz-Vergel et al., 2010).

*Hypothesis 3a: Within individuals, negative work reflection will be negatively related to satisfaction with work-family balance, such that on the days when employees experience high*

*negative work reflection, the level of satisfaction with work-family balance will be lower, compared to days when their negative work reflection is low.*

*Hypothesis 3b: Within individuals, negative affect will be negatively related to satisfaction with work-family balance, such that on the days when employees experience high negative affect, the level of satisfaction with work-family balance will be lower, compared to days when their negative work affect is low.*

### **Negative Work Events, Cognitive and Affective Reactions, and Satisfaction with Work-Family Balance**

I anticipate that negative work reflection and negative affect will impair the assessment of daily work-family balance. Guided by COR theory, I argue that negative work reflection and negative affect in response to work events (i.e., task overload, time pressure and relational conflict) are depleting cognitive experiences that consume individuals' psychological resources (Fritz & Sonnentag, 2006; Hobfoll, 1989). In line with the above theory and research, I expect that both negative work reflection and negative affect will intervene in the effect of negative work events on work-family balance. Integrating ideas from both CAPS and COR theories, individuals' rumination on negative work experiences after work hours represent a cognitive reactivation of those undesirable work events (i.e., task and relational events) experienced earlier in the day (Hobfoll, 1989; Shoda et al., 2014) setting in motion a resource loss cycle that sets the stage for a negative assessment of overall work-family balance at the end of the work day.

A similar process is expected to play out with respect to negative affect (Hobfoll, 1989). Specifically, negative affective reactions in response to undesirable work events may trigger efforts to combat further resource losses (e.g., energy and time required to deal with anger,

frustration, and anxiety), which may set the stage for negative evaluations of work-family balance at the end of the day. Previous studies have implied the mediating role of mood states in explaining work overload and work-family outcomes (Ilies et al., 2007). In sum, I predict that negative work reflection and affective reactions will be central cognitive and affective mechanisms in regard to explaining how daily work events influence satisfaction with work-family balance.

*Hypotheses 4a-c: Within individuals, negative work reflection will mediate the relationships between negative work events in terms of (a) work task overload, (b) work time pressure and (c) work interpersonal conflict and satisfaction with work-family balance.*

*Hypotheses 5a-c: Within individuals, negative affect will mediate the relationships between work events in terms of (a) work task overload and (b) work time pressure and (c) work interpersonal conflict and satisfaction with work-family balance.*

### **The Moderating Role of Job Crafting**

As a critical self-regulatory resource, job crafting refers to the proactive behaviors that employees actively engage in to redesign their jobs (Wrzesniewski & Dutton, 2001). In challenging the traditional job design theory, job crafting suggests that employees are motivated to customize their jobs to fit better with their goals, motives, and strengths in terms of changing their tasks and interactions with others in the workplace (Berg, Dutton, & Wrzesniewski, 2008). Theories and empirical studies have confirmed that job crafting accounts for a significant increase in desirable work outcomes, such as job satisfaction, engagement, resilience, and thriving at work (Berg, Wrzesniewski, & Dutton, 2010). In the early stages of the development of this construct, scholars have proposed that job crafting is comprised of three dimensions:

aspects of the tasks, relationships, and cognitive views of one's job (Wrzesniewski & Dutton, 2001). In this study, I focus only on task and relational crafting because these two dimensions of job crafting directly correspond to task and relational work events.

Drawing on COR theory, I predict that job crafting may alleviate the positive relationships between undesirable work events and negative work reflection and affective reactions. My reasoning is consistent with COR theory, which implies that job crafting can be regarded as an important and positive personal resource that buffers the individual from daily work-related stresses (Hobfoll, Johnson, Ennis, & Jackson, 2003). Although some studies have started to consider job crafting as a transient, temporal (day-level) construct (Petrrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012), I theorize that job crafting is a relatively stable individual difference variable that is independent of temporal fluctuations. Personal resources in terms of job crafting play a unique role in promoting resistance to stress and, consequently, reducing strains in terms of negative cognitive and affective reactions (Hobfoll, 1989).

One specific aspect of job crafting is task crafting, which is related to task-related proactive activities and expected to buffer the negative impact of task-related events, such as task overload and time pressure on negative work reflection and negative affect. Once employees take charge and deploy their self-regulatory resources that add or reduce the amount and scope of their tasks or change their task accomplishment strategies (Tims, Bakker, & Derks, 2013a), they may be able to reduce the loss of further resources in response to negative and undesirable work events and hence alter their cognitive and affective reactions. Thus, I expect that task crafting will attenuate the effects of undesirable work events on negative work reflection and negative affective states after work time.

In addition, relational crafting allows employees to alter the nature or extent of their interactions with other people at work. Employees with high relationship crafting may be able to communicate proactively with supervisors and coworkers (e.g., express their concerns and thoughts and ask for help), which may help reduce subsequent negative ruminations and unpleasant affective reactions. Moreover, once employees are good at asking for or offering help to coworkers and seeking more positive communication with their colleagues, they may be less likely to take interpersonal tensions personally and recover quickly from conflictual interactions (Ilies et al., 2011). As a consequence, the negative impact of interpersonal conflict on work-related ruminations and negative affect may be attenuated. Consequently, job crafting is a useful personal resource that protects the mental resources consumed by daily work demands (Hobfoll, 2002). Based on the above theoretical reasoning and empirical evidence, I propose the following hypotheses:

*Hypotheses 6a-b: Work task crafting will moderate the relationships between (a) work task overload and (b) work time pressure and negative work reflection, such that the within-individual relationships will be weaker when the level of work task crafting is higher.*

*Hypotheses 7a-b: Work task crafting will moderate the relationships between (a) work task overload and (b) work time pressure and negative affect, such that the within-individual relationships will be weaker when the level of work task crafting is higher.*

*Hypothesis 8a: Work relational crafting will moderate the relationship between interpersonal conflict and negative work reflection, such that the within-individual relationship will be weaker when the level of work relational crafting is higher.*



*Hypothesis 8b: Work relational crafting will moderate the relationship between interpersonal conflict and negative affect, such that the relationship will be weaker when the level of work relational crafting is higher.*

Taken together, Hypotheses 5,6,7, and 8 indicate a mediated moderation process (MacKinnon & Fairchild, 2009), where the moderating effects of job crafting on work events and negative cognitive and affective units' relationships will further reduce the negative effects on work-family balance. The interactions of job crafting and work events represent few resource losses at the workplace, which leads to lower levels of negative ruminations and negative affect after work in response to the day's undesirable work events. Following that, employees are less likely to negatively appraise their levels of work-family balance.

*Hypotheses 9a-b: Within individuals, negative work reflection mediates the moderating effects of work task crafting on the relationships between (a) work task overload and (b) work time pressure and satisfaction with work-family balance.*

*Hypotheses 10a-b: Within individuals, negative affect mediates the moderating effects of work task crafting on the relationships between (a) work task overload and (b) work time pressure and satisfaction with work-family balance.*

*Hypothesis 11a: Within individuals, negative work reflection mediates the moderating effect of work relational crafting on the relationship between interpersonal conflict and satisfaction with work-family balance.*

*Hypothesis 11b: Within individuals, negative affect mediates the moderating effect of work relational crafting on the relationship between interpersonal conflict and satisfaction with work-family balance.*

## Method

### Participants and Procedure

To test the proposed model indicating that work-related events and satisfaction with work-family balance are not uniform across all days, I conducted a daily diary study that spanned one full week. Data were collected through Qualtrics, a third-party online survey administration company. I initially contacted 12,853 individuals, of whom 594 agreed to participate. In order to participate in the survey, the participants had to 1) be full-time corporate employees working and living in the United States, 2) work a non-shift schedule, 3) be non-telecommuters, and 4) not be committed to any business travel plans during the survey week. After screening out the ineligible participants, I had 206 valid respondents.

The online data collection included two parts. First, one week before the diary surveys, the participants filled out the baseline survey, including their demographic information and trait-like variables. One week later, diary surveys were administered at three time points per day (i.e., 10:00 a.m. CST, 3:00 p.m. CST and 5:00 p.m. CST). At each of these times, Qualtrics sent out SMS reminders and specific links to the participants. The participants needed to complete the surveys within two hours after receiving their links. In the daily surveys, the participants responded to all of the items based on how they felt or acted at each point during the current week. As compensation, the participants received a basic \$0.50 for each completed survey and an additional bonus<sup>4</sup> if they completed all of the surveys on time.

During the data cleaning process, I deleted those respondents who did not complete the surveys on two independent days. This decision was suggested by Nezlek (2012) that, for multi-

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<sup>4</sup> Participants received 1) \$2.50 if they completed 10-16 daily surveys on time, 2) \$7.50 if they completed 17-20 daily surveys on time and 3) \$15 if they completed all 21 daily surveys on time.

level analysis, the minimum number of the level one observations at the level two unit should be two. In a diary study, if people provided only one day of data, it would be hard to distinguish within- and between-person variance. Since I was interested in the immediate, short-term influences of negative work events on ensuing cognitive and affective reactions and satisfaction with work-family balance, completing the surveys on time was important for the validity of the study (McCabe, Mack, & Fleeson, 2011). I thus deleted the participants who did not fill out the surveys within two hours of receiving the reminders and links. As a result, the sample was narrowed to 107 individuals.

Further, I measured negative work events in the afternoon in order to predict cognitive and affective reactions and satisfaction with work-family balance in the evening because creating this short time lag helped to eliminate artificial inflation (Podsakoff, MacKenzie, & Podsakoff, 2012). I deleted 34 participants who failed to complete the afternoon or evening surveys on the same day. In addition, I deleted the participants who did not go to work any day or who did not come home after work. In this way, I ruled out alternative situations and possibly uncontrolled influences in which 1) the participants did not experience work task or relational events at the work place and/or 2) the participants worked overtime at the workplace and could not recall the negative experiences of work when at home. After finishing the full data cleaning process, the sample contained 73 participants with 213 valid observations.

The participants were from various industries, including health care, education, IT software, financial services, entertainment (e.g., retail, restaurant, and hotel), manufacturing, agriculture, construction, and local government. The demographics were broken down as follows: 30% were male; the average age was 40.30 years; 65.8% were married; 64.4% have children

under 18; 71.2% received bachelor's degree or above; 30.1% were managers; 69.9% were non-managers.

### **Baseline Survey**

*Work task crafting* was measured with a six-item scale developed by Tims, Bakker and Derks (2012). In the original scale, Tims and his colleagues developed four sets of job crafting scales for 1) increasing structural resources, 2) decreasing hindering demands, 3) increasing social resources and 4) increasing challenging demands. I chose the decreasing hindrance demands scale because both task overload and time pressure are framed as hindrance and task-related demands that impair people's cognitive and negative reactions and satisfaction with work-family balance in this study. An example item is "To what extent have you organized your work in such a way to make sure that you do not have to concentrate for too long a period at once?" Participants provided their answers on the scale ranging from 1 (not at all) to 5 (all of the time). Cronbach's alpha was .82.

*Work relational crafting* was measured with the five-item sub-scale for increasing social resources developed by Tims et al. (2012). I chose this scale because it was consistent with the theorizing in that people invest additional social resources to attenuate the positive effects of work interpersonal conflict on individuals' psychological reactions. An example item is "To what extent have you asked your supervisor to coach you?" The scale ranged from 1 (not at all) to 5 (all of the time). Cronbach's alpha was .83.

*Demographic variables.* I controlled the demographic variables such as gender (0=male and 1=female), age, marital status (0=non-married and 1=married), parental status (0=no children and 1=having children under 18 living with the participants), and managerial position

(0=non-manager and 1=manager) as controls. These factors may influence employees' satisfaction with work-family balance (Carlson, Grzywacz, & Zivnuska, 2009; Drenzo, Greenhaus, & Weer, 2015; Michel et al., 2014).

### **Daily Survey Measures**

Negative work events were measured in the afternoon surveys (deployed at 3:00 p.m. and closed at 5:00 p.m.) while negative work reflection, negative affect and satisfaction with work-family balance were measured in the evening surveys (deployed at 7:00 p. m. and closed at 9:00 p. m.). The time lag helped to establish causality since the predictors and outcomes were not collected at the same time.

*Satisfaction with work-family balance (evening)* was assessed using Valcour's (2007) five-item scale. A sample item includes "This evening, I've felt satisfied with the way I divided my time between work and personal or family life." All items were rated on a five-point Likert scale (1=not at all and 5=all of the time). Cronbach's alpha was .97.

*Negative work reflection (evening)* was measured with a three-item scale developed by Fritz and Sonnentag (2006). A sample item includes "This evening, I've realized what I do not like about my work life." All items were assessed on a five-point Likert scale (1=not at all and 5=all of the time). The scale had a Cronbach's alpha of .98.

*Negative work affect (evening)* was assessed in a shortened version of Watson, Clark and Tellegen's (1988) Positive and Negative Affect Scale, in which ten items were used for measuring negative affect. In order to keep the daily survey as short as possible and capture negative affect that best represents the negative affective processes in the model, I followed Matta et al.'s (2014) suggestion and adapted three items for the diary surveys: irritation,

nervousness, and distress. I chose these three items because they were most typical negative emotions that were hedonic in tone and high in intensity (Remington, Fabrigar, & Visser, 2000). A sample item is “This evening, I’ve felt nervous.” The three items were rated on a five-point Likert scale (1=not at all and 5=all of the time). Cronbach’s alpha was .83.

*Work task overload (afternoon)* was assessed using a three-item scale developed by Schaubroeck, Cotton, and Jennings (1989). A sample item is “This afternoon, the amount of work I was expected to do has been too great this afternoon.” The items were rated using a five-point Likert scale (1=strongly disagree and 5=strongly agree). Cronbach’s alpha was .90.

*Work time pressure (afternoon)* was measured by a three-item scale from Semmer (1984). A sample item is “This afternoon, I’ve faced time pressure.” A five-point Likert scale (1=strongly disagree and 5=strongly agree) was used to rate these items. Cronbach’s alpha was .86.

*Work interpersonal conflict (afternoon)* was measured by Ilies, Johnson, Judge, and Keeney’s (2011) five-item scale. A sample item is “This afternoon, I’ve had a fight with my coworkers over a work-related issue.” The items were rated on a five-point Likert scale (1=strongly disagree and 5=strongly agree). Cronbach’s alpha was .94.

*Controls.* At the within-person level, I controlled for positive affect in the afternoon and in the evening as previous research indicates that immediate or time-lagged positive affect will influence people’s negative affect at home (Fredrickson & Levenson, 1998). Positive affect was measured by a shortened version of Watson, Clark and Tellegen’s (1988) Positive and Negative Affect Scale. The three items were enthusiastic, excited, and inspired. A sample item is “This evening, I’ve felt enthusiastic.” Ratings were on a five-point Likert scale (1=not at all and 5=all

of the time). Cronbach's alphas for positive affect in the afternoon and in the evening were .91 and .90, respectively. I also controlled for negative affect in the afternoon because it may confound the hypothesized relationships (Dimotakis, Scott, & Koopman, 2011). The Cronbach's alpha for the negative affect in the afternoon was .78. Moreover, I controlled for satisfaction with work-family balance in the afternoon at work since it may spill over and contaminate the assessment of satisfaction with work-family balance in the evening. Cronbach's alpha for satisfaction with work-family balance was .97.

### **Preliminary Analysis**

Since the data has a hierarchical structure containing both between-person and within-person level variables, I conducted hierarchical linear modeling (HLM) approach with the software HLM 6.0 (Bryk, Raudenbush, & Congdon, 1996). For this approach, I used random coefficient modeling to test the proposed model. I centered the within-person variables around the individuals' means, indicating all between-person variance in these variables was removed (Nezlek, 2012; Ohly et al., 2010). Between-person variables were grand-mean centered. The within- and between-person inter-correlations are shown in Table 1. As expected, satisfaction with work-family balance was negatively correlated with negative work reflection, negative affect, and task and relational work events. However, the correlations between satisfaction with work-family balance and two types of job crafting, i.e., task and relational crafting, were also negatively correlated.

Table 1 Means, Standard Deviations, Internal Consistencies (Cronbach's Alpha), and Intercorrelations

Variable		Mean	s.d.	1	2	3	4	5	6	7
<i>Level 1 (Within-person)</i>										
1	Satisfaction with Work-Family Balance (Evening)	3.86	.93	(.97)						
2	Negative Work Reflection (Evening)	2.14	1.17	-.60**	(.98)					
3	Negative Affect (Evening)	1.56	.76	-.43**	.47**	(.83)				
4	Work Role Overload (Afternoon)	2.33	1.05	-.38**	.45**	.29**	(.90)			
5	Work Time Pressure (Afternoon)	2.55	1.05	-.34**	.39**	.33**	.68**	(.86)		
6	Work Interpersonal Conflict (Afternoon)	1.31	.68	-.34**	.39**	.47**	.37**	.33**	(.94)	
7	Satisfaction with Work-Family Balance (Afternoon)	3.80	.93	.68**	-.53**	-.39**	-.45**	-.40**	-.36**	(.97)
8	Negative Affect (Afternoon)	1.63	.76	-.43**	.52**	.59**	.43**	.45**	.51**	-.58**
9	Positive Affect (Afternoon)	2.72	.97	.16*	-.34**	-.11	-.17*	-.19**	-.15*	.23**
10	Positive Affect (Evening)	2.82	.99	.27**	-.17*	-.18**	-.01	-.10	.01	.14*
<i>Level 2 (Between-person)</i>										
11	Work Task Crafting	2.50	.79	-.30*	.36**	.33*	.33**	.21	.41**	-.35**
12	Work Relational Crafting	2.25	.88	-.04	.02	.26*	.19	.22	.22	-.04
13	Age	40.30	10.09	.17	-.11	-.31**	-.12	-.19	-.19	.20
14	Gender	1.70	.46	-.20	.22	.09	.27*	.18	.08	-.18
15	Marital Status	1.75	1.15	-.05	-.04	.03	-.15	-.11	-.14	.09
16	Parental Status	.64	.48	-.05	.03	-.02	-.09	.02	-.15	-.02
17	Managerial Position	2.70	1.60	.22	-.21	-.15	.00	-.08	-.13	.10



Table 1 Cont'd

	Variable	Mean	s.d.	8	9	10	11	12	13	14	15	16
8	Negative Affect (Afternoon)	1.63	.76	(.78)								
9	Positive Affect (Afternoon)	2.72	.97	-.24**	(.91)							
10	Positive Affect (Evening)	2.82	.99	-.05	.58**	(.90)						
<i>Level 2 (Between-person)</i>												
11	Work Task Crafting	2.50	.79	.41**	.01	.19	(.82)					
12	Work Relational Crafting	2.25	.88	.16	.34**	.30**	.38**	(.83)				
13	Age	40.30	10.09	-.23	.01	-.01	-.19	-.14				
14	Gender	1.70	.46	.20	-.27*	-.19	.05	.04	-.11			
15	Marital Status	1.75	1.15	-.12	.03	-.03	-.05	-.15	-.06	.04		
16	Parental Status	.64	.48	.03	-.16	-.22	-.19	.06	.20	.26*	-.14	
17	Managerial Position	2.70	1.60	-.02	.09	.08	.02	.20	.20	-.16	-.22	.04

Note. N=73 for level 2 and N=213 for level 1; Gender is coded as 0=Male and 1=Female; Marital Status is coded as 0=Not married and 1=Married; Parental status is coded as 0=Have no children and 1=Have children; Managerial status is coded as 0=Non-manager and 1=Manager; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Before testing the hypotheses, I ran a set of unconditional models in HLM to determine the amount of variance that is attributed to either the within- or between-person level. Results indicated that, for the daily dependent variable and mediators, 63.22% of the variance in satisfaction with work-family balance, 71.74% of the variance in negative work reflection and 39.66% of variance in negative affect were at the within-person level. In terms of the daily predictors, results showed that 63.25% of the variance in work task overload, 56.64% of the variance in work time pressure and 63.27% of the variance in work interpersonal conflict was explained at the within person level. Therefore, the results show that a substantial portion of the variance explained for the variables in the model can be attributed to within-person differences, indicating that it is appropriate to use HLM for hypotheses testing.

Considering the relatively high correlation between work task overload and time pressure ( $r=.68$ ), I conducted a confirmatory factor analysis to examine their divergent validity. Model 1 contained two factors with items of work task overload and time pressure loaded on these two factors separately; Model 2 combined all items into one factor. Results showed that model 1 ( $\chi^2=26.24$ ,  $df=8$ ,  $\chi^2 / df=3.28$ , Goodness-of Fit Index =.97, Comparative Fit Index = .98, Normed Fit Index = .97, Relative Fit Index=.94, Incremental Fit Index = .98, Standardized Root Mean Residual = .05) had a better fit than model 2 ( $\chi^2=134.56$ ,  $df=9$ ,  $\chi^2 / df=14.95$ , Goodness-of Fit Index =.81, Comparative Fit Index = .86, Normed Fit Index = .85, Relative Fit Index=.75, Incremental Fit Index = .86, Standardized Root Mean Residual = .11), implying a good divergent validity between these two variables.

## Within-Person Results

The effects of negative daily work events on negative work reflection and negative affect are shown in Tables 2 and 3. Hypotheses 1a and 1c were supported, such that work task overload ( $b=.21, p<.05$ ) and work interpersonal conflict ( $b=.41, p<.01$ ) were significantly related to negative work reflection. However, work time pressure ( $b=-.03, n.s.$ ) was not significantly related with negative work reflection, failing to support Hypothesis 1b. Hypotheses 2a and 2b were not supported as both work task overload ( $b=.01, n.s.$ ) and time pressure ( $b=.14, n.s.$ ) had no significant relationships with negative affect, but Hypothesis 2c was supported in that work interpersonal conflict ( $b=.24, p<.05$ ) was positively related with negative affect. Hypotheses 3a and 3b predicted that negative work reflection and negative affect were positively related to satisfaction with work-family balance. As shown in Table 4, participants reported lower levels of satisfaction with work-family balance when they experienced higher levels of negative work reflection ( $b=-.23, p<.01$ ) and negative affect ( $b=-.21, p<.01$ ), indicating both Hypotheses 3a and 3b were supported.

Table 2 Direct Effects on Negative Work Reflection

Variable	Null Model			Model 1			Model 2		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Intercept	2.18	.12	17.61**	1.64	.83	1.98	1.63	.83	1.97
<i>Level 1</i>									
Positive Affect (Afternoon)				-.23	.10	-2.36*	-.15	.07	-2.22*
Positive Affect (Evening)				.22	.09	-2.53*	-.27	.09	-3.10**
Negative Affect (Afternoon)				-.00	.14	-.03	-.13	.14	-.97
Work Task Overload (Afternoon)							.21	.10	2.12*
Work Time Pressure (Afternoon)							-.03	.07	-.41
Work Interpersonal conflict (Afternoon)							.41	.16	2.51**
<i>Level 2</i>									
Age				-.00	.01	-.22	-.00	.01	-.21
Gender				.42	.27	1.60	.43	.27	1.60
Parental Status				.02	.24	.08	.02	.24	.07
Marital Status				.12	.26	.46	.12	.26	.47
Managerial Position				-.51	.28	-1.78	-.51	.28	-1.79
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.99			.98			.99		
Level 1 variance	.39			.35			.31		
-2 Log Likelihood	557.02			551.73			537.68		
Diff-2 Log				5.29			19.34		

Note. N=73 for level 2 and N=213 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Table 3 Direct Effects on Negative Affect

Variable	Null Model			Model 1			Model 2		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Intercept	1.59	.07	22.61**	2.12	.44	4.88**	2.12	.39	5.43**
<i>Level 1</i>									
Positive Affect (Afternoon)				.09	.09	.99	.12	.09	1.42
Positive Affect (Evening)				-.36	.11	-3.44**	-.38	.07	-5.39**
Negative Affect (Afternoon)				.23	.16	1.41	.12	.10	1.10
Work Task Overload (Afternoon)							.01	.08	.09
Work Time Pressure (Afternoon)							.14	.08	1.78
Work Interpersonal conflict (Afternoon)							.24	.12	2.07*
<i>Level 2</i>									
Age				-.02	.01	-3.39**	-.02	.01	-2.76**
Gender				.17	.14	1.21	.17	.15	1.16
Parental Status				.05	.13	.37	.05	.15	.32
Marital Status				-.04	.14	-.29	-.04	.15	-.28
Managerial Position				-.22	.12	-1.84	-.22	.15	-1.50
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.23			.21			.21		
Level 1 variance	.35			.29			.27		
-2 Log Likelihood	460.97			440.96			437.35		
Diff-2 Log				20.01			3.61		

Note. N=73 for level 2 and N=213 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Table 4 Direct Effects on Satisfaction with Work-Family Balance

Variable	Null Model			Model 1			Model 2		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Intercept	3.83	.10	39.95**	3.75	.60	6.20**	3.75	.55	6.79**
<i>Level 1</i>									
Satisfaction with Work-Family Balance (Afternoon)				.23	.13	1.72	.23	.11	2.19*
Positive Affect (Afternoon)				-.06	.15	-.40	-.09	.09	-.96
Positive Affect (Evening)				.18	.07	2.50*	.05	.07	.70
Negative Affect (Afternoon)				-.04	.14	-.32	.01	.10	.07
Negative Affect (Evening)							-.23	.09	-2.71**
Negative Work Reflection (Evening)							-.21	.08	-2.70**
<i>Level 2</i>									
Age				.02	.01	1.67	.02	.01	1.70
Gender				-.34	.21	-1.63	-.34	.21	-1.61
Parental Status				-.24	.22	-1.17	-.24	.22	-1.10
Marital Status				.13	.20	.67	.13	.21	.61
Managerial Position				.19	.21	.89	.19	.21	.91
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.55			.51			.55		
Level 1 variance	.32			.29			.32		
-2 Log Likelihood	490.45			489.40			472.60		
Diff-2 Log				1.05			16.80		

Note. N=73 for level 2 and N=213 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Hypotheses 4a-c proposed indirect effects of work task overload, time pressure and work interpersonal conflict in the afternoon on satisfaction with work-family balance through negative work reflection in the evening. As shown in Table 5, although negative work reflection was significantly related to satisfaction with work-family balance, the two types of negative work task-related events (i.e., work task overload and time pressure) were not significantly related to satisfaction with work-family balance. Thus Hypotheses 4a and 4b were not supported. Hypothesis 4c suggested the mediating role of negative work reflection on the relationship between work interpersonal conflict and satisfaction with work-family balance. As shown in Table 5, negative work reflection ( $b = -.22, p < .01$ ) was positively related to satisfaction with work-family balance. The significant coefficient between work interpersonal conflict and satisfaction with work-family balance ( $b = -.32, p < .01$ ) decreased when controlling for the effect of negative work reflection in the regression (see Table 5). Thus, Hypothesis 4c was supported.

Hypotheses 5a and 5b indicated indirect effects of work task overload and time pressure on satisfaction with work-family balance through negative affect in the evening. Similarly, since work task overload and time pressure were not positively related with satisfaction with work-family balance, Hypotheses 4a and 4b were not supported. Hypothesis 5c proposed an indirect relationship between work interpersonal personal conflict in the afternoon, negative affect and satisfaction with work-family balance in the evening. This hypothesis was supported in that negative affect ( $b = -.22, p < .01$ ) was positively related to satisfaction with work-family balance, and the significant coefficient between work interpersonal conflict and satisfaction with work-family balance ( $b = -.32, p < .01$ ) decreased when controlling for the effect of negative affect in the regression model (see Table 5).

Table 5 Indirect Effects on Satisfaction with Work-Family Balance

Variable	Model 1			Model 2			Model 3		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Intercept	3.75	.55	6.79**	3.75	.60	6.22**	3.75	.55	6.79**
<i>Level 1</i>									
Satisfaction with Work-Family Balance (Afternoon)	.23	.11	2.02*	.21	.11	1.83	.25	.11	2.31*
Positive Affect (Afternoon)	-.08	.09	-.85	-.11	.15	-.73	-.05	.09	-.56
Positive Affect (Evening)	.21	.07	2.91**	.15	.06	2.44*	.10	.08	1.34
Negative Affect (Afternoon)	.05	.11	.42	.01	.13	.08	.08	.11	.78
Work Role Overload (Afternoon)	.01	.08	.10	.06	.08	.75	.01	.08	.15
Work Time Pressure (Afternoon)	.02	.08	.27	.02	.08	.20	.06	.08	.75
Work Interpersonal Conflict (Afternoon)	-.32	.12	-2.64**	-.22	.07	-3.27**	-.25	.12	-2.11*
Negative Work Reflection (Evening)				-.25	.07	-3.70**			
Negative Affect (Evening)							-.28	.09	-3.24**
<i>Level 2</i>									
Age	.02	.01	1.70	.02	.01	1.66	.02	.01	1.71
Gender	-.34	.21	-1.61	-.34	.21	-1.64	-.34	.21	-1.60
Parental Status	-.24	.22	-1.10	-.24	.21	-1.16	-.24	.22	.63
Marital Status	.13	.21	.61	.13	.20	.66	.13	.21	-1.12
Managerial Position	.19	.21	.91	.19	.21	.90	.19	.21	.91
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.51			.52			.52		
Level 1 variance	.31			.27			.27		
-2 Log Likelihood	495.27			453.44			484.35		
Diff-2 Log				41.83			10.92		

Note. N=73 for level 2 and N=213 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)



## Multilevel Moderation Results

Hypotheses 6a, 6b, 7a and 7b stated the multilevel moderating effects of between-person task crafting on the within-person relationships between undesirable work task events and negative work reflection and negative affect. Hypotheses 6a and 6b suggested that work task crafting moderated the positive relationships between work task overload and time pressure and negative work reflection, such that the positive relationships would be weaker when the level of work task crafting was higher. The interaction between work task crafting and work task overload was significant ( $b=.24, p<.01$ ), but the direction was contradictory to the hypothesis (see Figure 2). The positive relationship between work task overload and negative work reflection became stronger when the level of work task crafting was higher. In addition, work task crafting did not moderate the effect of work time pressure on negative work reflection. Thus, Hypotheses 6a and 6b were not supported. Hypotheses 7a and 7b proposed that work task crafting buffered the positive relationships between work task events (i.e., work task overload and time pressure) and negative affect. Both of these hypotheses were not supported as work task crafting did not moderate the relationships between work task overload and time pressure in the afternoon and negative affect in the evening.

Hypotheses 8a and 8b indicated that work relational crafting would buffer the positive relationships between work interpersonal conflict and negative work reflection and negative affect. As shown in Table 6, the interaction between work interaction conflict and work relational crafting was insignificant, indicating Hypothesis 8a was not supported. On the other hand, the interaction between work interpersonal conflict and work relational crafting was significant on negative affect, but the direction was opposite to that hypothesis (see Figure 3): with the increase of work relational crafting, the positive relationship between work

interpersonal conflict and negative affect became stronger. Thus, neither Hypothesis 8a nor 8b were supported.

Since none of the moderation effects were supported, I did not test the moderated mediation in Hypotheses 9, 10 and 11.

Table 6 Multilevel Moderating Effects of Work Task and Relational Crafting

Variable	Model 1 (Negative Work Reflection)			Model 2 (Negative Affect)		
	Estimate	SE	t	Estimate	SE	t
Intercept	1.45	.69	2.11*	2.02	.37	5.41**
<i>Level 1</i>						
Positive Affect (Afternoon)	-.16	.09	-1.75	.05	.08	.64
Positive Affect (Evening)	-.29	.08	-3.88**	-.43**	.07	-6.23**
Negative Affect (Afternoon)	-.16	.11	-1.38	.01	.10	.09
Work Role Overload (Afternoon)	.24	.09	2.76**	.01	.08	.12
Work Time Pressure (Afternoon)	-.05	.08	-.65	.15	.08	1.95
Work Interpersonal Conflict (Afternoon)	.33	.13	2.45*	.07	.12	.54
<i>Level 2</i>						
Age	-.00	.01	.10	-.01	.01	-.29*
Gender	.34	.26	1.29	.14	.14	1.01
Parental Status	.22	.27	.81	.09	.15	.59
Marital Status	.13	.26	.53	-.06	.14	-.41
Managerial Position	-.42	.26	-1.61	-.24	.14	-1.68
Work Task Crafting	.60**	.17	3.64**	.17	.09	1.89
Work Relational Crafting	-.14	.15	-.93	.12	.08	1.49
Work Task Overload (Afternoon) * Work Task Crafting	.24	.12	2.01*	-.06	.10	-.56
Work Time Pressure (Afternoon) * Work Task Crafting	.02	.11	.19	.09	.10	.92
Work Interpersonal Conflict (Afternoon) * Work Relational Crafting	.10	.14	.72	.50	.13	3.87**
<i>Variance-Covariance Estimates</i>						
Level 2 variance	.84			.19		
Level 1 variance	.30			.24		
-2 Log Likelihood	624.06			427.90		

Note. N=73 for level 2 and N=213 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Figure 2 Interaction Effects of Work Task Overload and Work Task Crafting on Negative Work Reflection

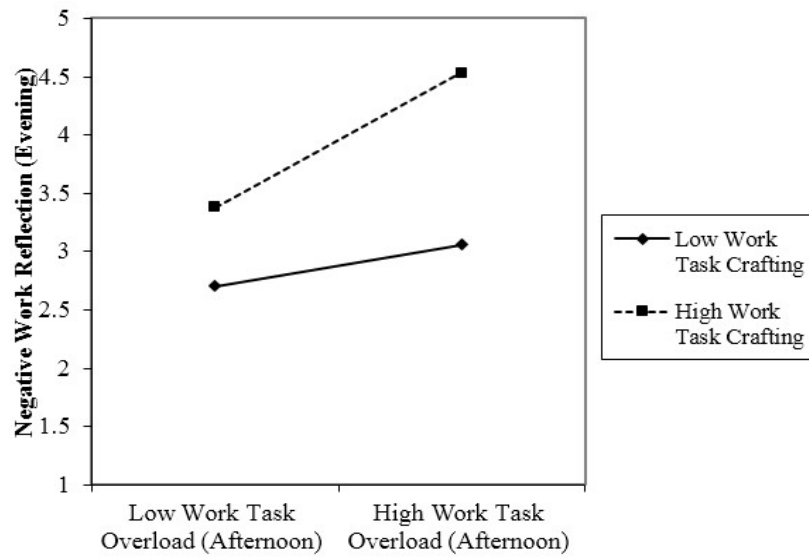
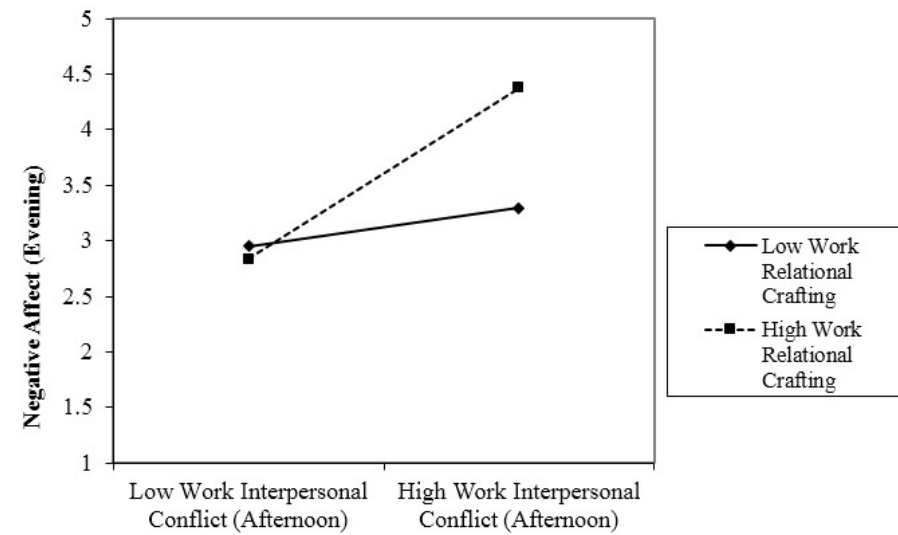


Figure 3 Interaction Effects of Work Interpersonal Conflict and Work Relational Crafting on Negative Affect



## **Discussion**

The objective of this study was to examine the effects of daily negative work events on employees' psychological reactions and satisfaction with work-family balance. Evidence from the daily diary study supported the notion that work task overload and work interpersonal conflict triggered psychological reactions in terms of negative work reflection and negative affect. I also tested the mediation effect and found that work interpersonal conflict was negatively associated with satisfaction with work-family balance through both negative work reflection and negative affect on a daily basis.

Further, I examined the multilevel influence of job crafting on the relationships between negative work events and individuals' psychological reactions. The findings showed that some within-person relationships between negative work events and cognitive and affective reactions were contingent on job crafting. Although the directions were contradictory to what I proposed, these unexpected results are still valuable and make contributions to both work-family and crafting literatures.

### **Theoretical Implications**

In line with the proposed model, daily task and relational work events, in terms of work overload and work interpersonal conflict at work, were positively related to negative work reflection and negative affect at home on a daily basis. These findings are consistent with previous between-person level (Berset, Elfering, Lüthy, Lüthi, & Semmer, 2011; Cropley & Millward Purvis, 2003) and within person-level research (Almeida & Kessler, 1998; Dimotakis et al., 2011; Ilies et al., 2011; Ilies, Wilson, & Wagner, 2009). Specifically, these findings supported not only CAPS theory (Mischel & Shoda, 1995), indicating that situational features

(which are framed as negative work events in this study) activate individuals' cognitive and affective reactions, but also cognitive theories of rumination (Martin & Tesser, 1989) and affective events theory (Weiss & Cropanzano, 1996). In line with cognitive theories of rumination (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008), people tend to consciously think about the work events that represent their failure to achieve their goals and these memories of failure remain in an activated state even after the triggering events have passed. In this case, employees experiencing work overload and interpersonal conflict may come to view these events as a failure to achieve their task-related goals for the day and maintain pleasant relationships with their colleagues, which may lead them to ruminate and dwell on the unpleasantness of the day's events even after they return home. In addition, affective events theory proposes that work events influence affective states and distal job attitudes and behaviors (Weiss & Cropanzano, 1996). In the context of my study, the results bear out the reasoning laid out in affective events theory, such that experiencing excessive workload or dealing with interpersonal conflict at work tends to trigger negative affective reactions, such as irritation, nervousness, and distress.

Furthermore, the results showed that daily work interpersonal conflict reduced satisfaction with work-family balance through both negative work reflection and negative affect. These significant mediation effects contribute to the work-family literature in several aspects. First, by integrating CAPS theory (Mischel & Shoda, 1995) and COR theory (Hobfoll, 1989), I demonstrate the underlying psychological process between interpersonal conflict and satisfaction with work-family balance. Research on work-family balance has been based on the assumption that work-family balance is a stable appraisal. Researchers rarely emphasize the existence and importance of the fluctuation of work-family balance except for a few exceptions. Butler and his colleagues (2009) examined daily job demands (i.e., work overload) and spousal support on daily

work-family balance. In a review paper, Maertz and Boyar (2011) suggested that work-family studies should focus more on the dynamics of work-family balance. Kossek, Valcour, and Lirio (2014) also stated that work-family balance should be viewed and treated as a momentary state. More broadly, a growing recognition exists of the need to consider the temporal element in organizational research and design (Mitchell & James, 2001). Incorporating the role of time in causal relationships is critical in theory building and testing. As George and Johns (2001) noted, “Although theories in organizational behavior more often than not specify relationships among constructs in causal terms, the duration of effects, the time lag between causes and effects, and differences in rates of change are often left unspecified.” (p.670) The current study responds to this call and provides empirical support that negative work events and negative cognitive and affective reactions exacerbate individuals’ satisfaction with work-family balance.

These findings also contribute to COR theory by elevating and elucidating the critical role of time in the resource acquisition and loss process (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). Although COR theory is a dynamic theory, most studies using this theory underestimate or completely neglect examining the role of time and do not build the necessary temporal elements into their research questions. A few researchers have started testing the research loss spirals utilizing longer (Chen, Powell, & Cui, 2014; Hakanen, Schaufeli, & Ahola, 2008) or shorter time frames (Sanz-Vergel et al., 2010). This study adds to the emerging work in this area by highlighting the temporal elements that play out in the resource acquisition and resource loss processes. Specifically, the findings bring to light the resource loss process in the form of daily deleterious effects of unpleasant work events that endure long after the events are over and trigger negative cognitive and affective reactions and subsequent poor assessments of satisfaction with work-family balance.

The findings on the moderating role of job crafting also contributed to both work-family and crafting literatures. As a typical type of proactive employee behavior, I proposed that general job crafting in terms of task and relational crafting would buffer the influences of negative task and relational events on negative psychological reactions. However, two significant interactions indicated contradictory results. The higher the people's general job crafting, the stronger the positive relationship between work task overload and negative work reflection. Similarly, relational crafting enhanced the positive relationship between work interpersonal conflict and negative affect.

These unexpected results indicate the unexplored boundary conditions of job crafting. Originally job crafting was framed as a self-regulatory and proactive behavior, whereby employees redesigned the boundaries of their task or relationships with others at work to fit their personal preferences (Bakker & Demerouti, 2007; Wrzesniewski & Dutton, 2001). Although job crafting is framed as a beneficial resource that increases engagement and performance, some mixed findings exist in terms of different types of job crafting. Tims, Bakker, and Derks (2012) proposed and developed scales to test three types of job crafting: seeking challenges, reducing demands, and seeking resources. Studies have reported that reducing demands has no influence on engagement (Tims, Bakker, & Derks, 2012) and has positive effects on exhaustion (Demerouti & Bakker, 2014; Demerouti, Bakker, & Halbesleben, 2015). These results occurred because reducing demands represents a resource loss process that hinders individuals' health (Demerouti & Bakker, 2014). This empirical evidence and logic helps to understand the counterintuitive interactions: work task crafting involves changing the status quo and is a resource intensive behavior. Employees who often utilize task crafting in general with the objective of reducing demands (i.e., task overload) may experience extensive resource loss. Even



though the employees' original purposes may have been to reduce their daily work overload, engaging in job crafting seems not to be effective and appears to elicit negative cognitive and affective reactions in the short run. It is possible that the beneficial effects of job crafting need a longer time period to become evident, which this study did not explore. In the meantime, these findings provide a cautionary and sobering note on the limits of engaging in job crafting as a tool for achieving better satisfaction with work-family balance.

I did not find significant interactions between time pressure and job task crafting as evidence of reducing hindrance demands. Although time pressure is viewed as a hindrance event in this study, previous studies have suggested that time pressure is a typical challenge stressor (e.g., LePine, Podsakoff, & LePine, 2005). Thus, future research could treat time pressure as a challenge demand and explore the moderating role of job task crafting in understanding the different outcomes of time pressure.

In addition, although seeking resources in pursuit of job relational crafting may seem beneficial for employees (Bakker et al., 2012), it may play a harmful role in the context of interpersonal conflict and the ensuing cognitive reflection and affect. These results can be explained using the resource depletion tenet of COR theory. For example, when employees face high levels of interpersonal conflict, those employees who engage in relational crafting will attempt to actively diffuse tensions, rebuild communication channels, and/or find common ground with sparring colleagues. However, this proactive approach may not always be the best strategy in regard to dealing with conflict (Rahim, 1983). Since the tension is still fresh and active, attempts to reshape the contours of tense relationships and engage in candid communication during the course of the workday may actually worsen the interpersonal tensions. Similar to work task crafting, engagement in work relational crafting is not a zero resource

investment strategy and may require enormous deployment of varied physical and psychological resources in the hopes of avoid future resource losses, such as fractured work relationships or undermining by coworkers. Given that conflict resolution and relationship repairs are time and energy consuming processes, employees engaging in relational crafting in response to interpersonal conflict may not only not see any immediate payoffs from engaging in these behaviors, but may be left to deal with their own worsened negative thoughts and emotions. In effect, they may be inadvertently trapping themselves in the resource loss spirals that Hobfoll (1989) described in which initial resource losses set the stage for further resource losses. Future research could consider teasing out the role of relational factors and quality, such as the existence of prior interpersonal conflict in order to better understand the effectiveness of different proactive self-regulatory strategies, such as task and relational crafting. It is possible that the positive influence of these crafting strategies truly emerges when in the context of resource gain spirals rather than resource loss spirals.

### **Practical Implications**

Along with the previously noted theoretical implications, the findings have practical implications as well. This study captures the process that unfolds from work-related events on a given workday and shows how it influences employees' cognitive and affective reactions and their daily satisfaction with work-family balance. Findings from this study highlight the important role that organizations could play by reducing or restructuring employees' overwhelming task demands and placing reasonable demands on their time. If organizations or supervisors were to do that, it is possible that employees will be less likely to ruminate about their excessive work demands or experience irritability and distress when they come home after work. Moreover, considering the detrimental influences of relational conflict in the workplace,

managers and organizations should offer conflict resolution workshops, team-building programs, and/or counseling services through Employee Assistance Programs (EAP) in order to resolve serious conflicts. Such interventions could preempt, diffuse, or resolve some occurrences of interpersonal conflict thereby preventing the formation of negative cognitive and affective reactions. In this way, organizations and supervisors may play subtle roles in shaping their employees' satisfaction with work-family balance at the end of each workday.

For employees, the findings suggest that job crafting may not always be an appropriate strategy to use in order to reduce the influences of negative work events on their ensuing negative cognitive and affective reactions. Thus, employees should be mindful of the limits of crafting strategies and be thoughtful about when to use work task or relational crafting strategies in response to stressful work demands or tense work relationships. Without adequate understanding, individuals' self-regulatory behaviors will not buffer, but may inadvertently exacerbate the resource loss spiral. Therefore, I suggest that job crafting should not be the only tool that employees use to respond to daily negative work events. It is essential that employees receive formal and informal support from organizations in order to resolve negative work overload, time pressure and interpersonal conflict. Along with this, job crafting may be especially helpful in that it enables employees to confront demanding work situations and experience less work rumination and negative affect at home.

### **Limitations and Future Research**

This study is not without limitations. The first limitation is generalizability. All of the participants in this study were panel members from Qualtrics and the effective sample size was relatively small. Some studies have shown a concern in regard to whether panel samples are

different from the population (Kraut et al., 2004). I encourage future studies to expand the sample size and test the model using traditional sample sources, which will alleviate concerns of generalizability. In addition, future research should utilize samples of individuals not working and living in the United States. Previous work-family studies have indicated the importance of cultural factors in people's work-family experiences (see Shaffer, Joplin, & Hsu, 2011 for a review). It is possible that people from different cultures may experience different responses in terms of work events, negative reactions, and satisfaction with work-family balance. Future research could explore the possible influences of national or personal cultural values on this model.

Second, the model is built around capturing the daily influences of negative work events, negative cognitive and affective reactions and satisfaction with work-family balance, without considering the parallel positive influences. In line with positive psychology (Seligman & Csikszentmihalyi, 2000; Wright, 2003), it is important to take into account how positive resources and events drive positive work reflection (Bono, Glomb, Shen, Kim, & Koch, 2013) and positive affect (Fredrickson, 1998), which in turn enhance work-family balance. Filling this gap in our understanding will bring better knowledge and verification of the resource gain spiral described in COR theory (Halbesleben & Wheeler, 2015). Therefore, I encourage future research to consider both positive and negative loops in the same model.

The third limitation focuses on the parallel path that unfolds in the family domain. Although the main focus in this study is to understand the causal links between work events and satisfaction with work-family balance, it is likely that family task and relational events that occur the prior evening may increase negative family reflection and negative affective states the next morning, which may in turn impair employees' satisfaction with work-family balance. Future

research could explore the above-mentioned links in order to better understand the role and contributions of the family domain to the work-family balance assessment.

Fourth, this study is based on the participants' self-reported experiences, without considering the potential experiences of their coworkers, supervisors, significant others, or other family members at home. In terms of their personal backgrounds, more than half of the sample were married. Thus, it is possible that crossover effects exist between the employees and their spouses. Extant research has considered the crossover effect in work-family literature (e.g., Ferguson et al., 2012), but few studies have investigated the crossover effects in terms of satisfaction with work-family balance. For example, will employees' negative work reflection or negative affect reduce their spouses' satisfaction with work-family balance or vice versa? Further, will employees' daily negative work events influence spouses' satisfaction with work-family balance through the increase of negative work reflection and negative affect or vice versa? Future research could consider these and other possibilities based on crossover and other theoretical perspectives that capture the interactions of work and family experiences among couples.

Fifth, I used a time-sensitive design to capture daily demands and fluctuations. However, employees may experience additional events that are not reflected in the measures used in this study. To consider a wider range of work events, I encourage future research to operationalize work events in a broad and inclusive manner (Matta, Erol-Korkmaz, Johnson, & Biçaksiz, 2014) and examine their influences on cognitive and affective reactions and satisfaction with work-family balance.

The sixth limitation relates to the notion of boundary permeability. In this study, work and family domains were treated as having relatively impermeable boundaries. However, the permeability of work and family boundaries needs to be considered in order to accurately assess people's satisfaction with work-family balance. For example, research by Chesley (2005) and Derks, van Mierlo, and Schmitz (2014) has shown that individuals frequently fulfill their work obligations even after work hours. By the same token, individuals also take care of family errands while at work. Since boundary permeability was not the main focus of the study, I did not consider these. In fact, in order to rule out the confounding influences, I eliminated participants who did not go to work in the daytime and did not go home after work, but it is still possible that people kept working during evenings or even mentally thinking about their specific work tasks when they were at home. Future research could consider examining the role of boundary management (Ashforth, Kreiner, & Fugate, 2000) in the context of the current model.

Seventh, although job crafting is theorized as either a state-like or dynamic construct (Wrzesniewski & Dutton, 2001), I only considered its stable role instead of the dynamic perspective. It is possible that people attribute different valences to different events, which may influence their choices in regard to specific types of crafting behaviors. Future studies could explore the dynamic moderating effects of different types of daily job crafting behaviors on the relationships among work events, negative psychological reactions, and satisfaction with work-family balance.

The last limitation is that the data was self-reported, which may cause common method bias. However, the use of group mean centering intentionally eliminated several causes of the individual differences in response tendencies (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

The time-lagged analysis (i.e., predictors measured in the afternoon and dependent outcomes measured in the evening) also alleviated the issue of common method bias.

### **Conclusion**

Integrating CAPS and COR theories, I proposed and tested a daily diary model of within-person negative work events, negative cognitive and affective reactions, and satisfaction with work-family balance. I also examined the multilevel moderating effects of job crafting on the linkages above. The results suggest that individuals' satisfaction with their work-family balance on any given day is a function of their negative task and relational events at work and their negative cognitive and affective reactions. This study also provides new insights and evidence into the unexpected detrimental influences of job crafting on employees' psychological reactions and satisfaction with work-family balance. In addition, the study extends current research on work-family balance and provides several promising directions for future work that will contribute to our understanding of the episodic nature of work-family balance.

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## Appendix A

### Invitation Letter

#### *How Do You Balance Your Work and Family Roles?*

What does your typical week look like? We are conducting a study to learn about how you go about your day fulfilling your various work commitments and family responsibilities. By sharing your experiences with us, we will be able to gain a deeper understanding of the real-time dynamics involved in juggling work and family roles. With your help, we will be able to provide critical data that can enable organizations to thoughtfully craft initiatives to help employees balance their work and family lives.

If you agree to participate, we will request you to complete a series of online surveys. For a period of one week, i.e., five consecutive workdays and two weekends (between Jan 26 and Feb 1), we request you to complete one three minute survey by 12:00 p.m., one five minute survey by 5:00 p.m., and one five minute survey by 9:00 p.m. for a total of 21 surveys. We will send you a reminder and survey link before the deadline for each survey via SMS at 10:00 a.m., 3:00 p.m. and 7:00 p.m.

In addition to the daily surveys, we request your responses to an initial and final survey so as to better understand the nature of your work and family experiences. Your participation is voluntary and completely confidential. Your responses will only be used for research purposes. We guarantee that NO ONE will have access to your completed surveys except for the researchers in this study.

As a small token of our appreciation for your willingness to participate in the surveys, we are offering \$3 for those who complete the initial or final survey. For the daily survey, we are offering \$0.50 per completed survey. In addition, if you complete 10-16 daily surveys on time, you will receive an extra \$ 2.50. If you complete 17-20 daily surveys on time, you will receive an additional \$ 7.50. And, if you complete all 21 daily surveys on time, you will receive another \$15 at the end of the study. Since this study aims to examine your experiences at specific times of the day and evening, completing the surveys on time is very important.

Thank you so much for all your time and honest responses! If you have any questions, please feel free to contact Min Wan (minwan@uwm.edu), Dr. Margaret Shaffer (shafferm@uwm.edu), and Dr. Romila Singh (Romila@uwm.edu).

*If you agree to participate, please visit **this link** and complete the initial survey. This survey is estimated to take between 15 and 20 minutes and you will be prompted with an informed consent form before you start the survey.*

Sincerely,

Min Wan, ABD



Organizations and Strategic Management  
Sheldon B. Lubar School of Business  
University of Wisconsin-Milwaukee  
3202 N. Maryland Ave  
Milwaukee, WI 53211

## **Appendix B**

Consent Form (Placed in the beginning of the survey)

### **University of Wisconsin – Milwaukee Consent to Participate in Research**

**Study Title:** A Typical Week in the Life of an Employee in the United States

**Persons Responsible for Research:** Dr. Margaret Shaffer and Dr. Romila Singh

**Study Description:** The purpose of this research study is to understand how you manage your work and family roles effectively on a day-to-day basis. By sharing your experience and perspectives, this study will help us gain a better understanding of the important events at work and home that matter most to you as you strive to manage work and family roles. There is negligible research in this area and your experience will help us offer recommendations to Human Resource executives, organizational decision-makers, and employees for positively influencing employees' efforts to balance their work and family roles.

If you agree to participate, you will be requested to complete a series of online surveys. For seven consecutive workdays and weekends (from Monday to Sunday), you will be asked to complete 21 online surveys at three times per day: one survey by noon (3 minutes), one survey by 5:00 p.m. (5-7 minutes), and one survey by 9:00 p.m. (5-7 minutes). These surveys will capture your work and family experiences throughout one week. In addition, there will be an initial 20-minute pre-survey so we can learn more about your work and family roles. At the end of this study, you will be asked to complete a 15-minute post-survey about your work and family experiences.

**Risks / Benefits:** Risks that you may experience from participating are considered minimal. Except for a small investment of your time, there are no costs for participating in this study. As an expression of our gratitude for your participation, we are offering \$ 3 for a completed pre- or post-survey. For the daily surveys, you will receive \$ 0.50 for each daily survey you complete. In addition, if you complete 10-16 daily surveys on time, you will receive an extra \$ 2.50. If you complete 17-20 daily surveys on time, you will receive an additional \$ 7.50. And, if you complete all 21 daily surveys on time, you will receive another \$15 at the end of the study. Since this study aims to understand your experiences at specific times of the day and evening, completing the surveys on time is very important. We will not be able to offer the corresponding reward if you miss a survey deadline.

**Confidentiality:** Please note that identifying information such as your e-mail and phone number will be collected **only** for research purposes so that we can match all the surveys completed by you. Specifically, we will use your phone number to send you links to the daily surveys. Since this study is time-constrained, we will send you reminders at certain time points (10:00 a.m., 3:00 p.m., and 7:00 p.m.) via the short message service (SMS). All the collected information be retained on the Qualtrics website until the end of the study and will be deleted after this time. However, the research team will keep the data for backups beyond the time frame of this research project. Data transferred from the survey site will be saved in an encrypted format for five years. Only Dr. Shaffer, Dr. Singh and Ms. Wan will have access to the data. However, the Institutional Human Research Protections may review this study's records. The research team

will remove your identifying information (e.g., e-mail and phone number) immediately after collecting and linking the data. All study results will be reported without identifying information such that no one viewing the results will ever be able to match you with your responses.

**Voluntary Participation:** Your participation in this study is voluntary. You may choose not to take part in this study, or if you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin-Milwaukee.

**Who do I contact for questions about the study?** For more information about the study or study procedures, please contact Min Wan at [minwan@uwm.edu](mailto:minwan@uwm.edu) or 414-229-2538.

**Who do I contact for questions about my rights or complaints towards my treatment as a research subject?** Contact the UWM IRB at 414-229-3173 or [irbinfo@uwm.edu](mailto:irbinfo@uwm.edu).

## Appendix C

### Study Variables Codebook

#### Baseline Survey

##### **Job Task Crafting**

Source: Tims, Bakker, & Derks (2012)

Scale: 1=not at all to 5=most of the time

Below are questions asking your behaviors at workplace.

*To what extent have you...*

1. made sure that your work is mentally less intense?
2. tried to ensure that your work is emotionally less intense?
3. managed your work so that you try to minimize contact with people whose problems affects you emotionally?
4. organized your work so as to minimize contact with people whose expectations are unrealistic?
5. tried to ensure that you do not have to make difficult decisions at work?
6. organized your work in such a way to make sure that you do not have to concentrate for too long a period at once?

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, 80(1): 173-186.

##### **Job Relational Crafting**

Source: Tims, Bakker, & Derks (2012)

Scale: 1=not at all to 5=most of the time

Below are questions asking your behaviors at workplace.

*To what extent have you...*

1. asked your supervisor to coach you?
2. asked whether your supervisor is satisfied with your work?
3. looked to your supervisor for inspiration?
4. asked others for feedback on your job performance?
5. asked colleagues for advice?

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, 80(1): 173-186.

##### **Demographic Information**

**Age**\_\_\_\_\_

**Gender**

- a. Male
- b. Female
- c. Other

**Marital status**

- a. Currently married or in a committed relationship
- b. Never married/single
- c. Divorced/Separated
- d. Widowed

**Parental status**

- a. Yes
- b. No

**Number of Children under 18 living at home**\_\_\_\_\_

**Spouse working status**

- a. Full-time employed
- b. Part-time employed
- c. Self employed
- d. Unemployed

**Work hours**\_\_\_\_\_

**Position**

- a. Top-level management
- b. Middle-level management
- c. Lower-level management
- d. Professional
- e. Non-management
- f. Technical

Afternoon Survey (Workdays)

### **Satisfaction with work-family balance**

Source: Valcour (2007)

Scale: 1=not at all to 5=most of the time

*This afternoon, I've felt satisfied with...*

1. the way I divided my time between work and personal or family life.
2. the way I divided my attention between work and home.
3. how well my work life and my personal or family life fit together.
4. my ability to balance the needs of my job with those of my personal or family life.
5. the opportunity I had to perform my job well and yet be able to perform home-related duties adequately.

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, 92(6): 1512-1523.

### **Negative and positive affect**

Source: adapted from Watson, Clark, & Tellegen (1988)

Scale: 1=not at all to 5=most of the time

*This afternoon, I've felt...*

1. enthusiastic.
2. excited.
3. inspired.
4. angry.
5. nervous.
6. distress.

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(6): 1063-1070.

### **Work task overload**

Source: adapted from Schaubroeck, Cotton, & Jennings (1989)

Scale: 1=strongly disagree to 5=strongly agree

*This afternoon,*

1. the amount of work tasks I was expected to do has been too great.
2. I've never had enough time and energy to get everything done at work.
3. I've had too much work tasks for one person to do.

Schaubroeck, J., Cotton, J. L., & Jennings, K. R. (1989). Antecedents and consequences of role stress: A covariance structure analysis. *Journal of Organizational Behavior*, 10(1), 35-58.

### **Work time pressure**

Source: Semmer (1984)

Scale: 1=strongly disagree to 5=strongly agree

*This afternoon,*

1. I've faced time pressure.
2. I've been required to work fast.
3. I've worked faster than I do usually.

Semmer, N. (1984). Streßbezogene Tätigkeitsanalyse [Stress-oriented task-analysis]. Weinheim, Germany: Beltz.

### **Work interpersonal conflict**

Source: Ilies, Johnson, Judge, & Keeney (2011)

Scale: 1=strongly disagree to 5=strongly agree

*This afternoon,*

1. I've had a fight with my supervisors and coworkers over a work-related issue.
2. Supervisors and coworkers have shown disapproval of the way I handled a work situation.
3. Supervisors and coworkers have taken jabs at or needled me.
4. I've had to explain an improper behavior or action to my supervisors and coworkers.

Ilies, R., Johnson, M. D., Judge, T. A., & Keeney, J. (2011). A within-individual study of interpersonal conflict as a work stressor: Dispositional and situational moderators. *Journal of Organizational Behavior*, 32(1): 44-64.

## Evening Survey (Workdays)

### **Satisfaction with work-family balance**

Source: Valcour (2007)

Scale: 1=not at all to 5=most of the time

*This evening, I've felt satisfied with...*

1. the way I divided my time between work and personal or family life.
2. the way I divided my attention between work and home.
3. how well my work life and my personal or family life fit together.
4. my ability to balance the needs of my job with those of my personal or family life.
5. the opportunity I had to perform my job well and yet be able to perform home-related duties adequately.

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, 92(6): 1512-1523.

### **Negative and positive affect**

Source: adapted from Watson, Clark, & Tellegen (1988)

Scale: 1=not at all to 5=most of the time

*This evening, I've felt...*

1. enthusiastic.
2. excited.
3. inspired.
4. angry.
5. nervous.
6. distress.

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(6): 1063-1070.

### **Negative work reflection**

Source: Fritz & Sonnentag (2006)

Scale: 1=not at all to 5=most of the time

*This evening,*

1. I've realized what I did not like about my work.



2. I've considered the negative aspects of my work.
3. I've noticed what is negative about my work.

Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: the role of workload and vacation experiences. *Journal of Applied Psychology*, 91(4): 936-945.

### **Essay 3: A Diary Study on Negative Family Events and Satisfaction with Work-Family Balance**

As described in previous essays, work-family balance continues to attract a great deal of scholarly attention because of its potential to generate positive outcomes for both employees and organizations (e.g., Kossek, Valcour, & Lirio, 2014). Unlike work-family conflict and enrichment that are prevalent and have consistent definitions in work-family research, the concept of work-family balance is still characterized by a lot of variability as described in Essay 1. Scholars either describe work-family balance as a global approach (Greenhaus & Allen, 2011; Valcour, 2007) or as a combination of work-family conflict and enrichment (e.g., Frone, 2003). In the current study, I focus on the global approach of satisfaction with work-family balance, defined as individuals' global assessments of their satisfaction with managing their work and family demands (Valcour, 2007). This definition is suitable for the present study because it includes the complex interactions between external factors and psychosocial factors (Valcour, 2007), which capture the subjective appraisals of people's work-family balance (Grawitch, Maloney, Barber, & Mooshegian, 2013).

Although satisfaction with work-family balance has been theorized as stable and subjective appraisal (Grawitch et al., 2013; Michel, Bosch, & Rexroth, 2014), recent research has started to pay attention to its transient or episodic nature (Butler, Bass, & Grzywacz, 2009; Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010). However, the focus on the episodic nature of work-family balance is still vastly under-developed compared to the attention given to the cross-sectional view of work-family balance (e.g., Casper, Hauw, & Wayne, 2013). Specifically, most of the existing research has theorized work-family balance as a steady, unchanging state,

ignoring why and how work-family balance could vary in a given period of time (Maertz & Boyar, 2011). In addition, researchers have scarcely examined the role of family-related factors on satisfaction with work-family balance. While a bulk of the research has investigated the role of job and work contextual factors on satisfaction with work-family balance, little is known about how family domain influences individuals' assessments of work-family balance on a daily basis. Addressing this gap in our understanding is important since individuals are juggling work and family responsibilities every day (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011) and it is vital to consider that not only work-related but also family-related events shape the assessment of work-family balance.

To further compound the above shortcomings, previous research has not defined 'family' and most studies of work-family balance have typically restricted 'family' to a nuclear family (i.e., spouse and children), which is how it has been characterized in much of organizational research in general (Routhausen, 1999). In my study, I clearly define family as a functional and effective group that includes all dependents and relatives that are connected to one another through affection, obligation, and cooperation (Bogan, 1991; Routhausen, 1999). People experience either relatively routine changes in their family lives (e.g., family overload and interpersonal conflict) that may fluctuate in a short period of time or substantial and critical life changing events (e.g., marriage or divorce) that may upend one's entire family life. Since my research focus is on the daily and momentary satisfaction related to work-family balance, the events that I refer to in this study are the short-term events that occur on a daily basis and do not substantially influence or alter the family structure or function.

As indicated in Essay 1, evidence of work and family events on satisfaction with work-family balance is asymmetric. A tremendous amount of research has discussed the relationship of

work events to work-family balance and very few studies have considered the relationship between family-related events and work-family balance. One's family life offers a glimpse into the daily interactions among household members (Larson & Almeida, 1999) and other family activities and dynamics. Examining the relationship between family events and satisfaction with work-family balance will not only refine and enrich theorizing in this area, but also offer empirical evidence on the neglected aspect of the nature of family influences on individuals' satisfaction with work-family balance. Consistent with Essay 2 which emphasized the influence of negative work events on work-family balance, in this essay, I turn to focus on negative family events in terms of family task and relational events that are salient in influencing the fluctuations in one's assessment of work-family balance.

Further, people experiencing routine but unpleasant family events may encode the information and generate specific affect associated with these events (Larson & Almeida, 1999), which in turn may alter their daily assessment of their satisfaction with work-family balance. However, to my knowledge, the cognitions and feelings that link negative family events and satisfaction with work-family balance have not been previously studied. In integrating Cognitive and Processing System (CAPS) Theory (Mischel & Shoda, 1995) and Conservation of Resource (COR) Theory (Hobfoll, 1989), I attempt to identify the direct and indirect effects of negative family events on satisfaction related to work-family balance. Recognizing and understanding the missing link between objective family events and subjective assessments of work-family balance will bring about important theoretical insights that will explain the hitherto unexplained relationships between external stimuli and individuals' internal feelings of satisfaction with work-family balance.

In addition, the job crafting literature has indicated that people are inclined to reshape their physical and cognitive work activities in order to meet their personal values and preferences (Tims, Bakker, & Derks, 2013). Similarly, in the current study, drawing on COR theory and the job crafting literature, I introduce the concept of family crafting, which is defined as the behaviors that individuals apply to redesign their family duties in order to keep these duties consistent with their personal preferences. By focusing on the role of family crafting, I will be able to document and explain whether individuals engaging in family crafting behaviors experience less harmful influences from their negative (or unpleasant) family events. In doing so, I expect to offer empirical verification to practical advice that is commonly given to individuals to help them achieve better work-family balance.

In sum, this essay contributes to the work-family literature in several ways. First, the majority of past studies have focused on negative work-related events that lead to satisfaction with work-family balance, underestimating and neglecting the role of family-related events on work-family balance. Although some studies have examined the effects of family-related events on negative or positive aspects of work-family interface (see Michel et al., 2010 for a review), few have addressed the role of negative family events on satisfaction with work-family balance, which is theoretically distinct from work-family conflict and enrichment. Second, although previous studies have demonstrated that some family events are likely to change on a day-to-day basis (Almeida & Kessler, 1998), these studies did not clarify a precise link between these events and satisfaction with work-family balance. Hence, in this study, I will focus on understanding the daily fluctuations in work-family balance by specifically assessing how the daily negative family events influence one's satisfaction with work-family balance.

Third, I uncover and examine the nature of the links that connect daily negative family events with one's satisfaction with work and family balance. Specifically, I examine whether the relationship between negative family events and satisfaction with work-family balance is mediated by individuals' daily psychological (i.e., cognitive and affective) reactions. In doing so, I aim to document and clarify the reasons *why* individuals' satisfaction with their work-family balance is influenced by negative family events.

Finally, this essay contributes to the self-regulatory literature by explicitly examining the role of family crafting in shaping one's psychological reactions and satisfaction with work-family balance. Family crafting is touted as an effective strategy to help balance one's work-family balance and this study will offer important insights into the reasonableness of that practical advice. In addition, by introducing and testing the concept of family crafting, this study also intends to contribute to the theorizing in the work-family arena.

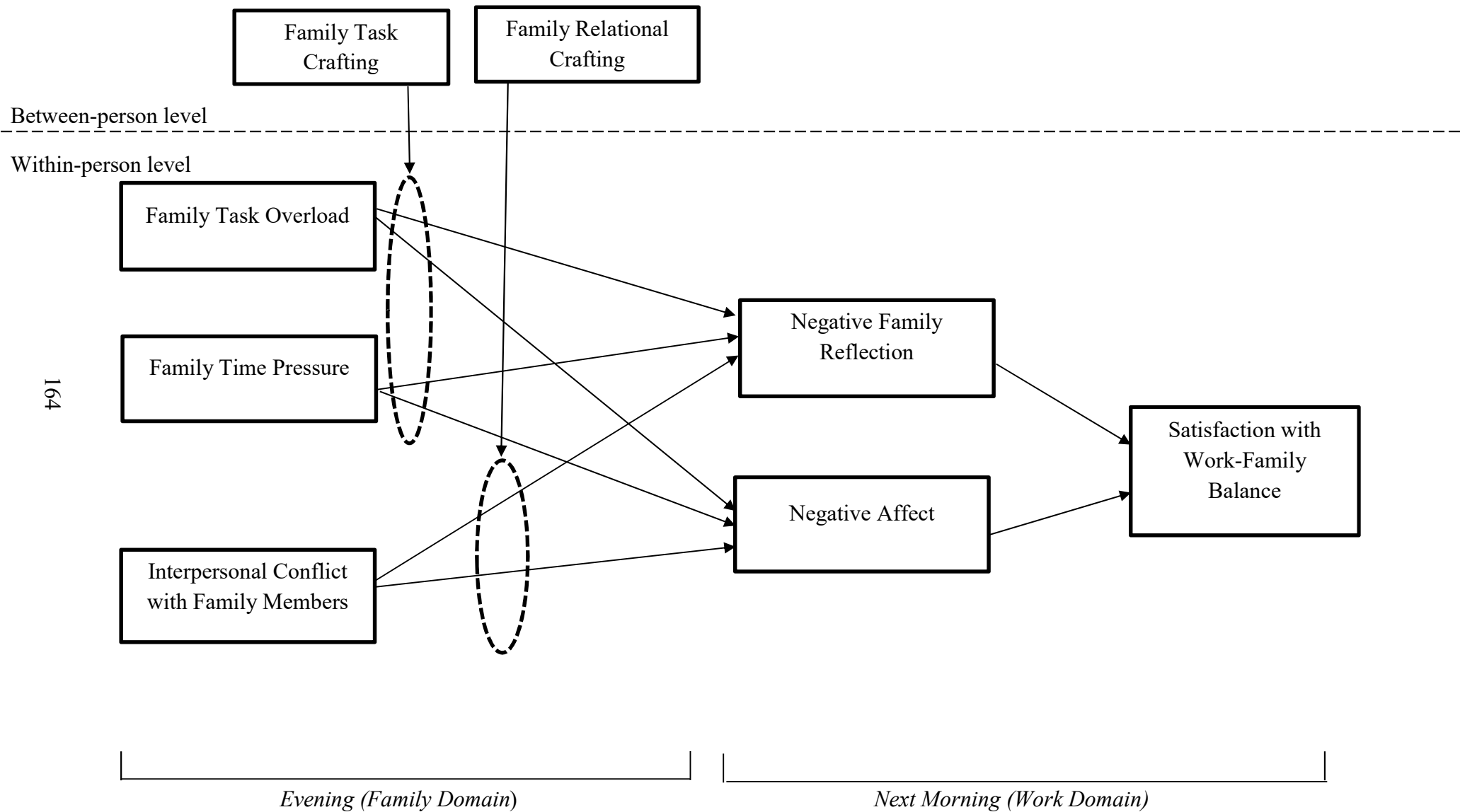
## **Theories and Hypotheses Development**

### **Theoretical Basis**

The theoretical basis of the study includes two theories: CAPS (Mischel & Shoda, 1995) and COR theories (Hobfoll, 1989). CAPS theory states that people's different psychological reactions will be activated in response to the experiences or events that occur at work. These events serve as the catalysts that stimulate the occurrences of cognitive and affective units, including encodings, expectancies and beliefs, affects, goals and values, and competencies and self-regulatory plans (Mischel & Shoda, 1995; Shoda, Wilson, Whitsett, Lee-Dussud, & Zayas, 2015). CAPS theory is used in the current study to explain how negative family events drive individuals' negative psychological reactions. I also apply COR theory to identify and explain relationships among family events, psychological reactions, and satisfaction with work-family

balance. According to COR theory, individuals strive to protect, maintain, and accumulate resources because they are valued by the individual” (Hobfoll, 1989). COR theory suggests that people experience strain because of the actual or threatened loss of valuable resources. In order to protect these resources, COR theory posits two tenets - resource conservation and resource acquisition - to explain how individuals manage resources to deal with stressors. The resource conservation tenet suggests that people tend to conserve resources since resource gain is insufficient. By contrast, the resource acquisition tenet emphasizes a competing perspective that people should invest resources to protect against resource loss (Hobfoll & Wells, 1998). In the present study, I adopt the resource loss perspective to explain the direct and indirect effects since the focus is on documenting and understanding the downstream effects of negative family events. In order to explain the moderating role of family crafting, I adopt the resource acquisition perspective as family crafting is viewed as an effective strategy that buffers the detrimental influences of unpleasant family events on individuals’ psychological reactions and work-family balance. Integrating CAPS and COR theories is useful in explaining the links among family events, individuals’ cognitive and affective units, and their satisfaction with work-family balance. The proposed relationships are illustrated in Figure 1.

Figure 1 Conceptual Model





## **Negative Family Events and Negative Psychological Reactions**

The family domain is typically characterized by tasks that need to be accomplished, such as housework, as well as relational aspects that need attention and care (Perry-Jenkins, Newkirk, & Ghunney, 2013; Sullivan, 2013). In this study, I will examine the role of both task and relational events within the family domain that are theoretically and conceptually expected to play a role in shaping one's negative psychological reactions.

Family task overload and time pressure are two common family task events that occur on a daily basis and will be used in this study to reflect negative family task events. Family task overload is defined as the perception of having too many family-related tasks and not enough time to do them. In Frone's (1992; 1997) work-family interface model, family overload was framed as a stressor of work-family conflict based on the resource scarcity perspective. Family time pressure refers to the extent to which people experience the need to accomplish all family activities in a rapid manner. Previous studies have reported the detrimental effects of family overload (Larson & Almeida, 1999; Parasuraman, Greenhaus, & Granrose, 1992) and time pressure (Rogers & Amato, 2000; Schieman, 1999) on individuals' physical and psychological outcomes. In the current study, based on CAPS theory (Mischel & Shoda, 1995), negative family events in terms of family overload and time pressure are external stimuli that trigger individuals' cognitive and affection reactions. Although CAPS theory suggests that cognitive and affective reactions are activated depending on the psychological features of a given situation, it is unclear whether the psychological features of these situations are inherently positive or negative. Therefore, I apply COR theory (Hobfoll, 1989) here as it will help to illustrate the psychological features of a given situation. Considering that family task overload and time pressure represent resource losses within the family domain, employees are likely to experience negative cognitive

and affective reactions such as family-related rumination and negative affect in response to family task overload and excessive time pressure. Moreover, since both CAPS and COR theories have been proposed to explain phenomena that are dynamic in nature (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; Shoda, Wilson, Chen, Gilmore, & Smith, 2013), the links between negative family task events and negative psychological reactions are likewise theorized as being dynamic and prone to fluctuations.

Thus, by integrating CAPS and COR theories, I suggest that family task overload and time pressure are likely to trigger negative cognitive reflection and affect. Faced with excessive family tasks, obligations, and activities and a limited time availability to attend to various family tasks, an individual may experience a process of resource loss. This is because valued and possibly finite resources (such as time and energy) may be lost in an attempt to meet these demands, which may manifest in terms of negative cognitive and affective reactions, such as negative family reflection and negative affect. Although prior research has examined the role of between-person family overload and time pressure on work-family inter-relationships (Roxburgh, 2006), family events are seldom static and hence their effects need to be treated as such.

In addition to negative family task events, I propose that negative family relational events in terms of interpersonal conflict with family members will increase negative family reflection and negative affect. Interpersonal conflict with family members refers to negative encounters that employees experience with family members. Interpersonal conflict could take the form of marital conflict, inter-parental conflict, parent-child conflict and any conflict that exists between family members (Fincham, 2003; Fincham & Beach, 1999). In the present study, I adopt a general perspective and focus on interpersonal conflicts that may occur with any family member. Previous literature has indicated that interpersonal conflict increases the stress and anxiety levels

in individuals (Ilies, Johnson, Judge, & Keeney, 2011; Jehn & Mannix, 2001). Although no direct empirical support suggesting the influence of interpersonal conflict with family members on individuals' negative cognitive and affective reactions exists, theoretical reasoning derived from CAPS and COR theories suggests positive relationships between interpersonal conflict with family members and negative cognitive and affective reactions. Specifically, drawing on CAPS and COR theories, I suggest that interpersonal conflict with family members will trigger negative family reflection and negative affect. These cognitive and affective reactions are expected to occur at the within-person level. Support for the above proposed relationship also comes from the cognitive theories of rumination (Smith & Alloy, 2009), which posit that event-based information in terms of interpersonal conflict with family members will remain in an activated state even after the occurrence of the conflict. In accordance with the resource loss perspective within COR theory, interpersonal conflict with family members may be accurately framed as resource losses (Hobfoll, 2002) since dealing with tensions with family members requires even additional time and energy to be devoted to the conflict.

Consistent with the fundamental tenets of CAPS and COR theories, conceptual reasoning, and limited empirical evidence, I propose that:

*Hypotheses 1a-c: Within individuals, negative family events in terms of (a) family task overload, (b) family time pressure and (c) interpersonal conflict with family members will be positively related to negative family reflection, such that on days when employees experience high negative family events, the level of negative family reflection will be higher compared to days when the level of their negative family events is low.*

*Hypotheses 2a-c: Within individuals, negative family events in terms of (a) family task overload, (b) family time pressure and (c) interpersonal conflict with family members will be positively related to negative affect, such that on days when employees experience high negative task events, the level of negative affect will be higher compared to days when the level of their negative events is low.*

### **Negative Psychological Reactions and Satisfaction with Work-Family Balance**

In line with COR theory, I suggest that a negative relationship exists between negative family reflection and negative affect and satisfaction with work-family balance. Satisfaction with work-family balance is based on individuals' general appraisals of whether their resources are available and accessible as needed to meet their work or family demands (Valcour, 2007). When ruminating about one's excessive family chores or experiencing negative affect because of family tensions, individuals may experience resource depletion in that these negative cognitive and affective reactions consume extra personal resources. As a consequence, employees' well-being in terms of their satisfaction with work-family balance may become impaired (Hobfoll, 1989).

*Hypothesis 3a: Within individuals, negative family reflection will be negatively related to satisfaction with work-family balance, such that on days when employees experience high negative family reflection, the level of satisfaction with work-family balance will be lower compared to days when their negative family reflection is low.*

*Hypothesis 3b: Within individuals, negative affect will be negatively related to satisfaction with work-family balance, such that on days when employees experience high*

*negative affect, the level of satisfaction with work-family balance will be lower compared to days when their negative family affect is low.*

### **Negative Family Events, Negative Psychological Reactions, and Satisfaction with Work-Family Balance**

I propose that psychological negative reactions play a mediating role in the link between family events and satisfaction with work-family balance. A number of research studies have shown that family overload decreases satisfaction with work-family interface (e.g., Abendroth & Dulk, 2011), but very few studies discuss the manner in which family time pressure and relational conflict within the family domain impair satisfaction with work-family balance. Based on COR theory, I suggest that individuals facing both task and relational conflict within the family domain are likely to experience resource depletion in terms of ruminating the unpleasant family events or experiencing negative affective states, which may decrease their satisfaction with balancing their work and family domains. Thus, negative family events in the form of family overload, time pressure, and interpersonal conflict are expected to indirectly predict satisfaction with work-family balance through their influences on negative family reflection and negative affect. These views are consistent with the theorizing within CAPS and COR theories. For example, tremendous family loads or interpersonal tensions that employees experience with family members may trigger rumination about family conflict and also trigger negative affective reactions. Negative family events represent threats to one's valued resources. Subsequently, the ensuing negative cognitive and affective reactions are expected to influence their evaluation of their satisfaction with work-family balance (Hobfoll, 2002). Based on the theorizing, I propose that:

*Hypotheses 4a-c: Within individuals, negative family reflection will mediate the relationships between negative family events in terms of (a) family task overload, (b) family time pressure, and (c) interpersonal conflict with family members and satisfaction with work-family balance.*

*Hypotheses 5a-c: Within individuals, negative affect will mediate the relationship between family events in terms of (a) family task overload, (b) family time pressure and (c) interpersonal conflict with family members and satisfaction with work-family balance.*

### **The Moderating Role of Family Crafting**

In addition to the direct and indirect effects described above, I further suggest that family crafting serves a buffering role in the relationship between negative family events and negative psychological reactions. Family crafting is similar to family coping strategies in that it refers to the strategies that people use to avoid being harmed by family stressors (Pearlin & Schooler, 1978). In the context of this study, family crafting also represents a specific form of a coping strategy that enables individuals to deal with the strains caused by negative family events, such as interpersonal conflict and family task overload. The role of family crafting is similar to problem-based coping strategies in that it restructures family roles to meet the family demands (Elman & Gilbert, 1984), thereby helping individuals become “activists with respect to their own well-being” (Thoits, 1994, p. 144).

Given the two types of negative family events (i.e., family task and interpersonal events) that are the focus of this study within the family domain, it is proposed that individuals will utilize corresponding strategies for family crafting will attenuate these two types of negative family events. Therefore, the two types of family crafting strategies being examined in this study

are family task crafting and relational crafting, both of which are expected to attenuate the influence of negative family task and relational events on cognitive and affective reactions separately.

Existing literature has demonstrated the role of coping as an appropriate strategy in response to stressors (Bird & Schnurman-Crook, 2005). In this study, I focus instead on the moderating role of family crafting as a buffer between family demands and psychological reactions. Research has indicated that job crafting helps employees shape their job-related behaviors in line with their personal preferences (Wrzesniewski & Dutton, 2001) and I contend that family task and relational crafting represents personal resources that individuals apply to rearrange and design their family responsibilities (e.g., prioritizing family activities and framing their relationships with their family members in a manner that is consistent with their own personal values and preferences). In using family crafting strategies, individuals may be better able to respond to their family demands in the form of family overload, family time pressure, and interpersonal conflict with family members. Consistent with the resource acquisition tenet of COR theory, I suggest that family task or relational crafting is an appropriate resource investment that serves to protect the personal resources necessary to deal with negative family events (Hobfoll, 1989); people tend to invest additional resources to protect any actual or potential resource losses. Therefore, when experiencing negative family events, individuals who engage in more family task or relational crafting are likely to experience less negative family reflection and negative affect.

*Hypotheses 6a-b: Family task crafting will moderate the relationships between (a) family task overload and (b) family time pressure and negative family reflection, such that the within-individual relationships will be weaker when the level of family task crafting is higher.*

*Hypotheses 7a-b: Family task crafting will moderate the relationships between (a) family task overload and (b) family time pressure and negative affect, such that the within-individual relationships will be weaker when the level of family task crafting is higher.*

*Hypothesis 8a: Family relational crafting will moderate the relationship between interpersonal conflict with family members and negative family reflection, such that the within-individual relationships will be weaker when the level of family relational crafting is higher.*

*Hypothesis 8b: Family relational crafting will moderate the relationship between interpersonal conflict with family members and negative affect, such that the within-individual relationships will be weaker when the level of family relational crafting is higher.*

Taken together, Hypotheses 5, 6, 7, and 8 indicate a mediated moderation process, where the moderating effects of family crafting on the relationship between undesirable family events and negative cognitive and affective reactions will reduce the negative impacts on work-family balance. Family task crafting allows individuals to reprioritize family chores and reallocate resources needed to fulfill their responsibilities. Similarly, family relational crafting may enable individuals to preempt interpersonal conflict or proactively negotiate with family members in order to lessen or prevent tensions. Therefore, family crafting seeks to preserve and/or generate valued and vital resources such as time, energy, and goodwill from family members, which in turn may reduce the occurrence of negative ruminations and negative affect in response to the day's undesirable family events. Consequently, employees are more likely to feel satisfied with their work-family balance.



*Hypotheses 9a-b: Within individuals, negative family reflection mediates the moderating effects of family task crafting on the relationships between (a) family task overload and (b) family time pressure and satisfaction with work-family balance.*

*Hypotheses 10a-b: Within individuals, negative affect mediates the moderating effects of family task crafting on the relationships between (a) family task overload and (b) family time pressure and satisfaction with work-family balance.*

*Hypothesis 11a: Within individuals, negative family reflection mediates the moderating effect of family relational crafting on the relationship between interpersonal conflict with family members and satisfaction with work-family balance.*

*Hypothesis 11b: Within individuals, negative affect mediates the moderating effect of family relational crafting on the relationship between interpersonal conflict with family members and satisfaction with work-family balance.*

## **Method**

### **Participants and Procedure**

Since the model in the study is consisted of both between-person and within-person levels, I conducted a weekly daily study that spanned a full week. Data were collected through Qualtrics, a third-party online survey administration company. I initially contacted 12,853 sample, of which 594 agreed to participate. In order to participate in the survey, participants had to 1) be full-time corporate employees working and living in the United States, 2) work a non-shift schedule, 3) be non-telecommuters, and 4) not be committed to any business travel plans

during the survey week. After screening out the ineligible participants, I had 206 valid respondents.

The online data collection included two parts. First, one week before the diary surveys, participants filled out the baseline survey, including demographic information and trait-like variables. One week later, diary surveys were administered at three time points per day (i.e., 10:00 a.m. CST, 3:00 p.m. CST and 5:00 p.m. CST). At each of these times, Qualtrics sent out SMS reminders and specific links to participants. Participants needed to complete the separate surveys within two hours after they received their links. In the daily surveys, participants responded to all items based on how they felt or acted at each point during the current week. As compensation, participants received a basic \$0.50 for each completed survey and an additional bonus<sup>5</sup> if they completed all surveys on time.

For data cleaning, I need participants completing the surveys on time (McCabe, Mack, & Fleeson, 2011) as I am interested in the immediate, short-term influences of negative family events on ensuing cognitive and affective reactions and satisfaction with work-family balance (McCabe, Mack, & Fleeson, 2011). I thus deleted the participants that did not fill out surveys within two hours after they received the reminders and links. These data cleaning steps ended up with 80 sample. Further, I measured negative work events in the evening to predict cognitive and affective reactions and satisfaction with work-family balance next morning. In doing so, I created a short time lag that helped to eliminate the artificial inflation (Podsakoff, MacKenzie, & Podsakoff, 2012). I deleted participants who did not go home in the evening when completing the evening survey and did not go for work next morning when completing the morning survey.

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<sup>5</sup> Participants received 1) \$ 2.50 if they completed 10-16 daily surveys on time, 2) \$ 7.50 if they completed 17-20 daily surveys on time and 3) \$15 if they completed all 21 daily surveys on time.

In this way, I ruled out the alternative situations and uncontrolled influences that 1) participants did not experience family task or relational events at home and 2) participants missed work for family reasons in the morning. After finishing the full data cleaning process, I had 45 participants with 113 valid observations.

Participants were from various industries including health care, education, IT software, financial services, entertainment (retail, restaurant, hotel, etc.), manufacturing, agriculture, construction and local government. Demographics were as follows: 26.7% were male; the average age was 41.31 years; 64.4% were married; 66.7% had children under 18; 64.5% received Bachelor's degree or above, 37.8% were managers and 62.2% were non-managers.

### **Baseline Survey**

*Family task crafting* was adapted from a six-item scale developed by Tims, Bakker and Derks (2012). Tims and his colleagues developed four sets of job crafting scales for 1) increasing structural resources, 2) decreasing hindering demands, 3) increasing social resources and 4) increasing challenging demands. I adapted and reworded the scale of reducing hindrance demands to refer to family-related activities. An example item is "To what extent have you tried to ensure that you did not have to make difficult decisions at home?" Participants provided their answers on the scale ranging from 1 (not at all) to 5 (all of the time). Cronbach's alpha of the scale was .90.

*Family relational crafting* was assessed by the four-item sub-scale of negotiating of job changes adapted from Ashford and Black's (1996) proactive tactics scale. The original sample item is "To what extent have you negotiated with others (including your supervisor and/or coworkers) about your task assignments?" I edited the wording with family-related descriptions

such as “To what extent have you negotiated with your family members about your family responsibilities?” The scale ranged from 1 (not at all) to 5 (all of the time). Cronbach’s alpha of this scale was .93.

*Demographic variables.* I controlled for several demographic variables such as gender (0=male and 1=female), age, marital status (0=non-married and 1=married), parental status (0=no children and 1=having children under 18 living with the participants), and managerial position (0=non-manager and 1=manager), which may influence employees’ satisfaction with work-family balance based on previous research (Carlson, Grzywacz, & Zivnuska, 2009; Direnzo, Greenhaus, & Weer, 2015; Michel et al., 2014).

### **Daily Survey Measures**

In order to establish causality, I collected negative family events in the evening surveys while the negative family reflection, negative affect and satisfaction with work-family balance were measured in the surveys administered in the following morning. Negative family events were measured in the evening surveys (deployed at 7:00 p.m. and closed at 9:00 p.m.) while negative family reflection, negative affect and satisfaction with work-family balance were measured in the following morning surveys (deployed at 10:00 a.m. and closed at 12:00 p.m.).

*Satisfaction with work-family balance (next morning)* was assessed using Valcour’s (2007) five-item scale. A sample item includes “This morning, I’ve felt satisfied with the way I divided my time between work and personal or family life.” All items were scored on a five-point Likert scale (1=not at all and 5=all of the time). Cronbach’s alpha was .97.

*Negative family reflection (next morning)* was measured with a three-item scale adapted from Fritz and Sonnentag’s (2006) negative work reflection scale. Once again, the word ‘work’

was replaced with ‘family’. A sample item includes “This morning, I’ve realized what I do not like about my family life.” All items were assessed on a five-point Likert scale (1=not at all and 5=all of the time). The scale appeared to be reliable with a Cronbach’s alpha of .94.

*Negative affect (next morning)* was assessed in a shorten version of Watson, Clark and Tellegen’s (1988) Positive and Negative Affect Scale, in which ten items were used for measuring negative affect. I kept three-item negative affect for the diary surveys: irritation, nervousness, and distress. A sample item is “This morning, I’ve felt nervous.” The three items were rated in a five-point Likert scale (1=not at all and 5=all of the time). Cronbach’s alpha was .77.

*Family task overload (evening)* was adapted from a three-item scale of work task overload developed by Cammann, Fichman, Jenkins, and Klesh (1983). A sample item is “This evening, I’ve had too many family responsibilities to do everything well.” The scale was rated using a five-point Likert scale (1=strongly disagree and 5=strongly agree). Cronbach’s alpha was .71.

*Family time pressure (evening)* was adapted from Semmer’s (1984) three-item scale for work time pressure. A sample item is “This evening, I’ve needed to perform faster than usual to finish my family activities.” I used a five-point Likert scale (1=strongly disagree and 5=strongly agree) to rate this scale. Cronbach’s alpha was .93.

*Interpersonal conflict with family members (evening)* was adapted from Ilies, Johnson, Judge, and Keeney’s (2011) five-item scale for work interpersonal conflict. A sample item is “This evening, I’ve had a fight with my family members over a family-related issue.” Responses

were given on a five-point Likert scale (1=strongly disagree and 5=strongly agree). Cronbach's alpha was .93.

At the within-person level, I controlled for positive affect in the evening and in the following morning as previous research indicates that immediate or time-lagged positive affect will influence people's negative affect at home (Fredrickson & Levenson, 1998). Positive affect was measured by a shortened version of Watson, Clark and Tellegen's (1988) Positive and Negative Affect Scale. The three items were enthusiastic, excited, and inspired. A sample item is "This evening, I've felt enthusiastic." and responses were given on a five-point Likert scale (1=not at all and 5=all of the time). Cronbach's alpha for positive affect in the evening and the next morning were .91 and .90, respectively. I also controlled for the negative affect in the evening that may also confound the model (Dimotakis, Scott, & Koopman, 2011). The Cronbach's alpha for the negative affect in the evening was .78. Moreover, I controlled for satisfaction with work-family balance in the evening since it may spill over and contaminate satisfaction with work-family balance next morning. Cronbach's alpha for satisfaction with work-family balance in the evening was .97.

### **Preliminary Analysis**

Since the data has a hierarchical structure containing both between-person and within-person level variables, I conducted hierarchical linear modeling (HLM) approach with the software HLM 6.0 (Bryk, Raudenbush, & Congdon, 1996). For this approach, I used random coefficient modeling to test the proposed model. I centered within-person variables around individuals' means, indicating all between-person variance in these variables was removed

(Nezlek, 2012; Ohly et al., 2010). Between-person variables were grand-mean centered. The within- and between-person inter-correlations are shown in Table 1.

Before testing the hypotheses, I ran a set of unconditional models in HLM to determine the amount of variance that is attributable at either the within-or between-person level. Results indicated that, for the daily dependent variable and mediators, 77.17% of the variance in satisfaction with work-family balance, 46.88% of the variance in negative family reflection and 78.49% of variance in negative affect were at the within-person level. In terms of the daily predictors, results showed that 66.67% of the variance in family task overload, 61.67% of the variance in family time pressure and 77.65% of the variance in interpersonal conflict with family members was explained at the within person level. Therefore, the results show that a substantial portion of the variances of the variables in the model can be attributed to within-person variances, indicating an appropriateness of using HLM for hypotheses testing.

I conducted a confirmatory factor analysis to examine the divergent validity between family task overload and family time pressure because of their relatively high correlation ( $r=.62$ ). Model 1 contained two factors that items of family task overload and time pressure were loaded on these two factors separately, whereas Model 2 combined all items into one factor. Results showed that model 1 ( $\chi^2 = 14.95$ ,  $df=8$ ,  $\chi^2 / df=1.87$ , Goodness-of Fit Index = .96, Comparative Fit Index = .99, Normed Fit Index = .97, Relative Fit Index=.94, Incremental Fit Index = .99, Standardized Root Mean Residual = .04) had a better fit than model 2 ( $\chi^2 = 22.99$ ,  $df=9$ ,  $\chi^2 / df=2.55$ , Goodness-of Fit Index = .94, Comparative Fit Index = .97, Normed Fit Index = .95, Relative Fit Index=.92, Incremental Fit Index = .97, Standardized Root Mean Residual = .05), implying a good divergent validity for these two variables.

Table 1 Means, Standard Deviations, Internal Consistencies (Cronbach's Alpha), and Intercorrelations

Variable		Mean	s.d.	1	2	3	4	5	6	7
<i>Level 1 (Within-person)</i>										
1	Satisfaction with Work-Family Balance (Next morning)	3.70	1.01	(.97)						
2	Negative Family Reflection (Next morning)	1.64	.98	-.27**	(.94)					
3	Negative Affect (Next morning)	1.65	.80	-.54**	.43**	(.77)				
4	Family Role Overload (Evening)	2.90	.69	-.37**	.29**	.31**	(.71)			
5	Family Time Pressure (Evening)	2.28	1.11	-.44**	.41**	.35**	.62**	(.93)		
6	Interpersonal Conflict with Family Members (Evening)	1.54	.90	-.28**	.47**	.45**	.35**	.47**	(.93)	
7	Satisfaction with Work-Family Balance (Evening)	3.82	.98	.62**	-.12	-.34**	-.24**	-.39**	-.33**	(.97)
8	Negative Affect (Evening)	1.54	.75	-.44**	.39**	.59**	.36**	.43**	.60**	-.41**
9	Positive Affect (Evening)	2.80	1.11	.23*	.01	-.07	-.29**	-.20*	-.13	.33**
10	Positive Affect (Next morning)	2.68	1.09	.36**	-.06	-.24**	-.24**	-.20*	-.06	.22*
<i>Level 2 (Between-person)</i>										
11	Family Task Crafting	2.24	.96	-.15	.10	.18	.14	.19*	.18	-.10
12	Family Relational Crafting	2.31	1.06	-.28**	.13	.30**	.32**	.29**	.38**	-.24**
13	Age	41.31	9.83	.31*	-.16	-.34**	-.12	-.28	-.32*	.39**
14	Gender	1.73	.44	-.15	.10	.04	.19	.09	-.03	-.03
15	Marital Status	.64	.48	.02	-.07	-.28	-.09	-.03	.13	.13
16	Parental Status	.67	.48	.13	-.15	-.22	.03	.12	.12	.12
17	Managerial Position	.38	.49	.27	-.29	-.17	-.21	-.12	.23	.23



Table 1 Cont'd

	Variable	Mean	s.d.	8	9	10	11	12	13	14	15	16
8	Negative Affect (Evening)	1.63	.76	(.85)								
9	Positive Affect (Evening)	2.72	.97	-.28**	(.92)							
10	Positive Affect (Next morning)	2.82	.99	-.20*	.59**	(.93)						
<i>Level 2 (Between-person)</i>												
11	Family Task Crafting	2.50	.79	.21*	.20*	-.03	(.90)					
12	Family Relational Crafting	2.25	.88	.28**	.13	.00	.25**	(.93)				
13	Age	40.30	10.09	-.42**	.30*	.20	.12	.02				
14	Gender	1.70	.46	-.08	-.27	-.37*	-.03	.22	-.11			
15	Marital Status	1.75	1.15	-.24	-.05	-.17	-.17	-.03	.11	-.03		
16	Parental Status	.64	.48	-.12	-.09	-.03	-.21	.26	.33*	.11	.36*	
17	Managerial Position	2.70	1.60	-.12	.13	.21	-.00	-.17	-.17	-.26	.20	-.03

Note. N=45 for level 2 and N=113 for level 1; Gender is coded as 0=Male and 1=Female; Marital Status is coded as 0=Not married and 1=Married; Parental status is coded as 0=Have no children and 1=Have children; Managerial status is coded as 0=Non-manager and 1=Manager; \* $p < .05$ . \*\* $p < .01$  (two tailed)

## Within-Person Results

The effects of negative daily family events on negative family reflection and negative affect are shown in Tables 2 and 3. Hypothesis 1a was supported, such that family task overload ( $b=.37, p<.01$ ) was significantly related to negative family reflection. However, Hypotheses 1b and 1c were not supported as the relationship between time pressure and negative family reflection was negative ( $b=-.21, p<.01$ ) and interpersonal conflict with family members was not significantly related to negative family reflection ( $b=.09, p=n.s.$ ). Hypotheses 2a-2c were not supported since family task overload ( $b=-.31, p<.01$ ) was negatively related to negative affect which was contradictory to the hypothesized direction, and neither family time pressure ( $b=.11, p=n.s.$ ) nor interpersonal conflict ( $b=-.03, p=n.s.$ ) with family members was significantly associated with negative affect.

Hypotheses 3a and 3b predicted that negative family reflection and negative affect were positively related to satisfaction with work-family balance. As shown in Table 4, negative affect ( $b=-.29, p<.01$ ) but not negative family reflection ( $b=.10, p=n.s.$ ) significantly predicted satisfaction with work and family balance, indicating that only Hypothesis 3b was supported.

Table 2 Direct Effects on Negative Family Reflection

Variable	Null Model			Model 1			Model 2		
	Estimate	SE	T	Estimate	SE	t	Estimate	SE	t
Intercept	1.65	.13	12.40**	1.98	.83	2.37*	1.98	.84	2.37*
<i>Level 1</i>									
Positive Affect (Evening)				-.01	.10	-.18	-.01	.10	-.08
Positive Affect (Next morning)				-.07	.08	-.83	-.05	.08	-.65
Negative Affect (Evening)				.05	.11	.41	.00	.12	.01
Family Task Overload (Evening)							.37	.12	3.10**
Family Time Pressure (Evening)							-.21	.09	-2.26**
Family Interpersonal conflict (Evening)							.09	.16	.16
<i>Level 2</i>									
Age				-.00	.01	-.41	-.00	.01	-.41
Gender				.17	.31	.54	.17	.31	.54
Parental Status				-.22	.32	-.68	-.21	.09	.54
Marital Status				.03	.30	.11	.03	.30	.11
Managerial Position				-.64	.29	-2.22	-.64	.29	-2.22
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.73			.68			.69		
Level 1 variance	.20			.20			.18		
-2 Log Likelihood	241.93			250.73			246.66		
Diff-2 Log				-8.80			4.07		

Note. N=45 for level 2 and N=113 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Table 3 Direct Effects on Negative Affect

Variable	Null Model			Model 1			Model 2		
	Estimate	SE	T	Estimate	SE	t	Estimate	SE	t
Intercept	1.64	.10	16.83	2.97	.58	5.16**	2.97	.58	5.16**
<i>Level 1</i>									
Positive Affect (Evening)				.16	.09	1.78	.15	.09	1.72
Positive Affect (Next Morning)				-.40	.13	-3.12**	-.42	.13	-3.33**
Negative Affect (Evening)				.30	.10	3.10**	.34	.09	3.78
Family Task Overload (Evening)							-.31	.10	-3.04**
Family Time Pressure (Evening)							.11	.11	.96
Family Interpersonal conflict (Evening)							-.03	.14	-.18
<i>Level 2</i>									
Age				-.02	.01	-3.26**	-.03	.01	-3.26**
Gender				-.02	.19	-.19	-.02	.19	-.09
Parental Status				-.05	.21	-.29	-.05	.21	-.28
Marital Status				-.21	.20	-1.01	-.21	.21	-1.01
Managerial Position				-.26	.17	-1.53	-.26	.17	-1.52
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.30			.25			.25		
Level 1 variance	.34			.25			.24		
-2 Log Likelihood	251.28			233.99			141.44		
Diff-2 Log				17.29			92.55		

Note. N=45 for level 2 and N=113 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Table 4 Direct Effects on Satisfaction with Work-Family Balance

Variable	Null Model			Model 1			Model 2		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Intercept	3.73	.14	27.50	2.94	.99	2.98**	2.94	.98	2.98**
<i>Level 1</i>									
Satisfaction with Work-Family Balance (Evening)				.13	.11	1.14	.15	.11	1.36
Positive Affect (Evening)				-.00	.11	-.04	.04	.12	.34
Positive Affect (Next Morning)				.29	.12	2.38*	.17	.11	1.58
Negative Affect (Evening)				-.08	.11	-.71	.01	.10	.07
Negative Affect (Next morning)							-.29	.13	-2.78*
Negative Family Reflection (Next morning)							.10	.13	.77
<i>Level 2</i>									
Age				.03	.02	1.70	.03	.02	1.70
Gender				-.21	.33	-.63	-.21	.33	-.63
Parental Status				.03	.29	.10	.03	.29	.10
Marital Status				-.22	.25	-.88	-.22	.25	-.88
Managerial Position				.31	.30	1.07	.32	.30	1.07
<i>Variance-Covariance Estimates</i>									
Level 2 variance	.71			.68			.69		
Level 1 variance	.27			.22			.20		
-2 Log Likelihood	264.48			256.65			254.67		
Diff-2 Log				7.83			1.98		

Note. N=45 for level 2 and N=113 for level 1; \* $p < .05$ . \*\* $p < .01$  (two tailed)

Hypotheses 4a-4c suggested indirect effects of family task overload, time pressure and interpersonal conflict with family members in the evening on satisfaction with work-family balance next morning through negative family reflection next morning. As shown in Tables 3 and 4, only family task overload positively predicted negative family reflection, and negative family reflection was not related to satisfaction with work-family balance. Thus the mediation effects of negative family reflection were not supported.

According to Hypotheses 5a and 5b, family task overload and time pressure in the evening predicts satisfaction with work-family balance next morning through negative affect next morning. However, since the relationships between family task overload and time pressure and negative affect were either opposite to the expected direction or insignificant, the mediation links among family task overload, time pressure and negative affect were not tested. Both Hypotheses 5a and 5b were not supported. Hypothesis 5c suggested the mediating relationship among interpersonal conflict with family members in the evening, negative affect next morning, and satisfaction with work-family balance next morning. Results also failed to support Hypothesis 5c because the relationships between interpersonal conflict with family members and negative family reflection and negative affect were both insignificant.

### **Multilevel Moderation Results**

Hypotheses 6a and 6b proposed that family task crafting moderated the positive relationships between family task overload and time pressure and negative family reflection, such that the positive relationships would be weaker when the level of family task crafting was higher. However, the interactions were not significant and did not support Hypotheses 6a and 6b. Hypotheses 7a and 7b stated the multilevel moderating effects of family task crafting on the

within-person relationships between family task events and negative affect, but the interactions were not significant so both Hypotheses 7a and 7b were not supported.

Hypotheses 8a and 8b indicated that family relational crafting would buffer the positive relationships between interpersonal conflict with family members and negative family reflection and negative affect. Results did not show support for these two hypotheses since none of the interactions were significant.

Since none of the moderation effects was supported, I did not test the moderated mediation in Hypotheses 9, 10, and 11.

## **Discussion**

The purpose of this study is to examine the dynamic relationships among negative family events, individuals' psychological reactions to them, and their satisfaction with work-family balance. By integrating CAPS and COR theories, I proposed and tested the direct and indirect influences of negative family events on satisfaction with work-family balance. Specifically, I suggested that employees facing higher levels of family task overload, family time pressure and interpersonal conflict with family members experienced higher levels of negative family reflection and negative affect, which in turn exacerbated their satisfaction with work-family balance. As expected, employees suffering more family task overload reported higher levels of negative family reflection, supporting the notion that family task overload represents the resource depletion and keeps people's negative thoughts activated about the family's excessive chores and tasks. However, family time pressure was not related to negative family reflection. A possible explanation is that, when facing family time pressure, people tend to get the family-related duties completed, leading to less or even no rumination the next morning. Contrary to the

hypothesized relationship, family task overload was found to lead to lower levels of negative affect. It is possible that juggling many family tasks and activities is the new normal for many individuals and they may have reconciled themselves to this state of affairs and don't mind that much, which leads to lower negative affect in response to such tasks. It is also possible that certain family tasks and chores may not be as undesirable and burdensome as one may think and hence may translate into a lower negative affect. Another possible explanation is that, since the mean for family task overload is 2.9, which is just about average, it may not truly capture the overload aspect in the sense that it exceeds individuals' capacities to deal with the tasks adequately. To the extent that the family task overload are perceived as being average in nature, individuals may not experience the downturn in their negative affect to the expected extent.

Interpersonal conflict with family members did not significantly predict negative family reflection or affect probably because of the relatively small sample size and observations that could not detect significant relationships in the study. Moreover, considering the self-regulatory resource in the form of proactive family crafting, I proposed that family crafting in terms of family task and relational crafting would buffer the detrimental effects of negative family events on employees' cognitive and affective reactions and their satisfaction with work-family balance. As explained before, family task crafting represents problem-solving strategies and, in the context of the family domain, enables individuals to restructure family roles to accommodate family demands. However, in the absence of a statistically significant relationship for the buffering role of family task crafting, one could look for alternative strategies that can be used to respond to family demands, such as paid domestic help (Havlovic & Keenan, 1995).

Similarly, since family relational crafting has failed to live up to its buffering role in the relationship between interpersonal conflict and negative psychological reactions, one could



speculate that the way that relational crafting was operationalized in the present study may be an inadequate strategy to deal with interpersonal conflict in the family domain. The relational conflict literature indicates several strategies for resolving interpersonal conflict such as using avoiding or comprising styles (Elsayed-Ekjiouly & Buda, 1996; Holt & DeVore, 2005). Although these strategies may play a role here, I did not consider them in my current study and will encourage future research to examine the effectiveness of a range of relational crafting strategies in response to interpersonal conflict.

Another possible explanation for these non-significant relationships could be simply on account of the low level of interpersonal conflict as evidenced by the low mean (1.54) for this construct. If infrequent or low levels of interpersonal conflict among family members exist, they may present few opportunities for employees to use relational crafting strategies for negotiating with family members or reaching out to family members to diffuse any simmering tensions.

### **Theoretical Implications**

This study has a number of theoretical implications. Theoretically, the findings contribute to the work-family literature by emphasizing the influence of family-related negative events on individuals' work-family experiences. Previous work-family literature has been dominated by a focus on work events (e.g., Matta, Erol-Korkmaz, Johnson, & Biçaksiz, 2014; Ohly & Schmitt, 2015), underestimating and neglecting the parallel sets of effects emanating from family events. By integrating the key tenets of CAPS and COR theories, this study proposed and found support for the notion that, at the within-person level, family task overload is detrimental to individuals' cognitive reflection. Also, consistent with COR theory, the findings offer empirical verification for the link between negative affect and satisfaction with work-family balance, thereby

demonstrating that fluctuations in employees' satisfaction with their work-family balance may be due to fluctuations in their affective reactions.

In addition, the current study sheds lights on the influence of family overload on employees' negative family reflection. However, the non-significant results for the mediating role of a negative family reflection in the relationship between undesirable family events and work-family balance limit some of the practical implications that can be drawn from the study. It is possible that, compared to the number of hours spent at work, the time spent in the family domain attending to family activities and members offers a relatively limited and condensed timeframe within which the researchers can adequately capture the unfolding family dynamics and individuals' cognitive, affective, and behavioral response to these dynamics. Even though this study used a daily diary approach to capture the subtleties of one's family life and its influence on satisfaction with work-family balance, it is possible that the one week period of time may not be long enough to adequately capture the family side of influences on work-family balance. Future research could possibly explore using longer periods of time in understanding fluctuations in work-family balance as well as examining the family dynamics during periods of 'busy' family activities (e.g., holidays, children's exams, or extra-curricular commitments).

In sum, the present study offers an important preliminary step toward shedding light on the family activities and dynamics that have been presumed to be instrumental in shaping work-family balance. Much more research needs to be undertaken to fully understand the when and why that family events influence one's satisfaction with work-family balance. Such an understanding is vital for employees seeking to lead fulfilling work and family lives.

## **Practical Implications**

This study has several managerial implications. First, the findings show that employees experiencing high family overload in the prior evening ruminate more about their family demands during work time the next morning. Organizations can thus provide family-friendly programs, such as flexibility arrangements or onsite care, for employees to handle their daily and tremendous family overload well. Moreover, in order to attenuate the deleterious influence of negative affective states and satisfaction with work-family balance, organizations could provide a positive working environment, which may help reduce employees' negative affect and benefit their assessments of their satisfaction with work-family balance.

## **Limitations and Future Research**

The present study has several limitations that need to be addressed. First, generalizability is an issue as the data is drawn from an online panel and all of the respondents are from the United States. In light of the concerns that online panel surveys may not represent the general population (Kraut et al., 2004), I suggest that future studies retest the model using more traditional data collection approaches. In addition, the sample size is relatively small at both the within-person (113) and between-person (45) level. Therefore, it is hard to guarantee the power size in the analysis and unfold some generalized findings across employees with different demographical backgrounds. Moreover, since all of the participants are living and working in the United States, it excludes the influence of any possible cultural factors. For example, previous research (e.g., Holt & DeVore, 2005) has shown that people from different cultural contexts tend to use different strategies for dealing with interpersonal conflict. Therefore, future research can

integrate culture-related theories and investigate the role of culture-specific factors that influence the downstream effect of family events on work-family balance.

Another limitation is that, since I only considered the negative family events instead of considering both positive and negative family events, little is known of how positive events play a role in the current model. Future research could explore how positive family events and experiences benefits people's work-family balance. In addition, the current study emphasizes the experiences of employees, ignoring whether their family members' own experiences will influence or be influenced by the focal employee's psychological reactions. Future studies could examine the possible crossover effects between employees and their family members' work-family experiences.

In this study, I did not find significant interactions of negative family events and family crafting that influenced negative family reflection and negative affect. As mentioned earlier, it is possible that other strategies instead of family crafting might be helpful in attenuating the detrimental influences of negative family events. For example, future research could examine the role of paid or unpaid domestic help that may provide additional resources to reduce family demands.

Another methodological limitation is the measure I used for family time pressure. For this study, I directly adapted the scale based on Semmer's (1984) scale for work time pressure. However, some items may not fit well into the family context. For example, one of the items stated that "I'm needed to perform faster than usual to finish my family activities." It is possible that people who need to perform faster than usual at home may not treat this phenomenon as a

negative event of family time pressure. Thus, I encourage scholars to apply or develop a more appropriate scale for measuring family time pressure.

Common method bias is another limitation since all of the measures were reported by the same source. However, I created a short time lag among the collection of independent variables (i.e., negative family events), mediators (i.e., psychological reactions), and outcomes (i.e., satisfaction with work-family balance), reducing the likelihood of common method bias (Podsakoff et al., 2003). Further, group mean centering helps to reduce the possibility of common method bias as well (Podsakoff et al., 2012).

### **Conclusion**

In integrating CAPS and COR theories, I proposed a theoretical model examining the direct and indirect effects of negative family events (i.e., family task overload, time pressure and interpersonal conflict) on negative family reflection and negative affect and satisfaction with work-family balance. I also proposed that family crafting helped to reduce the detrimental role of family events on employees' work-family balance. Findings from this study provide limited support to the above proposed linkages, such that not all negative family events lead to employees' negative cognitive and affective reactions and satisfaction with work-family balance. Despite the limited significance of the current results, this study still offers some important new insights into family experiences and dynamics and a better understanding of the different elements that go into shaping one's ongoing assessment of work-family balance.

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## Appendix A

### Invitation Letter

#### *How Do You Balance Your Work and Family Roles?*

What does your typical week look like? We are conducting a study to learn about how you go about your day fulfilling your various work commitments and family responsibilities. By sharing your experiences with us, we will be able to gain a deeper understanding of the real-time dynamics involved in juggling work and family roles. With your help, we will be able to provide critical data that can enable organizations to thoughtfully craft initiatives to help employees balance their work and family lives.

If you agree to participate, we will request you to complete a series of online surveys. For a period of one week, i.e., five consecutive workdays and two weekends (between Jan 26 and Feb 1), we request you to complete one three minute survey by 12:00 p.m., one five minute survey by 5:00 p.m., and one five minute survey by 9:00 p.m. for a total of 21 surveys. We will send you a reminder and survey link before the deadline for each survey via SMS at 10:00 a.m., 3:00 p.m. and 7:00 p.m.

In addition to the daily surveys, we request your responses to an initial and final survey so as to better understand the nature of your work and family experiences. Your participation is voluntary and completely confidential. Your responses will only be used for research purposes. We guarantee that NO ONE will have access to your completed surveys except for the researchers in this study.

As a small token of our appreciation for your willingness to participate in the surveys, we are offering \$3 for those who complete the initial or final survey. For the daily survey, we are offering \$0.50 per completed survey. In addition, if you complete 10-16 daily surveys on time, you will receive an extra \$ 2.50. If you complete 17-20 daily surveys on time, you will receive an additional \$ 7.50. And, if you complete all 21 daily surveys on time, you will receive another \$15 at the end of the study. Since this study aims to examine your experiences at specific times of the day and evening, completing the surveys on time is very important.

Thank you so much for all your time and honest responses! If you have any questions, please feel free to contact Min Wan (minwan@uwm.edu), Dr. Margaret Shaffer (shafferm@uwm.edu), and Dr. Romila Singh (Romila@uwm.edu).

*If you agree to participate, please visit **this link** and complete the initial survey. This survey is estimated to take between 15 and 20 minutes and you will be prompted with an informed consent form before you start the survey.*

Sincerely,

Min Wan, ABD

Organizations and Strategic Management  
Sheldon B. Lubar School of Business  
University of Wisconsin-Milwaukee  
3202 N. Maryland Ave  
Milwaukee, WI 53211

## **Appendix B**

Consent Form (Placed in the beginning of the survey)

### **University of Wisconsin – Milwaukee Consent to Participate in Research**

**Study Title:** A Typical Week in the Life of an Employee in the United States

**Persons Responsible for Research:** Dr. Margaret Shaffer and Dr. Romila Singh

**Study Description:** The purpose of this research study is to understand how you manage your work and family roles effectively on a day-to-day basis. By sharing your experience and perspectives, this study will help us gain a better understanding of the important events at work and home that matter most to you as you strive to manage work and family roles. There is negligible research in this area and your experience will help us offer recommendations to Human Resource executives, organizational decision-makers, and employees for positively influencing employees' efforts to balance their work and family roles.

If you agree to participate, you will be requested to complete a series of online surveys. For seven consecutive workdays and weekends (from Monday to Sunday), you will be asked to complete 21 online surveys at three times per day: one survey by noon (3 minutes), one survey by 5:00 p.m. (5-7 minutes), and one survey by 9:00 p.m. (5-7 minutes). These surveys will capture your work and family experiences throughout one week. In addition, there will be an initial 20-minute pre-survey so we can learn more about your work and family roles. At the end of this study, you will be asked to complete a 15-minute post-survey about your work and family experiences.

**Risks / Benefits:** Risks that you may experience from participating are considered minimal. Except for a small investment of your time, there are no costs for participating in this study. As an expression of our gratitude for your participation, we are offering \$ 3 for a completed pre- or post-survey. For the daily surveys, you will receive \$ 0.50 for each daily survey you complete. In addition, if you complete 10-16 daily surveys on time, you will receive an extra \$ 2.50. If you complete 17-20 daily surveys on time, you will receive an additional \$ 7.50. And, if you complete all 21 daily surveys on time, you will receive another \$15 at the end of the study. Since this study aims to understand your experiences at specific times of the day and evening, completing the surveys on time is very important. We will not be able to offer the corresponding reward if you miss a survey deadline.

**Confidentiality:** Please note that identifying information such as your e-mail and phone number will be collected **only** for research purposes so that we can match all the surveys completed by you. Specifically, we will use your phone number to send you links to the daily surveys. Since this study is time-constrained, we will send you reminders at certain time points (10:00 a.m., 3:00 p.m., and 7:00 p.m.) via the short message service (SMS). All the collected information be retained on the Qualtrics website until the end of the study and will be deleted after this time. However, the research team will keep the data for backups beyond the time frame of this research project. Data transferred from the survey site will be saved in an encrypted format for five years. Only Dr. Shaffer, Dr. Singh and Ms. Wan will have access to the data. However, the Institutional Human Research Protections may review this study's records. The research team

will remove your identifying information (e.g., e-mail and phone number) immediately after collecting and linking the data. All study results will be reported without identifying information such that no one viewing the results will ever be able to match you with your responses.

**Voluntary Participation:** Your participation in this study is voluntary. You may choose not to take part in this study, or if you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin-Milwaukee.

**Who do I contact for questions about the study?** For more information about the study or study procedures, please contact Min Wan at [minwan@uwm.edu](mailto:minwan@uwm.edu) or 414-229-2538.

**Who do I contact for questions about my rights or complaints towards my treatment as a research subject?** Contact the UWM IRB at 414-229-3173 or [irbinfo@uwm.edu](mailto:irbinfo@uwm.edu).

## **Appendix C**

### **Study Variables Codebook**

#### **Baseline Survey**

##### **Family Task Crafting**

Source: adapted Tims, Bakker, & Derks (2012)

Scale: 1=not at all to 5=most of the time

Below are questions asking your behaviors at home.

*To what extent have you...*

1. made sure that your family is mentally less intense?
2. tried to ensure that your family is emotionally less intense?
3. managed your family so that you try to minimize contact with family members whose problems affects you emotionally?
4. organized your family so as to minimize contact with family members whose expectations are unrealistic?
5. tried to ensure that you do not have to make difficult decisions at home?
6. organized your family in such a way to make sure that you do not have to concentrate for too long a period at once?

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, 80(1): 173-186.

##### **Family Relational Crafting**

Source: adapted from Ashford & Black (1996)

Scale: 1=not at all to 5=most of the time

Below are questions asking your behaviors at home.

*To what extent have you...*

1. negotiated with your family members about desirable family changes?
2. negotiated with your family members about your family responsibilities?
3. negotiated with your family members about the demands placed on you?
4. negotiated with your family members about their expectations of you?

Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology*, 81, 199–214.

##### **Demographic Information**



**Age** \_\_\_\_\_

**Gender**

- a. Male
- b. Female
- c. Other

**Marital status**

- a. Currently married or in a committed relationship
- b. Never married/single
- c. Divorced/Separated
- d. Widowed

**Parental status**

- a. Yes
- b. No

**Number of Children under 18 living at home** \_\_\_\_\_

**Spouse working status**

- a. Full-time employed
- b. Part-time employed
- c. Self employed
- d. Unemployed

**Work hours** \_\_\_\_\_

**Position**

- a. Top-level management
- b. Middle-level management
- c. Lower-level management
- d. Professional
- e. Non-management
- f. Technical

## Evening Survey (Workdays)

### **Satisfaction with work-family balance**

Source: Valcour (2007)

Scale: 1=not at all to 5=most of the time

*This evening, I've felt satisfied with...*

1. the way I divided my time between work and personal or family life.
2. the way I divided my attention between work and home.
3. how well my work life and my personal or family life fit together.
4. my ability to balance the needs of my job with those of my personal or family life.
5. the opportunity I had to perform my job well and yet be able to perform home-related duties adequately.

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, 92(6): 1512-1523.

### **Negative and positive affect**

Source: adapted from Watson, Clark, & Tellegen (1988)

Scale: 1=not at all to 5=most of the time

*This evening, I've felt...*

1. enthusiastic.
2. excited.
3. inspired.
4. angry.
5. nervous.
6. distress.

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(6): 1063-1070.

### **Family task overload**

Source: Cammann, Fichman, Jenkins, & Klesh (1983)

Scale: 1=strongly disagree to 5=strongly agree

*This evening,*

1. I've had too many family responsibilities to do everything well.

2. The amount of work I was asked to do at home has been fair (R).
3. I never seemed to have enough time to get everything done for my family.

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. R. (1983). Assessing the attitudes and perceptions of organizational members. In S. Seashore, E. Lawler, O. Mirvis, & C. Cammann (Eds.), *Assessing organizational change: A guide to methods, measures, and practices* (pp.71-138). New York: Wiley.

### **Family time pressure**

Source: adapted from Semmer (1984)

Scale: 1=strongly disagree to 5=strongly agree

*This evening,*

1. I've been under time pressure.
2. I've needed to perform faster than usual to finish my family activities.
3. I've been required to perform quickly in order to finish my family duties.

Semmer, N. (1984). Streßbezogene Tätigkeitsanalyse [Stress-oriented task-analysis]. Weinheim, Germany: Beltz.

### **Interpersonal conflict with family members**

Source: adapted Illies, Johnson, Judge, & Keeney (2011)

Scale: 1=strongly disagree to 5=strongly agree

*This evening,*

1. I've had a fight with my family members over a family-related issue.
2. Family members have shown disapproval of the way I handled a family situation.
3. Family members have taken jabs at or needled me.
4. I've had to explain an improper behavior or action to family members.

Ilies, R., Johnson, M. D., Judge, T. A., & Keeney, J. (2011). A within-individual study of interpersonal conflict as a work stressor: Dispositional and situational moderators. *Journal of Organizational Behavior*, 32(1): 44-64.

## Morning Survey (Workdays)

### **Satisfaction with work-family balance**

Source: Valcour (2007)

Scale: 1=not at all to 5=most of the time

*This morning, I've felt satisfied with...*

1. the way I divided my time between work and personal or family life.
2. the way I divided my attention between work and home.
3. how well my work life and my personal or family life fit together.
4. my ability to balance the needs of my job with those of my personal or family life.
5. the opportunity I had to perform my job well and yet be able to perform home-related duties adequately.

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, 92(6): 1512-1523.

### **Negative and positive affect**

Source: adapted from Watson, Clark, & Tellegen (1988)

Scale: 1=not at all to 5=most of the time

*This morning, I've felt...*

1. enthusiastic.
2. excited.
3. inspired.
4. angry.
5. nervous.
6. distress.

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(6): 1063-1070.

### **Negative family reflection**

Source: adapted from Fritz & Sonnentag (2006)

Scale: 1=not at all to 5=most of the time

*This morning,*

1. I've realized what I did not like about my family life.

2. I've considered the negative aspects of my family life.
3. I've noticed what is negative about my family life.

Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: the role of workload and vacation experiences. *Journal of Applied Psychology*, 91(4): 936-945.

## **Concluding Remarks**

Work-nonwork balance has been such an important and resonated topic for employees from a variety of organizations, industries, and cultures. In this dissertation, I summarized the concepts, theories, methodologies, antecedents, and outcomes of work-nonwork balance, providing a bunch of directions for future research. In response to some directions in Essay 1, I specifically focused on the dynamic aspect of work-family balance (a typical type of work-nonwork balance) in Essays 2 and 3. Building on CAPS and COR theories, I proposed a model examining how daily, negative work and family events trigger different levels of work-family balance through people's psychological reactions. The findings indicated that certain amount of negative work and family events had effects on individuals' cognitive and affective reactions and their daily assessment of work-family balance. I also found evidence indicating the unexpected boundary condition of job crafting. This dissertation mainly contributes to provide theoretical and empirical support indicating how work-nonwork balance is influenced by psychological factors and external stimuli from both work and family domains over time. Admittedly, the findings of the dissertation are exploratory in regard to capturing the temporal aspect of work-nonwork balance. I suggest scholars provide supplementary and complementary evidence on the dynamic work-nonwork balance based on the current findings in order to contribute to the theorizing and methodological advances of work-nonwork balance research.

## **CURRICULUM VITAE**

**Min (Maggie) Wan**

Sheldon B. Lubar School of Business  
University of Wisconsin-Milwaukee  
3202 N. Maryland Avenue  
Milwaukee, WI 53211

### **EDUCATION**

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Ph.D., Organizations and Strategic Management 2012-2016

Concentrations: Organizational Behavior and International Management

University of Wisconsin-Milwaukee, Milwaukee, WI, USA

Advisors: Margaret Shaffer and Romila Singh (Co-Chairs)

Dissertation Title: Three Essays on Work-Nonwork Balance

M.S., Human Resource Management 2010

Guizhou University, Guizhou, China

B.A., Human Resource Management 2007

Guizhou University, Guizhou, China

### **RESEARCH INTERESTS**

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- Work-Nonwork Balance
- Work-Nonwork Interface
- Cross-Cultural Management

## **PUBLICATION AND MANUSCRIPTS UNDER REVIEW**

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Fouad, N., Singh, R., Cappaert, K. A., Chang, W. H., & Wan, M. (2016). Comparison of women engineers who persist in or depart from engineering. *Journal of Vocational Behavior*, 92, 79-93.

Fouad, N., Chang, W. H., Wan, M., & Singh, R. (Under 1<sup>st</sup> review). Women's departure from engineering: Reasons for leaving. *Journal of Women and Minorities in Science and Engineering*.

## **BOOK CHAPTER**

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Wan, M., Singh, R., & Shaffer, M. A. (2017). Global families. In Yvonne McNulty & Jan Selmer (Eds.). *Research Handbook of Expatriates*, Cheltenham, Edward Elgar (Forthcoming)

## **WORKING PAPERS**

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Singh, R., Shaffer, M. A., Dimitrova, M., Wan, M., Zhang, M., & Luk, D. M. (In preparation). A three study multi-source examination of the spillover-crossover model of work-family interface. Target: *Organizational Behavior and Human Decision Process*.

Singh, R., Shaffer, M. A., Wan, M., & Joplin, J. R. W. (In preparation). Psychological withdrawal on international assignments: Work and family matter. Target: *Journal of International Business Studies*.

Singh, R., Fouad, N., Wan, M., & Cappaert, K. (In preparation). The relationships between women engineers' self-efficacy, work-family conflict, job attitudes and turnover intention. Target: *Journal of Vocational Behavior*.

Wan, M. (In preparation). Multicultural identity in organizational settings: Where are we now and where should we go? Target: *Journal of International Business Studies*.



## CONFERENCE PRESENTATIONS

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- Singh, R., Wan, M., Dimitrova, M., & Luk, D. M. (2015). A three study multi-source examination of the spillover-crossover model of work-family interface. Accepted for presentation at the *Academy of Management Annual Meeting*, Vancouver, Canada.
- Wan, M., Shaffer, M.A., Francesco, A. M., Joplin, J. R. W., Lau, T., & Cheung, E. (2015). Cross-domain communication technology, work-family interface and life satisfaction. Accepted for presentation at the *Academy of Management Annual Meeting*, Vancouver, Canada.
- Wan, M., Shaffer, M. A., Francesco, A. M., Joplin, J. R. W., Lau, T., & Cheung, E. (2014). Cross-domain communication and technology usage and the work-family interface. Presented at the *Society for Industrial and Organizational Psychology Conference*, Honolulu, HI.
- Wan, M., & Singh, R. (2014). I am more than meets the eye: Role identity expression and work-family interface. Presented at the *Work and Family Researchers Network Conference*, New York City, NY.
- Wan, M., Singh, R., Shaffer, M. A., & Joplin, J. R.W. (2014). Scaling back on international assignments: Work and family matter. Presented at the *Work and Family Researchers Network Conference*, New York City, NY.

## AWARDS

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- Roger L. Fitzsimonds Doctoral Scholarship, Sheldon B. Lubar School of Business 2015-2016  
University of Wisconsin-Milwaukee
- Lubar Doctoral Scholarship, Sheldon B. Lubar School of Business 2014-2015  
University of Wisconsin-Milwaukee
- Election of Membership in Beta Gamma Sigma Honor Society 2014  
University of Wisconsin-Milwaukee
- Chancellor's Fellowship, Sheldon B. Lubar School of Business 2012-2013  
University of Wisconsin-Milwaukee

## TEACHING EXPERIENCE

---

**Sheldon B. Lubar School of Business, University of Wisconsin-Milwaukee, Milwaukee, USA**

- Managing and Negotiating Across Cultures 2014  
(M.B.A., Teaching Assistant) (4.3/5 SFQ)
- International Business (Undergraduate, Lecturer) (4.65/5 SFQ) 2015
- International Business (Undergraduate, Lecturer) (4.59/5 SFQ) 2015
- Industrial Psychology (Undergraduate, Lecturer) (4.76/5 SFQ) 2015
- Organizational Behavior (Undergraduate, Lecturer) (4.90/5 SFQ) 2015
- Industrial Psychology (Undergraduate, Lecturer) 2016
- Organizational Behavior (Undergraduate, Lecturer) 2016

## PROFESSIONAL AND SERVICE ACTIVITIES

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- President, Organizations and Strategic Management Academic Club 2013-2015  
University of Wisconsin-Milwaukee
- Reviewer, Academy of Management Annual Meeting 2014-2015
- Reviewer, Academy of International Business Annual Meeting 2014-2015
- Member, Academy of Management 2013-present
- Member, Society for Industrial and Organizational Psychology 2013-present
- Member, Academy of International Business 2013-present