2008

Psychological detachment as a moderator in work-family conflict relationships

Lauren Ann Murphy
Portland State University

Let us know how access to this document benefits you.

THESIS APPROVAL

The abstract and thesis of Lauren Ann Murphy for the Master of Science in Psychology were presented December 12, 2008, and accepted by the thesis committee and the department.

COMMITTEE APPROVALS:

Leslie Hammer, Chair

Mo Wang

Katherine McDonald

DEPARTMENT APPROVAL:

Sherwin Davidson, Chair
Department of Psychology

ABSTRACT

An abstract of the thesis of Lauren Ann Murphy for the Master of Science in
Psychology presented December 12, 2008.

Title: Psychological Detachment as a Moderator in Work-family Conflict

Relationships.

Psychological detachment from work during off-job time has great significance
in the field of Occupational Health Psychology because it affects the process of work
recovery. Recovery from work helps people to achieve a work-life balance that leads
to psychological health and general well-being.

Applying Hobfoll's (1989, 2001) conservation of resources (COR) theory and
Meijman and Mulder's (1998) effort-recovery model, this study proposed that
psychological detachment from work during off-job time is a moderator of the
relationship between work-family conflict and emotional exhaustion. It was also
proposed that work-family conflict is a predictor of work engagement, a construct
gaining in popularity because of increased interest in positive psychology, as
moderated by psychological detachment from work.

Two-hundred ninety-five Chinese salespeople working around 40 hours per
week were recruited as participants. The sample consisted of more male participants
(52%) with an average age of 33 years. The average participant had 7.44 years of
experience in his/her job and worked 43 hours per week. Sixty-nine percent of

participants were married or living as married, with 53% having at least one child and 44% providing care for at least one elderly parent.

Two-step hierarchal multiple regression analyses were used to determine the significance of each proposed relationship. Age, gender, marital status, parental status, elder care status, job tenure, and hours worked per week were all entered in the first step. Each predictor variable was then entered in Step 2. Work-family conflict did not predict increased emotional exhaustion or decreased work engagement as hypothesized. Additionally, the proposed moderations were not significant and it is not known from this study if psychological detachment from work has an effect on work-family conflict. Explanations for the results of this study are discussed and future research is recommended in order to further explore the potential impact of psychological detachment on stressors such as work-family conflict.

PSYCHOLOGICAL DETACHMENT AS A MODERATOR IN

WORK-FAMILY CONFLICT RELATIONSHIPS

by

LAUREN ANN MURPHY

A thesis submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE
in
PSYCHOLOGY

Portland State University
2009

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Time is a precious commodity; you can never regain it once it is gone. The time that one has to dedicate to anything in life is restricted by the time one spends at work. Work is a necessity that sets an upper boundary on the amount of time that remains for other activities (Jacobs & Gerson, 2001). Some researchers have found that American workers are spending increasingly more time at work than their parents or grandparents had spent at work, thereby reducing the amount of time left for leisure (Bond, Galinsky, & Swanberg, 1997; Hochschild, 1997; Mishel, Bernstein, & Schmitt, 1999). Other researchers have found that the length of the average work week has changed relatively little in recent decades (Jacobs & Gerson, 1998; Jacobs & Gerson, 2001; Rones, Ilg, & Gardner, 1997).

There is less confusion when it comes to the Chinese work week. China implemented a new work system with five workdays and two weekend days, equating to 40-hour work weeks instead of the previous 48-hour work weeks (with employees working six days each week) (Yin, 2005). Even with the decrease in the average Chinese work week and the questionable reduction in the number of hours Americans are working each week, research has shown that the prevalence of job stress is increasing (Kahn & Langlieb, 2003), which has major consequences for organizations and employees. Therefore, examining such things as the way people spend their off-job time and the extent to which they detach from work is of great importance for determining if people are recovering from job stress.

Job stressors are potentially threatening or demanding events in the environment that require an adaptive response (Ivancevich & Matteson, 1980). They can result in either positive or negative individual outcomes, but it is the negative outcomes, known as strains, that are generally studied in the occupational health literature. Specifically, strains are proximal outcomes of stressors that are categorized into three types: behavioral, physical, and psychological (Beehr & Glazer, 2005; Jex & Beehr, 1991). Behavioral strains are an individual's voluntary responses to stressors that can cause him/her harm, such as smoking cigarettes, excessive alcohol consumption, or planning to commit suicide. Physiological strains are the body's reactions to stressors that vary to the extent that they affect health, and such strains include high blood pressure, muscle twitches, and coronary heart disease. Psychological strains are an individual's mental experiences in response to stressors and they include anxiety, depression, and burnout.

The consequences of experiencing strains are longer term negative performance, health, and well-being outcomes (Kahn & Byosiere, 1992). Burnout has been long-studied as a stress-related mental health outcome (i.e., a psychological strain) in both the job stress-illness and work-family literatures (Barnett, Gareis, & Brennan, 1999). The consequences of burnout are a major concern to organizations because negative work outcomes like lowered job performance (Jex, 1998; Tubre & Collins, 2000), decreased job satisfaction (Maslach & Jackson, 1981; Hagen, 1989; Singh, Goolsby, & Rhoads, 1994), absenteeism (Goff, Mount, & Jamison, 1990), increased turnover intentions (Cropanzano, Rupp, & Byrne, 2003; Wright &

Cropanzano, 1998), actual turnover (Maslach, Schaufeli, & Leiter, 2001), and lost productivity and disability claims (Spector, Chen, & O'Connell, 2000; Xie & Schaubroeck, 2001) cost billions of dollars. Organizational commitment (Lee & Ashforth, 1996; Leiter & Maslach, 1988) and contextual performance (Cropanzano et al., 2003) are additional organizational outcomes affected by burnout. Maslach & Leiter (2008) stated the importance of finding early indicators that lead to burnout in order to create effective preventative interventions that organizations can use to avoid the resulting costs of burnout. Economically, it is best to prevent burnout in workers from the beginning by discovering the stressors leading to the strain and stopping the problem at its source rather than waiting until the problem has already occurred. Work-family conflict, a commonly studied stressor that has been shown to lead to burnout (Burke, 1994; Lee & Ashforth, 1996; Peeters, Montgomery, Bakker, & Schaufeli, 2005), can be one point of intervention to prevent burnout before it begins.

Burnout is associated with such negative health outcomes as depression, anxiety, and lowered self-esteem (Aronsson, Svensson, & Gustafsson, 2003; De Lange, Taris, Kompier, Houtman, & Bongers, 2003; Johansson, Evans, Rydstedt, & Carrere, 1998; Maslach et al., 2001) It is found in countries like the United States and China (Lushington & Luscri, 2001; Wu, Zhu, Wang, Wang, & Lan, 2007). It has been shown that psychological and physiological well-being are reduced as a consequence of burnout (Schaufeli & Buunk, 2003; Schaufeli & Enzmann, 1998). Such decreased well-being has considerable consequences for both work- and nonwork-related aspects of life. Therefore, with the abundance of research pointing to the negative

consequences of burnout for both individuals and organizations, the importance of finding ways to reduce job stress as a predictor is critical (Jawahar, Stone, & Kisamore, 2007).

Time away from work is an essential way to counteract job stressors and to maintain a person's well-being, as shown through such research as that of Totterdell, Spelten, Smith, Barton, and Folkard (1995), where individuals' well-being increased with each additional day off from work. Studies conducted in the leisure sciences field have also shown that leisure activities, particularly physical and social activities, contribute to an individual's health and well-being (Sonnentag, 2001). What needs further examination is the mechanisms though which people are able to recover from work while they are not present in the work environment. Etzion, Eden, and Lapidot (1998) found that even unpleasant activities that people participate in away from work, such as military service, can decrease burnout when people are highly psychologically detached from their jobs. Psychological detachment from work is one possible mechanism for people to recover from job stressors because they are not physically or mentally engaged in work-related thoughts or activities. Therefore, they may not be using the same resources or the same intensity of particular resources that are used during work. Those resources necessary for work can then be recuperated during off-job time so that recovery can occur.

Present Study

The aim of the present study is to substantiate that psychological detachment from work is the underlying mechanism through which people are able to recover

from job stressors using a longitudinal design. Work-family conflict is a particular stressor that will be used as the predictor to determine the effects of psychological detachment from work as a moderator of both the emotional exhaustion component of burnout and work engagement. It is also a goal of this study to confirm results from a study by Aronsson et al. (2003) in which they found that recovery from work can be divided into three clusters: "alert," "in-between," and "nonrecuperated." Finding different levels of psychological detachment from work will lead to future research that examines reasons why some people are able to detach from work to a greater extent than others. Overall, this study will examine the moderating effects of psychological detachment from work on the relationships between work-family conflict and both emotional exhaustion and work engagement (See Figure 1.).

The present study is contributing to research in numerous and important ways. The first contribution to the literature is that using psychological detachment during off-job time as a moderator is not yet substantiated by much research. Even though there is some evidence in support of psychological detachment as a moderator (e.g., Etzion et al., 1998), more is needed. Also, this study is addressing a major point in the psychological detachment literature that has not been adequately distinguished; the level of psychological detachment needs to be researched. The distinction between levels of psychological detachment, which have been labeled as alert, in-between, and unrecuperated by Aronsson et al. (2003), is necessary because the level of psychological detachment from work will either enhance or deteriorate the effects of the predictor on the outcome.

The second contribution is that the construct of work engagement is fairly new and the relationship between work-family conflict and work engagement has yet to be examined. Also, the construct has mostly been researched cross-sectionally, with the exceptions of a study by Llorens, Schaufeli, Bakker, and Salanova (2007) and a two-year longitudinal study by Mauno, Kinnunen, and Ruokolainen (2007). Therefore, the longitudinal design of the current study, which is valuable in its own right, also adds to the work engagement literature. A third contribution is the examination of both work-to-family and family-to-work conflict in relation to the emotional exhaustion component of burnout using a longitudinal design. Much of the past research examining the work-family conflict-burnout relationship has been cross-sectional and has not differentiated between work-to-family and family-to-work conflict, which have been shown to lead to different outcomes (Adams, King, & King, 1996; Frone, 2003; Frone, Yardley, & Markel, 1997; O'Driscoll, Ilgen, & Hildreth, 1992).

In addition to the contributions just summarized, another aspect of this study will also add to the literature. Work-family conflict and burnout have been neglected in past research in regards to the occupation of sales in collectivist cultures (Babin & Boles, 1996; Boles, Johnston, & Hair, Jr., 1997; Good et al., 1996; Singh et al., 1994). Such an aspect is important because salespeople experience high levels of work-related role stress (Sager, 1994), which relates to work-family conflict (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) and also to the emotional exhaustion component of burnout (Low, Cravens, Grant, & Moncrief, 2001).

CHAPTER 2: THEORETICAL BACKGROUND

Conservation of Resources Theory

Resources that are depleted during work need to be recovered during off-job time in order for people to maintain and even improve well-being, job performance, and other work and nonwork outcomes. Hobfoll (1989, 1998, 2001) proposed through the conservation of resources (COR) theory that people try to acquire, maintain, and protect resources. As will be made apparent, COR theory can be used to explain the depletion of resources in work-family relationships. It can also be used to explain the replenishment of resources using psychological detachment from work.

Resources are valued objects, personal characteristics, conditions, or energies (Hobfoll, 1989). They can be external to the person, such as financial assets, or internally possessed, such as personality traits. Objects have a direct use or they convey status, such as food or a nice car, respectively. Personal characteristics, like self-esteem, are valued because they aid stress resistance. Conditions are resources to the extent that they are desired, such as tenure and marriage. Energies, such as time, money, and knowledge, help people gain other resources.

Resources can be found in both work and nonwork domains. For example, conditions like tenure and marital status are coveted work and family resources, respectively (Grandey & Cropanzano, 1999). Individuals are compelled to protect their resources from three possible circumstances: when resources are threatened, when resources are lost, or when individuals do not receive the results they expected after investing their resources (Hobfoll, 1989). Resources can be threatened or

depleted by such things as stress, ill health, decreased well-being, or even an unfavorable work environment (Hobfoll, 1998). As a consequence of the loss of certain resources, additional resources are then needed in order to: 1) regain what has been lost to improve personal situations and 2) gain new resources to avoid future distress. When daily distress threatens resources, it usually leads to the loss of internal resources, such as positive mood and energy (Sonnentag, 2001). If individuals do not attempt to protect or replace their resources, they will experience burnout (Grandey & Cropanzano, 1999; Shirom, 2003).

Effort-Recovery Model

Meijman and Mulder's (1998) effort-recovery model is a theory that deals directly with recovering those resources expended at work during off-job time. Dealing with work demands by expending effort during work hours leads to certain load reactions in workers, comprising of behavioral, subjective, and physiological responses. Load reactions are reversible after work demands are no longer affecting the worker. Recovery can take place when no further demands are being placed on the worker because the psychobiological systems return to their base levels. Any negative stress effects acquired during work hours, like fatigue, are reduced as a result of the recovery process. When the recovery process is unable to take place because of incessant demands being placed on workers, even during off-job time through lack of psychological detachment, load reactions can build and cause long-term negative effects like ill health and decreased well-being. Sonnentag (2001) offered the example of someone who has a job that places high demands on his/her cognitive functioning;

recovery will occur by reducing cognitive demands during off-job time by perhaps engaging in physical activities.

Using the effort-recovery model (Meijman & Mulder, 1998) and COR theory (Hobfoll, 1989, 1998, 2001) together, psychological detachment from work will lead to recovery because psychological detachment occurs during off-job time so that previous work demands are no longer being placed on the worker (e.g., effort-recovery model) and workers can restore the resources they lose or deplete during the workday by psychologically detaching from work while at home so that they are no longer tapping the same resources or are using the same resources in different ways (e.g., COR theory).

CHAPTER 3: BACKGROUND LITERATURE AND HYPOTHESIS

DEVELOPMENT

Work-family Conflict

Greenhaus and Beutell (1985) defined work-family conflict as "a form of interrole conflict in which the role pressures from work and family domains are mutually incompatible in some respect" (p. 77). The current operational definition of work-family conflict is consistent with Frone, Russell, and Cooper (1992) who suggested that the concept is bidirectional: work-to-family conflict is the interference of the work domain with the family domain and family-to-work conflict is the interference of the family domain with the work domain. The antecedents of both work-to-family and family-to-work conflict include job stressors, family stressors, job involvement, and family involvement (Greenhaus & Beutell, 1985; Frone, et al., 1992).

To support the notion that work-to-family and family-to-work conflict need to be separated, Burke and Greenglass (2001) found that higher levels of work-to-family conflict were reported by nurses than family-to-work conflict. Also in support of separate constructs, each was predicted by different variables, with work-to-family conflict being predicted by job stressors and family-to-work conflict being predicted by individual characteristics (Burke & Greenglass, 2001). Differentiating between work-to-family and family-to-work conflict is important with regard to psychological detachment from work. Since the level of psychological detachment from work varies between individuals (Aronsson et al., 2003) it may affect family-to-work conflict

differently since psychological detachment can be thought of as an individual characteristic. Also, detachment occurs in the family domain, and distress in the family domain may directly affect detachment by reducing people's opportunities to regain resources they lost during the workday. Consequently, the strain in the work domain is increased because people arrive to work already depleted of the resources needed to handle job demands. Since psychological detachment is a construct that pertains specifically to work, work-to-family conflict may be affected when the strain of the workday then carries over into the family domain, leading to people being less able to detach from work and leaving less time to handle the demands of the family domain.

The daily stress of work-to-family conflict can deplete people's energy or time resources (Hobfoll & Shirom, 2001) if an individual works overtime, brings work home to finish, or thinks about work-related issues at home in order to get ahead for the next day. Zohar, Tzischinski, and Epstein (2003) found that dealing with situational constraints or time pressures at work caused individuals to feel fatigued at home, which resulted in reduced internal resources, theoretically leading to work-to-family conflict. Family-to-work conflict can occur when family issues, like child care or relationship problems, draw on a person's valuable resources and then those depleted resources create work problems. Grandey and Cropanzano (1999), advocating for COR theory to be utilized in work-family research, stated that three resources are particularly important when discussing work-family conflict: 1) conditions, such as being a care-giver to children or elderly parents, 2) personal

characteristics that protect against stress, like self-esteem, and 3) energies, such as

time, knowledge, and money, that allow people to obtain additional resources.

Reduced resources resulting from work-family conflict predict numerous

outcomes. When investigating individual outcomes, work-family conflict negatively

impacts well-being (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005) and life

satisfaction (Duxbury & Higgins, 1991), while positively impacting depression

(Hammer, Bauer, & Grandey, 2003; Major, Klein, & Ehrhart, 2002), alcohol use

(Frone, Russell, & Cooper, 1993), and psychological strain (Barling, MacEwen,

Kelloway, & Higginbottom, 1994). Regarding the family domain, research has found

that work-family conflict negatively affects family well-being (Parasuraman,

Greenhaus, & Granrose, 1992), marital well-being (MacEwen & Barling, 1994), and

family performance (Frone et al., 1997). Research has shown that, with regard to the

work domain, work-family conflict increases absenteeism (Hammer et al., 2003),

work distress (Frone et al., 1992), and burnout (Burke, 1994) while negatively

affecting job performance (Frone et al., 1997).

The negative outcomes of work-family conflict have been found in people with

diverse occupations working in numerous work environments. Yet, the work-related

outcomes pertaining to work-family conflict have not been clearly established in such

a "customer-contact position" as sales (Boles & Babin, 1996). Dubinsky, Howell,

Ingram, and Bellenger (1986) purported that the sales profession is unique when

compared to other professions in that it puts unusual pressure on its employees with a

combination of psychological strain, time demands, performance orientation, and

work-related role stress. Such an array of demands cannot be tolerated for an extensive amount of time without consequences, and research has shown that one major consequence of such demands from the work environment is increased levels of work-family conflict. As mentioned previously, research has also shown that work-family conflict is not an end result and that it leads to such detrimental outcomes as burnout (Burke, 1994).

Emotional Exhaustion as a Component of Burnout

When individuals are exposed to chronic stressors at work, it is more likely that they will then experience such negative strain outcomes as burnout (Anderson, 1991; Peiro, Gonzalez-Roma, Tordera, & Manas, 2001; Shirom, 2003). Indeed, there have been numerous reviews of the burnout literature, such as those completed by Burke and Richardson (2000), Cordes and Dougherty (1993), Hobfoll and Shirom (2001), Moore (2000), Schaufeli and Enzmann (1998), and Shirom (1989), which have described burnout as a consequence of workers' overexposure to chronic stressors. Examples of chronic role stressors that may lead to burnout are role ambiguity, role conflict, and quantitative and qualitative role overload (Lee & Ashforth, 1996; Peeters et al., 2005), which are role stressors that are also antecedents to work-family conflict.

A majority of burnout research has involved participants who are employed in teaching, health care, and other "caring" occupations where interacting with many people is mandatory (Jackson, Schwab, & Schuler, 1986). Even though the sales profession entails working with customers, the requirements differ from those of teaching and health care professions where there is more human connection that

necessitates being closer on a psychological level to those they work with on a daily basis. Leiter and Schaufeli (1996) modified the original conceptualization of burnout so that workers who experience burnout are those workers who are usually engaged with their jobs on a deep psychological level. As a result of that definitional modification, the burnout construct was expanded to a greater number of types of workers.

At this point, it should be clear that burnout is a psychological construct that is generally examined as a negative outcome in stress-related research. As it was originally conceptualized, burnout is composed of three distinct psychological components: emotional exhaustion, depersonalization, and feelings of low personal accomplishment (Jackson et al., 1986; Maslach, 1982). Emotional exhaustion describes an individual feeling depleted of emotional resources, and it is regarded as the basic individual stress component of burnout (Jackson et al., 1986). Interacting with and assisting many people on a daily basis is an example of dealing with high emotional and psychological demands, which can cause emotional exhaustion. Yet, interpersonal interactions are not necessarily the cause of depleted emotional resources (Schaufeli, Martinez, Marques-Pinto, Salanova, & Bakker, 2002), which is consistent with Leiter and Schaufeli's (1996) redefinition of burnout. People who experience emotional exhaustion most likely have jobs that are complex, as the word exhaustion implies an intense workload (Schaufeli, et al., 2002). The interpersonal component of burnout is depersonalization, also referred to as cynicism, which is feeling negative, cynical, and excessively detached from other people at work (Jackson et al., 1986).

Depersonalization involves treating people as if they are objects and referring to them using object labels instead of their personal names. More recent conceptualizations of burnout regard depersonalization as an "indifference or a distant attitude toward work in general, not necessarily with other people" (p. 465, Schaufeli et al., 2002). The self-evaluation component of burnout has been labeled as reduced personal efficacy, feelings of low personal accomplishment, or inefficacy, and it refers to feeling a lowered sense of self-efficacy and feeling that one's competence and productivity are declining (Jackson et al., 1986). People with feelings of low personal accomplishment believe their continual efforts do not give them the desired results they are looking for at work and they therefore stop trying.

Those who advocate for burnout to be considered multidimensional believe burnout to be too complicated to represent otherwise because it describes an entire process that threatens employees' resources (Goolsby, 1992; Maslach et al., 2001; Shirom, 2003). Other researchers have developed different conceptualizations for the process of burnout (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Pines, Aronson, & Kafry, 1981; Shirom, 1989) that all include emotional exhaustion as the core component of burnout (as cited in Halbesleben & Bowler, 2007). Shirom (1989) presented burnout as "an affective reaction to ongoing stress whose core content is the gradual depletion over time of individuals' intrinsic energetic resources, including the expression of emotional exhaustion, physical fatigue, and cognitive weariness" (as cited in Shirom, 2003, pp. 245). As can be seen from such a definition, the emotional exhaustion component is mentioned in regard to losing energetic resources while

depersonalization and reduced personal efficacy are ignored, negating the multidimensionality of burnout.

Accordingly, emotional exhaustion has frequently been regarded as the primary component of burnout (Shirom, 2003). Most studies have shown it to be the most internally consistent and stable component compared to depersonalization and reduced personal accomplishment (Schaufeli & Enzmann, 1998). In fact, few researchers have been able to find particular antecedents leading to all three components of burnout (Lee & Ashforth, 1996; Schaufeli & Enzmann, 1998). It is usually the case that depersonalization occurs as a result of emotional exhaustion (Leiter, 1993), which then leads to reduced personal accomplishment (Leiter & Maslach, 1988). Golembiewski and his colleagues provided substantial evidence that supports the idea that emotional exhaustion does not have to be simultaneously accompanied by the other two burnout components (Shirom, 2003).

Further support for researching emotional exhaustion as a separate construct comes in the form of reviews, both meta-analyses and literature reviews. Meta-analytic reviews have revealed emotional exhaustion to be the most responsive component to the intensity and nature of job stress (Shirom, 2003). Lee and Ashforth (1996) conducted a meta-analysis and found that the emotional exhaustion component of burnout relates more to both job demands and resource loss than do either depersonalization or reduced personal efficacy. Kossek and Ozeki (1999) conducted a literature review pertaining to the relationship between work-family conflict and six work outcomes, including burnout. They found that eight out of the nine reviewed

studies determined work-family conflict to be correlated with only emotional exhaustion. Emotional exhaustion seems to be the component most likely to be affected by work-family conflict. Such effects as being depleted of emotional resources can carry over and greatly impact the family domain, whereas depersonalization and reduced personal efficacy are more focused on the work domain.

As previously discussed, the implications of emotional exhaustion can greatly affect individuals and also the organizations for which they work. Appels and Mulder (1988, 1989) found that feeling exhausted at the end of the day or feeling tired after waking up in the morning were possible antecedents of cardiovascular heart disease (as cited in Shirom, 2003). They also found that people who were high on a measure of vital exhaustion, which is the combination of burnout, depression, and anxiety, were significantly more susceptible to developing myocardial infarction within four years of the initial screening, after controlling for known risk factors like smoking, high blood pressure, age, and high cholesterol. Emotional exhaustion impacts organizational outcomes as well as individual outcomes because depleted individual resources will affect workers' job outcomes, which then affect organizational effectiveness (Goolsby, 1992).

Specific to the participants in the present study, research has shown that emotional exhaustion is more common among workers in "boundary spanning positions" (Etzion, 1984; Singh et al., 1994). Sales is a boundary spanning position where employees are expected to interact with many people, who are both inside and

outside of their organization and who have different needs and expectations (Goolsby, 1992). Salespeople are expected to be skilled professionals as well as be personally concerned about their customers (Goolsby, 1992), all of which can lead to emotional exhaustion. An aspect of sales that may contribute to work-family conflict, which leads to burnout, is the travel requirements (Boles et al., 1997) because traveling takes people away from their homes for extended periods of time. Overall, salespeople can identify with the following antecedents of emotional exhaustion: 1) high levels of interpersonal interaction, 2) high levels of work-related role stress, and 3) high levels of nonwork-related role stress (Etzion, 1984).

Although burnout has been greatly studied in empirical research, more is needed (Schaufeli et al., 2002). Schaufeli et al. (2002) outlined three trends regarding burnout that are expanding the area of research. First, the concept of burnout has been extended to all types of professional and occupational groups so that it is not just studied in the human services fields (e.g., health care, education, and social work). The initial assumption that burnout occurred exclusively among employees whose occupations focus on helping people was an artifact from the almost universal use of the original Maslach Burnout Inventory (MBI) (Schaufeli et al., 2002). Second, burnout, which is a concept that was almost predominantly studied in North America in the late 1980s and early 1990s, is now a concept that is studied internationally. Lastly, there has been a shift in burnout research toward studying work engagement as a positive construct. The design of the present study addresses all three expansion

issues by examining both the emotional exhaustion component of burnout and work engagement in a group of Chinese salespeople.

Work-family Conflict and Emotional Exhaustion

Numerous studies with diverse samples of participants have examined the relationship between work-family conflict and burnout. It has been found that work-family conflict does lead to increased levels of burnout. For example, Bacharach, Bamberger, and Conley (1991) studied American civil engineers and nurses from a large northeastern state; Burke and Mikkelsen (2006) studied Norwegian police officers; Kinnunen and Mauno (1998) studied Finnish health care workers, factory workers, and bank and supermarket employees; Greenglass and Burke (1988) studied a sample of mostly Canadian teachers and some school administrators; and Netemeyer, Boles, and McMurrian (1996) studied American real estate brokers, teachers and school administrators, and small business owners working in a southeastern state. Yet, there is a lack of research conducted in sales environments with regard to both work-family conflict and emotional exhaustion (Babin & Boles, 1996; Boles, Johnston, & Hair, Jr., 1997; Good et al., 1996; Singh et al., 1994).

Boles et al. (1997) conducted one of the few published studies where salespeople comprised the sample and a significant work-family conflict and emotional exhaustion relationship was found. They suggested that work-family conflict and emotional exhaustion may be more relevant to professions like sales because of the inherent stress through such job characteristics as dealing with customer concerns and complaints on a daily basis, losing a key customer, and/or

failing to close a sale. Also pertaining to salespeople is the fact that their lives do not have clear boundaries between work and family time, especially with demanding travel requirements. Perhaps the lack of work-family boundaries and the nature of their job stress can exacerbate any negative incident that happens at home, or any negative incident at home can exacerbate the feelings of stress at work, creating work-family conflict.

Burnout as an outcome can be reduced or prevented with the regaining and protection of resources. The popular theoretical models used when discussing stressor-burnout relationships are Siegrist's (1996) effort-reward imbalance model, Karasek and Theorell's (1990) demand-control-support model, and French, Caplan, and Harrison's (1982) person-environment fit model (Shirom, 2003). The way each model conceptualizes stressors and moderators, such as situational variables and individual personality differences, differs (Shirom, 2003). Shirom (2003) stated that Hobfoll's COR theory is the most robust theoretical perspective associated with job stressor-burnout relationships. Burnout is experienced when individuals perceive they are continually losing resources that are not being replaced (Shirom, 2003), which can happen as result of work-family conflict. COR theory predicts that individuals with inadequate resources will be more likely to experience cycles of resource loss, and when resources are not replenished, those cycles of resource loss will lead to diminished energy, which will result in progressive burnout (Shirom, 2003).

Burnout is a work outcome, and Frone et al. (1992), Judge, Bourdreau, and Bretz (1994), Netemeyer et al. (1996), and O'Driscoll et al. (1992) found that burnout

more strongly related to work-to-family conflict, though most of the studies did find

that family-to-work conflict related to burnout to some extent as well. COR theory

points to the overall loss of resources when one experiences conflict between work

and family. Both domains are affected because resource loss is not explicitly related to

either the work or family domain, especially when resources like time and energy are

concerned. A person will try to obtain additional resources where they can be found,

whether it be in the work or family domain, or try to replenish the resources that have

been depleted. For example, an individual may need to utilize more resources from the

work domain than he/she normally does in order to make up for resource loss that

occurred in the family domain. It can also be the case that having reduced resources in

the family domain leads to workers going to work already depleted of certain

resources, which increases the likelihood of feeling exhausted, setting the stage for

burnout. Therefore, as will be discussed in the next section, since certain resources

may be utilized both at work and at home (i.e., socialness), psychological detachment

from work may aid in the reduction or prevention of burnout by decreasing the

intensity of those resources needed in the home domain so that recuperation can occur.

Maslach et al. (2001) described burnout as an outcome that is more job-related

and situation-specific than emotional strain outcomes like depression. The interference

of family issues with work will create a higher degree of burnout because family

issues add to people's demands of having to focus on their work tasks while also

worrying about family issues during work time. This hypothesis is especially relevant

for collectivist cultures, like China, where the family is the fundamental unit of society

(Aryee, Fields, & Luk, 1999; Hofstede, 1980). The burnout literature revels that there is a lack of research concerning the consequence of burnout in the Chinese culture, but it may be of great importance. In China, the family takes precedence over individual members (Aryee, Luk, Leung, & Lo, 1999), and the most important function of family members is to maintain and preserve the household (Aryee, Fields, et al., 1999). Such values are derived from the philosophical traditions of Confucianism (Aryee, Luk, et al., 1999). Yet, China is also a modern society that is comparable to other industrialized countries like the United States, and so there is tension between traditional and modern values (Aryee, Luk, et al., 1999). As a way to reduce that tension, Lau (1981) coined the term "utilitarianistic familism," which describes the tendency to place family interests above individual interests. Work is a means to gain economic resources to maintain the family, and so there is a strong commitment to the work role in the interest of the family (Aryee, Fields, et al., 1999). Therefore, there may be an even greater drive to work hard in China, which may lead to greater levels of burnout when compared to individualist countries like the United States.

Hypothesis 1a: Family-to-work conflict and the emotional exhaustion component of burnout will exhibit a positive, direct relationship.

Yet, research has shown that the potential antecedents of burnout are less likely to be individual attributes and are more likely to be situational conditions, especially job demands and a lack of job resources (Maslach et al., 2001). For example, numerous studies have shown that such job demands as time pressures and work overload are positively correlated with the emotional exhaustion component of

burnout (Rasku & Kinnunen, 2003). Job demands can create work-to-family conflict, which then causes burnout through a cyclical pattern; negative work-related issues can carry over into the home domain, creating work-to-family conflict because negative family issues can result from the interference of work-related issues in the home domain, and those family issues can then carry over into the work domain, causing burnout.

Hypothesis 1b: Work-to-family conflict and the emotional exhaustion component of burnout will exhibit a positive, direct relationship.

Work Engagement

Work engagement is a positive construct gaining popularity in industrial/organizational psychology. It has been described as the "positive antipode" of burnout (Schaufeli & Bakker, 2004), meaning that work engagement is in opposition to a negative construct. Work engagement corresponds to optimal functioning and human strength, whereas burnout corresponds to what has been traditionally focused on in psychology, human weakness and malfunctioning in the form of disease, disability, disorder, and damage (Seligman & Csikszentmihalyi, 2000). Positive feelings and attitudes are more than just an absence of stress, they are qualitatively different experiences from negative feelings and attitudes (Bakker, Demerouti, & Schaufeli, 2005). Therefore, examining work engagement is an important addition to studies that include burnout.

Like burnout, work engagement is work-related, but the two constructs differ in that work engagement is positive and fulfilling. It is a constant and pervasive

affective-cognitive state of mind not focused on any specific individual, event, behavior, or object (Schaufeli et al., 2002). People who are engaged are effectively and energetically connected with their work-related activities and they believe that they are able to properly handle job demands (Schaufeli, Bakker, & Salanova, 2006). Also like burnout, work engagement is composed of three components: vigor, dedication, and absorption (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). Vigor is defined by mental resilience and high levels of energy while working, which makes it the physical component of engagement. A person who experiences vigor is willing and able to put forth a great amount of effort toward his/her work and to persist in difficult situations. Dedication relates to emotions and is defined by a sense of enthusiasm, challenge, inspiration, significance, and pride. Absorption is labeled as the cognitive component of work engagement and is defined by a person being happily immersed in and completely concentrated on his work so that he/she feels engulfed by his/her job, time passes quickly, and he/she has trouble disengaging from work tasks.

Work engagement was initially believed to be positioned on the opposite end of a continuum, with burnout at the other end. Maslach and Leiter (1997) stated that engagement erodes away into burnout; "energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness" (p. 24), with energy, involvement, and efficacy equating to vigor, dedication, and absorption, respectively. In fact, Maslach and Leiter (1997) purported that work engagement should be measured by using the opposite scores of the MBI so that low scores on emotional exhaustion and depersonalization and high scores on reduced personal efficacy

indicate a person is experiencing work engagement. Yet, Schaufeli and Bakker (2004) questioned the use of the MBI as a bipolar instrument to assess both burnout and work engagement. To support such a contention, it was shown by Russell and Carroll (1999) that positive and negative affect, which were once believed to be polar opposites, are really two independent states that should be measured separately.

Schaufeli and Bakker (2004) agreed that work engagement and burnout are each other's antithesis, but they also believed that burnout and work engagement are two independent states. They insisted that, "…feeling emotionally drained from one's work 'once a week' does by no means exclude that in the same week one might feel bursting with energy" (p. 294). Indeed, Schaufeli and Bakker (2004) found that work engagement and burnout load on two separate, moderately negatively correlating dimensions, disproving the original assertion that burnout and work engagement should have high opposite factor loadings that join together onto one single dimension. They found that burnout and work engagement share between 10 and 25 percent of their variances. Consequently, burnout and work engagement are regarded as opposite constructs measured with different scales. To further support separate constructs, research has shown that work engagement and burnout have different outcomes; as Schaufeli and Bakker (2004) found, burnout leads to negative health outcomes whereas work engagement leads to low turnover intentions.

It is important to examine work engagement because it affects numerous positive individual and organizational outcomes. Hakanen (2002) found a positive association between Finnish educational staff's self-reports of both health and working

ability and work engagement (as cited in Bakker et al., 2007). Bakker and Bal (2006) found that daily levels of work engagement predicted teachers' level of classroom performance (as cited in Bakker et al., 2007). Teachers' organizational commitment was also found to be predicted by work engagement (Hakanen, Bakker, & Schaufeli, 2006). Harter, Schimidt, and Hayes (2002) found that work engagement negatively correlated with turnover and positively correlated with numerous business-related outcomes, including profitability, productivity, customer satisfaction and loyalty, and safety.

There is also an aspect of cultural importance to studying work engagement. Zhang, Gan, and Cham (2007) studied engagement in an academic setting; and even though engagement was not studied in a work setting, it was still defined by vigor, dedication, and absorption. A modified version of the Utrecht Work Engagement Scale (UWES) was used, where items referring to work or job were replaced by items referring to studies or class. Using a sample of Chinese students from a university in mainland China, they found that burnout and engagement were moderately, negatively correlated constructs, lending support that it is suitable to study burnout and work engagement in a Chinese population.

Work-family Conflict and Work Engagement

Few empirical studies have examined the antecedents of work engagement (Bakker, van Emmerik, & Euwema, 2006), with one of the only exceptions being the previously discussed Schaufeli and Bakker (2004) study. More specifically, there is a lack of research that examines the impact of negative predictors on the positive

construct of work engagement. Consequently, there is no known research that examines work-family conflict as a predictor of work engagement. Studying work-family conflict as a possible antecedent to lowered work engagement may lead to specific actions that will help increase workers' engagement, leading to positive outcomes. Therefore, to give an overview of the possible directions of the relationship between work-family conflict and work engagement, periphery research will be reviewed.

A classic problem in organizations is finding ways to motivate people to become engaged in their work (Rothbard, 2001). The problem becomes more difficult because of the multiple roles held by people in both the work and family domains in which they must engage (Edwards & Rothbard, 2000). Rothbard (2001) discussed work engagement in addition to the construct of family engagement, citing the increase in organizations' use of family-friendly workplace supports, like on-site child care and flextime, as one way to address employees' growing concern about reducing work-family conflict. The subsequent benefit of family-friendly workplace supports to the organization is the supposed increase in their employees' work engagement (Rothbard, 2001). People will have more time to dedicate to work if they are not on the phone constantly making child care arrangements during the day or if they are not leaving early from work to make sure their children return safely home from school. Family-friendly workplace supports allow people to start work earlier in the day so that they can be home when school lets out or by having options for adequate child care (Hammer, Neal, Newson, Brockwood, & Colton, 2005). The association that

Rothbard (2001) implicitly made is that family-friendly workplace supports reduce work-family conflict, which then increases work engagement. Therefore, it is proposed that higher levels of work-family conflict will decrease work engagement.

Before Schaufeli and his colleagues broached the subject of work engagement, Kahn (1990) described personal engagement, in relation to the work role, as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (p. 696). He spoke of three psychological conditions that people unconsciously examine before they decide to engage: "(1) How meaningful is it for me to bring myself into this performance? (2) How safe is it to do so? and (3) How available am I to do so?" (p. 703). The third condition, labeled as psychological availability, is associated with distractions (i.e., depletion of physical energy, depletion of emotional energy, individual insecurity, and outside lives) that drain people's physical, emotional, or psychological resources so those resources cannot be used to engage in work roles. As discussed previously, Sonnentag and colleagues contended that psychological detachment can only occur if the resources used during work are not utilized in the home domain. Yet, Kahn's research lends support to the assertion that the same or similar resources may be utilized in both the work and home domains because, again, it may be the intensity of resources that needs to be adjusted from one domain to the other so that recovery can occur and not the complete disuse of resources necessary for recovery as assumed by Sonnentag. Kahn's question of "How available am I to [engage]?" speaks to a level of intensity needed in regard to certain

resources in order to engage and not an all or nothing approach to resources where once a resource has been utilized in one domain its use has to be discontinued for a period of time in order to replenish that resource.

Kahn (1990) conducted his research with both camp counselors and architects as participants. He found that people personally engaged in situations where they had more of certain resources available and disengaged in situations where they had a lack of those resources. Since work-family conflict reduces resources (Grandey & Cropanzano, 1999), it can be hypothesized that, with family-to-work conflict using up more resources in the family domain, increased levels of family-to-work conflict will decrease work engagement because of a lack of resources available for use in the work domain.

There are other comparable constructs to work engagement besides Kahn's personal engagement. Job satisfaction is defined as the degree to which an employee is happy and satisfied with his/her job (Hackman & Oldham, 1975). Organizational commitment is defined as employees' involvement in, identification with, and emotional attachment to the organization (affective commitment); the perceived costs of leaving the organization (continuance commitment); and feelings of obligation to remain with the organization (normative commitment) (Allen & Meyer, 1990). Both job satisfaction and organizational commitment have been shown to be positively correlated with both work-to-family and family-to-work conflict (Netemeyer et al., 1996; Good, Sisler, & Gentry, 1988). Also, concerning the construct of job involvement, defined as the degree to which a person's job is central to his/her self-

concept or sense of identity (Kanungo, 1982), people who are very involved in their work usually have higher levels of both work-to-family and family-to-work conflict (Kossek & Ozeki, 1999). Clearly, there is evidence in support of family-to-work conflict leading to lower levels of job satisfaction, organizational commitment, and job involvement, and so it is hypothesized that work engagement will be negatively affected by family-to-work conflict.

Hypothesis 2a: Family-to-work conflict and work engagement will exhibit a negative, direct relationship.

Direct evidence for work engagement, as it is perceived in the present study, concerns the argument for the work-to-family conflict and work engagement relationship. Schaufeli and his colleagues, similar to Kahn (1990), used physical, emotional, and cognitive components (i.e., vigor, dedication, and absorption, respectively) to define work engagement. Yet, an additional component is that their research differentiated between job demands and job resources as the antecedents of burnout and work engagement. Job demands are social, physical, or organizational conditions that require constant mental or physical effort and, as a result, employees incur psychological or physiological costs (e.g., exhaustion) (Demerouti et al., 2001). On the other hand, job resources are social, physical, or organizational conditions that employees can use to: "(a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development" (Demerouti et al., 2001, p. 501). Schaufeli and Bakker (2004) found that job resources (i.e., coworker support, performance feedback,

and supervisory coaching), to the exclusion of job demands, were the only predictors of work engagement. Yet, in two groups of teachers in Finland, Hakanen et al. (2006) found that a lack of job resources more greatly predict burnout, with correlations ranging from -.12 to -.36 among five resources (i.e., job control, supervisory support, information, social climate, and innovative climate), than having those five job resources predict work engagement, with those correlations ranging from .18 to .28.

A question that arises is: If possessing job resources can increase work engagement, can a lack of job resources decrease work engagement? As just mentioned, a lack of job resources can increase burnout more so than the possession of resources can increase work engagement (Hakanen et al., 2006). Since work engagement, as defined by Schaufeli and colleagues, is on a separate continuum from burnout, a decrease in burnout of a certain magnitude does not necessarily mean that there will be an increase in work engagement of an equal magnitude. Therefore, researchers need to examine whether a lack of resources can simultaneously decrease work engagement. Hobfoll (1988, 1998) stated that resource loss is more salient than resource gain because individuals attempt to protect the resources they have more than they attempt to gain resources. Work-to-family conflict can occur when increased job demands in the work environment deplete employees of their personal resources because that depletion then interferes with the functioning of those employees in the family domain and subsequently decreases work engagement. It may also be the case that lost job resources cause stress in the work environment that then carries over into the family domain, which again, subsequently decreases work engagement. Perhaps

employees' awareness that they lack job resources, as a result of work-to-family conflict, produces a stronger effect so that work engagement is affected more in the negative direction when there is a lack of resources rather than work engagement being positively affected by possessing job resources. Since job resources are lost as a result of work-to-family conflict (Grandey & Cropanzano, 1999), it can be hypothesized that work-to-family conflict decreases employees' work engagement.

Such a hypothesis is also supported by the previous reasoning that work-to-family conflict has been found to negatively affect similar constructs like organizational commitment (Netemeyer et al., 1996), job involvement (Kossek & Ozeki, 1999), and job satisfaction (Carr, Boyar, & Gregory, 2008). Also, the previous argument that work-family conflict leads to burnout also supports the hypothesis that work-to-family conflict, and family-to-work conflict, leads to work engagement. Past research has found that both work-to-family and family-to-work conflict relate to work outcomes (Kossek & Ozeki, 1998; Parasuraman, Purohit, Godshalk, & Beutell, 1996), with work engagement, like burnout, being a work outcome. Adding even further support for the argument that work-to-family conflict and family-to-work conflict affect work engagement, and particular to the participants in this study, there is a strong work commitment in the Chinese culture for the sake of the family because work provides families with economic resources (Aryee, Fields, et al., 1999). Work distress that negatively affects the family domain may subsequently influence work engagement in a negative direction if employees have unfavorable feelings toward the family as a result of work-related issues.

Hypothesis 2b: Work-to-family conflict and work engagement will exhibit a negative, direct relationship.

Psychological Detachment from Work

Recovery in the biological sense is a process where the body's individual functional systems return to their pre-stressor levels once a stressful event ceases to cause strain on the individual (Meijman & Mulder, 1998). Certain underlying psychological processes, such as psychological detachment and relaxation, also occur that help to enable recovery (Sonnentag & Fritz, 2007). Job stressors can hinder recovery; stressful job situations have been shown to be negatively related to psychological detachment from work (Cropley & Millward Purvis, 2003; Grebner, Semmer, & Elfering, 2005; Sonnentag & Fritz, 2007). A lack of recovery caused by job stressors can increase fatigue (Zohar et al., 2003) and job stress elevates both heart rate and systolic blood pressure during work so that it continues to be elevated when people return home (Vrijkotte, Van Doornen, & De Geus, 2000). When recovery does not adequately occur, the stress of constant activation without rest can lead to negative outcomes.

Recently, Sonnentag and Fritz (2007) used confirmatory factor analysis and found that work recovery is comprised of four experiences; psychological detachment from work, relaxation, control during leisure time, and mastery experiences. In a study that they conducted in order to test the construct validity of their recovery measures, Sonnentag and Fritz (2007) found that the four experiences do operate differently for separate outcomes. For example, job stressors, specifically time pressures, quantitative

workload, role ambiguity, and situational constraints, were measured and time pressures were negatively correlated with psychological detachment while relaxation was negatively correlated with quantitative workload. Role ambiguity and situational constraints were negatively related to both control over leisure time and psychological detachment. Mastery experiences were not found to be related to any of the job stressors measured. From their research, Sonnentag and Fritz (2007) found that psychological detachment is the most crucial aspect of the work recovery process. Therefore, the current study is focusing on psychological detachment from work as one aspect of the work recovery process.

Psychological detachment from work has also been referred to as unwinding, cognitively switching-off (Cropley & Millward Purvis, 2003), respite from work (Etzion et al., 1998; Sonnentag & Bayer, 2005), need for recuperation (Aronsson et al., 2003), and restoration (Hartig, Evans, Jamner, Davis, & Gärling, 2003). The "detachment" term was first used by Etzion et al. (1998) to refer to the psychological aspect of being removed from the work environment, instead of an individual merely being physically removed from the work environment, in order to regain depleted resources. Previous research has shown that resources are restored through recovery processes that take place during vacations (Fritz & Sonnentag, 2006; Westman & Eden, 1997) and other off-job experiences, such as physically-oriented military service (Etzion et al, 1998), because people are not utilizing the same resources they used during work. Therefore, the basis of detachment is to be disengaged from work-related *activities* during off-job time; for instance, one is not to be involved with job-related

phone calls after work hours. Sonnentag and Bayer (2005) went further to state that one must also be *mentally* disengaged from work, so that not only are they not involved with any actual work-related *tasks*, but they are also not engaged in work-related *thoughts*, so that they achieve full psychological detachment from work.

The distinction between physical detachment and psychological detachment from work is of great importance. Being out of the physical work environment does not necessarily deter people from "ruminating" about any topic related to work (Pravettoni, Cropley, Leotta, & Bagnara, 2008). The topic of psychological detachment from work should be given substantial attention, especially when one considers the number of people who bring work home with them to complete for the next day, which occurs frequently in such professions as teaching (Aronsson et al., 2003; Cropley & Millward Purvis, 2003). Therefore, it is necessary to establish that physical detachment from the work environment has occurred first so that then recovery as a result of psychological detachment can occur.

An issue with psychological detachment that has been alluded to thus far regards the role of resources; is there a restoration process occurring during off-job time where depleted resources are replenished or is there an acquisition of new or additional resources during off-job time? Hobfoll discussed resources as being both protected and acquired, which refers to both old and new resources, respectively. After reviewing Sonnentag and colleagues' stance on the way resources are dealt with in the work and home domains, another question is: Do people really only use specific resources at work that can be left untouched at home so that those resources can be

recovered? Or is it an issue concerning the intensity of a resource, where certain resources are used more intensely during the workday and then the intensity of that resource can be reduced enough, but not completely turned off, during off-job time to allow for recuperation? Sonnentag (2001) discussed resources as being completely expended at work and that different activities at home that are not engaged in at work will restore them for the next time they are to be used. Yet, as an example, at work most people need social resources to be able to interact with supervisors and coworkers, and at home people are social when they interact with their family and friends. It is not reasonable to assume that a resource, such as social ability, applies to only one aspect of life. Therefore, it may be the intensity of a resource or perhaps the use of the same features of the same resource at work and at home that leads to the need for recovery. Resources do play a major role in psychological detachment, but future research needs to tease apart the issue of restoration versus acquisition of resources to truly understand the construct of psychological detachment.

The manner in which people detach from work is varied, and different leisure activities after work are chosen depending on such things as personality, time constraints, family issues, and financial means (Sonnentag, 2001). Numerous studies have examined different activities, such as social, physical, and low-effort activities, where people are physically removed from the work environment, to determine if level of work recovery differs according to which activity is engaged in by individuals (Rook & Zijlstra, 2006; Sonnentag, 2001; Stanton-Rich & Iso-Ahola, 1998). Sonnentag (2001) studied the effects of after-work activities on situational well-being;

leisure activities were mainly studied, in addition to task-related activities performed

after work (i.e., work-related and household activities). Leisure activities are

differentiated from task-related activities in that leisure activities are seen as less

obligatory and they are often done by choice while task-related activities are a

necessary part of life, such as paying bills or doing laundry. The three categories used

by Sonnentag (2001) to classify leisure activities are low-effort activities, which are

passive activities like watching television or reading a magazine, social activities, such

as going out with friends, and physical activities, such as taking a walk or riding a

bike.

Work recovery through low-effort activities will occur for people in any

occupation because such activities do not place demands on either the cognitive or

physical systems. Similarly, the resources used during normal work tasks for both

cognitively- and physically-oriented occupations are not used during social activities,

so those resources can therefore be restored (Sonnentag, 2001). Physical activity of

any sort has been shown to be beneficial to both physical health and psychological

well-being (Sonnentag, 2001). Cognitive distraction can occur during physical activity

and also physiological processes that help the body recover from stress occur

(Sonnentag, 2001).

Yet, when discussing work recovery through social activities, the possible

exclusion of occupations where emotional demands are present, such as sales, needs to

be mentioned because those people are using their social skills all day at work. To

support work recovery for people in socially-oriented occupations and to disagree with

Sonnentag, the intensity of social encounters or the specific aspects of social encounters, and not the discontinuance of social resources, may be different during work versus at home for those people so that they are still able to recover from their jobs while at the same time interacting with their family and friends. Again, it is not plausible to assume that people recover from work by discontinuing the use of certain resources. Emotional regulation, however, is not needed during off-job social activities since those activities are voluntary and with familiar and well-liked people. So the concern of social activities not pertaining to people in all occupations may not be an issue. Also, social support is often obtained through social activities, which can further increase the recovery process and improve well-being.

Few studies, however, have examined the specific mechanisms that operate during low-effort, social, and physical activities that could perhaps distract people from work-related issues (Aronsson et al., 2003). Psychological detachment is a specific part of the work recovery process and can be further defined as not only focusing on time spent away from work, but by the level detachment. It is of great importance to differentiate between levels of psychological detachment because lower levels of detachment can lead to a greater accumulation of stress, which is, as mentioned before, extremely detrimental to one's health (Aronsson et al., 2003). Aronsson et al. (2003) performed a cluster analysis using data from Swedish high school teachers in order to determine each individual's level of psychological detachment from work, as measured through unwinding and recuperation during off-job time. As a result of the analysis, three clusters were identified: alert, in-between,

and nonrecuperated. As with any cluster analysis, an important part of the process is labeling the clusters that are identified, and Aronsson et al. (2003) created the labels for their clusters using information they obtained from the teachers' sleep patterns. While sleep is vital to overall health and human functioning, there may be more appropriate labels to use when discussing psychological detachment that do not narrowly focus on one aspect of the construct.

Psychological Detachment from Work as a Moderator between Work-family Conflict and Emotional Exhaustion

Barnett et al. (1999) described burnout as a psychological construct that is manifested when workers attempt to psychologically distance themselves from work. Obviously there is a concern that burnout is a similar construct to psychological detachment from work. Burnout leads to people putting less effort into their work because they are emotionally and physically exhausted, because they are indifferent toward their work, or because they do not feel like anything they do will make a difference. They are therefore, in a sense, detaching themselves from work while still being in the work environment where they should be fulfilling their duties and responsibilities. Yet, burnout and psychological detachment from work do differ. Burnout is an unwanted negative outcome that occurs in the work environment, interfering with job performance and other work-related outcomes, as well as nonwork-related outcomes, such as negative health consequences. Psychological detachment from work is a positive construct that occurs outside of the work

environment, aiding in recovery from work stress so that people are able to perform better upon returning to work.

With regards to emotional exhaustion, a large amount of research has found that the experience of general burnout is more affected by negative organizational situations rather than personality traits (Shirom, 2003). Organizational situations and personality traits may interact, however, in that some employees may be more prone to experiencing burnout than others (Shirom, 2003). Certain work conditions, such as providing opportunities for employees to experience challenge and control and to receive feedback and support from coworkers and supervisors, would most likely lower levels of burnout (Shirom, 2003). This study posits that conditions outside of work, specifically when people recover from work by psychologically detaching themselves during off-job time, can also lower levels of the emotional exhaustion component of burnout resulting from work-family conflict. By experiencing work recovery through psychological detachment, individuals will be prepared to return to work the next day because the pressure of the stressor, work-family conflict, will be reduced. Work recovery will be experienced as a result of psychological detachment from work regardless of the leisure activity people choose to engage in, excluding work-related, household, or child care tasks (Sonnentag, 2001), because the intensity of certain resources is reduced in a different environment. Yet, the level of psychological detachment may differ among individuals. Once at least a moderate level of psychological detachment is experienced, the strains of subsequent workdays will not continually accumulate as a result of constant or additional work stressors,

thus leading to a reduced level of emotional exhaustion. It is actually the contention that psychological detachment from work will provide a defense so that negative work stressors do not have as great an impact as they would if a person is already depleted of certain resources because of unresolved strain.

Burnout is an outcome of interest in relation to work recovery because being constantly exposed to stressors without relief, which is a lack of recovery, has empirically been found to lead to burnout. Westman and Eden (1997) found that clerical employees had decreased levels of burnout after returning from two weeks of vacation. In contrast to the predominantly female-oriented field of clerical work, Etzion et al. (1998) found that male engineers and technicians showed a similar result of decreased levels of burnout after being away from their jobs in order to participant in mandatory military service. Furthermore, lower levels of burnout were found for those men who experienced higher levels of psychological detachment from their current jobs (Etzion et al., 1998). Exclusive of such studies, Shirom (2003) called for more research to examine moderators and mediators in stress-burnout relationships, and psychological detachment from work as a moderator has not received much attention.

Regarding the stressor of work-family conflict, Repetti (1987) found that, after a difficult workday, bank employees reported being less sensitive and responsive to family members (as cited in Repetti, 1989). Piotrkowski (1979) also found that employees who experienced a stressful workday were then less available to their families, which can be seen through behavioral changes like not initiating as many

positive exchanges and responding less to family members (as cited in Repetti, 1989). A continuation of those behaviors each evening may lead to increased work-family conflict. Those negative behaviors may also be preventing people from experiencing work recovery by inhibiting them from participating in certain activities that would lead to their recovery. For example, experiencing fewer social interactions by not initiating positive exchanges would hinder work recovery because the opportunity to psychologically detach from work is decreased.

The relationship between job stressors and burnout has been shown to be moderated by psychological detachment (Etzion et al., 1998), and so there is some evidence that psychological detachment can act as a moderator. Yet, the Etzion et al. (1998) study only examined general job stressors and it measured burnout using all three components. This study posits that psychological detachment from work will moderate the well-established relationship between the particular job stressor of work-family conflict and the emotional exhaustion component of burnout (Barnett et al., 1999), thereby contributing to the literature by adding specificity. Thus, it is hypothesized that the relationship between both work-to-family and family-to-work conflict and emotional exhaustion will be reduced as a function of psychological detachment from work.

Hypothesis 3a: Psychological detachment from work will moderate the relationship between family-to-work conflict and the emotional exhaustion component of burnout.

Hypothesis 3b: Psychological detachment from work will moderate the relationship between work-to-family conflict and the emotional exhaustion component of burnout.

Psychological Detachment as a Moderator between Work-family Conflict and Work Engagement

Engaged employees, through a series of interviews by Bakker et al. (2007), were found to work long hours. Long work hours raise the concern that employees have the reduced possibility of becoming psychologically detached from work. Yet, engaged employees do not discount their social lives; they enjoy other aspects of their lives besides work (Bakker et al, 2007). For example, engaged employees socialize with others outside of work, become involved in hobbies, and volunteer their time, thus increasing the chance they have to recoup the resources they lose during work. Engaging in a few activities outside of work still gives people an opportunity to psychologically detach from work and there is no research addressing the issue of quality versus quantity regarding the experience of psychological detachment. So, perhaps a shorter duration of quality psychological detachment from work allows engaged workers to step away from work for just enough time to recharge and then get right back into the swing of their jobs.

Psychological detachment as a mechanism to restore resources is more likely to moderate the relationship between work-family conflict and both emotional exhaustion and work engagement better than trying to reduce job and family demands. Borrowing from Cooley and Yovanoff (1996) that work environments consist of

"givens" and "alterables," Hakanen et al. (2006) stated that "givens" are related to job demands and "alterables" are related to job resources. "Givens" are relatively unchangeable, except through long-term systematic efforts, and "alterables" are usually short-term and are amendable to change. It is not to say that reducing job demands will not moderate the relationship between work-family conflict and both emotional exhaustion and work engagement, but increasing resources through psychological detachment from work during off-job time presents a stronger mechanism for doing so because increasing job resources is more plausible than decreasing job demands.

Hypothesis 4a: Psychological detachment from work will moderate the relationship between family-to-work conflict and work engagement.

Hypothesis 4b: Psychological detachment from work will moderate the relationship between work-to-family conflict and work engagement.

Using Aronsson et al. (2003)'s previous findings of unwinding and recuperation during off-job time clustering into three groups, it is proposed that psychological detachment from work can occur at three different levels, differing among individuals. It will be examined if such a clustering occurs in a sample of Chinese salespeople because the Aronsson et al. (2003) study involved Swedish high school teachers. Also, even though unwinding and recuperation are analogous constructs to psychological detachment, it is important to determine if three clusters are found using Sonnentag and Fritz's (2007) measure. Therefore, a research question is proposed concerning the levels of psychological detachment.

Research Question: Can individuals differ in the level of psychological detachment they experience?

CHAPTER 4: METHOD

Procedure

Design. Data were collected in China from a group of salespeople working in Beijing. The salespeople sold printing services offered by their company. The present study is part of a larger study conducted by Dr. Mo Wang of Portland State University. Three-hundred employees were asked to participate in the study, and 295 employees completed both Wave I and Wave II surveys while at work, giving us a 98% response rate.

The Wave I survey consisted of 148 items, including the predictor scales, work-to-family and family-to-work conflict, and the moderator scale, psychological detachment from work. It took between 20 to 25 minutes to complete. The outcome scales, emotional exhaustion and work engagement, were included in the Wave II survey, which consisted of 144 items. This survey also took between 20 to 25 minutes to complete. The Wave II survey was given three months after the Wave I survey. Simultaneously collecting data on predictors and outcomes can spuriously increase their relationships (Sanchez & Viswesvaran, 1996), and therefore this study collected the predictors and moderator at Wave I and the outcome was gathered three months later during the Wave II data collection.

Translation. All but one scale used in this study needed to be translated from English into Chinese. The Utrecht Work Engagement Scale (UWES-17) was provided in Chinese by Schaufeli et al. (2002). The remaining scales were translated into Chinese through the use of two bilingual experts in organizational psychology who

fluently speak both English and Chinese. Two bilingual translators first translated an original scale from English to Chinese and those two translated scales were then compared to ensure that each item 1) displayed cross-cultural validity and contextual equivalence to the original item and 2) was compatible with the general and accepted way of communicating in the Chinese language. Changes were made to the Chinese translations of all scales as necessary, and once agreement was reached, a third bilingual expert in organizational psychology checked the validity of all translated scales.

Participants

Tables 1 and 2 contain all demographic information; means, standard deviations, and ranges of all continuous variables are given and frequencies of all categorical variables are given. The participants included 152 males (52%) and 143 females (48%). Regarding family roles, 204 (69%) employees were married or living as married, 6 (2%) employees were either divorced or separated, and 85 (29%) employees were never married. One-hundred fifty-six (53%) employees had at least one child and 139 (47%) employees had no children. Of those employees with children, a majority (97%) had only one child, and no one had more than two children. One-hundred twenty-one (40%) of the parents were caring for children under the age of 18. One-hundred twenty-eight (44%) employees were providing elderly care, with 28 (22%) caring for one parent, 75 (59%) caring for two parents, 9 (7%) caring for three parents, and 16 (12%) caring for four parents.

The participants ranged in age from 19 to 54 years, with an average age of 33 years ($SD = 7.51$). The participants were well-educated: 238 (81%) had at least some college experience and of those employees, 109 (34%) had least a bachelor's degree. On average, participants had 9.64 years ($SD = 7.25$) of experience in their organization and 7.44 years ($SD = 6.67$) of experience in their jobs. An average of 43 hours ($SD = 6.76$) were worked per week.

Measures

Table 3 presents the measures included in both the Wave I and Wave II surveys.

Work-family conflict. Items from Netemeyer et al.'s (1996) work-to-family/family-to-work conflict (WFC/FWC) scales were used to measure work-family conflict. Items were answered on a seven-point Likert scale, ranging from one, "strongly disagree," to seven, "strongly agree." A total of 10 items were used; five items measured work-to-family conflict and five items measured family-to-work conflict. An example item for work-to-family conflict is, "The amount of time my job takes up makes it difficult to fulfill my family responsibilities." An example item for family-to-work conflict is, "The demands of my family or spouse/partner interfere with work-related activities." The coefficient alpha reliability provided by the current study for work-to-family conflict was 0.90 and for family-to-work conflict it was 0.89.

Psychological detachment from work. Four items from the Recovery Experiences Questionnaire, developed by Sonnentag and Fritz (2007), were used to assess psychological detachment from work during off-job time. A five-point Likert

scale was used to rate each item, with one representing "strongly disagree" and five representing "strongly agree." A sample item is, "I get a break from the demands of work." The coefficient alpha reliability provided by the current study was 0.89.

Emotional exhaustion. A six-item scale from Wharton (1993) was used to assess the emotional exhaustion component of burnout. The respondents rated each item on a Likert scale ranging from zero to six to indicate "how often [they] have felt this way while [they] were at work." A rating of zero equates to a respondent who had "never felt this way at work" and a rating of six equates to a respondent who responded that they "feel this way everyday." An example item is, "I feel emotionally drained from my work." Another example of an item from the scale is, "I feel used up at the end of the workday." Cronbach's alpha from the present study for the scale was .87.

Work engagement. The 17-item Utrecht Work Engagement Scale (UWES-17) was used to assess the overall construct of work engagement. Research has shown the UWES-17 to be invariant across countries, although the samples used in the different countries consisted of college students (Schaufeli et al, 2002). All items were scored using a seven-point frequency rating scale, with zero representing "never" and six representing "always; every day." Sample items include, "Time flies when I am working" and "I am proud of the work that I do." The coefficient alpha reliability for the overall scale from the present study was 0.89.

Control variables. Seven control variables were used that might affect participants' work and family experiences. Age, gender, marital status, parental status,

elder care status, job tenure, and hours worked per week were all entered in the first step of each hierarchical multiple regression analysis (Hammer et al., 2005; Major et al., 2002).

Analytic Strategy

Initial steps were taken to analyze the data for the present study and are referenced from Howell (2007). First, boxplots and scatterplots created in SPSS 15.0 were used to determine the presence of outliers, which may be errors that could improperly bias the data, and to examine the assumptions of normality and homogeneity of variance in arrays for regression models, respectively. Second, scale reliabilities were run in SPSS 15.0 to ensure the adequate reliability of all measures used. Third, a correlation matrix was created in SPSS 15.0 to determine collinearity issues, if any.

Two-step hierarchical multiple regression analyses were used to determine both work-to-family and family-to-work conflict predicting emotional exhaustion and work engagement, with psychological detachment as a moderator. In Step 1 of each regression analysis, the control variables (i.e., age, gender, marital status, parental status, elder care status, job tenure, and hours worked per week) were entered in SPSS 15.0 in the independent variable block. In Step 2, work-to-family and family-to-work conflict were entered as the independent variables, with the interaction variables (i.e., psychological detachment X work-to-family conflict and psychological detachment X family-to-work conflict) also being entered in Step 2. The dependent variables were analyzed so that the above procedure was done for both emotional exhaustion and

work engagement separately. That determined the main effects of work-to-family and family-to-work conflict on both emotional exhaustion and work engagement while also determining the interaction effects of psychological detachment X work-to-family conflict and psychological detachment X family-to-work conflict.

A latent profile analysis was then performed using Mplus to determine the different levels of psychological detachment from work. The latent class was psychological detachment with three levels, alert, in-between, and unrecuperated, which were first identified by Aronsson et al. (2003) using cluster analysis. The advantage of latent profile analysis over cluster analysis is that one can obtain the probability of being in each class in latent profile analysis because it is model-based. The items used as the indicators of the different levels of the latent class are the four items used from the Recovery Experiences Questionnaire (Sonnentag & Fritz, 2007).

CHAPTER 5: RESULTS

Means, standard deviations, and correlations between the variables are

provided in Table 4. Correlations between the predictor and outcome variables are

examined more in depth. As expected, work-to-family conflict significantly correlated

with family-to-work conflict ($r = .40, p < .01$) because together they comprise the

general construct of work-family conflict. Also as expected, emotional exhaustion was

significantly negatively correlated with work engagement ($r = -.19, p < .01$); as an

individual experiences work engagement, he/she experiences less emotional

exhaustion as a result of work. It was also discovered that family-to-work conflict was

significantly correlated with psychological detachment ($r = .31, p < .01$). Such a

correlation can lead to future research to further examine the reasoning behind family

issues that interfere with work issues being positively associated with psychological

detachment.

Other interesting findings include age positively correlating with family-to-

work conflict ($r = .12, p < .05$) and negatively correlating with work engagement ($r =$

$-.12, p < .05$), which is interpreted as older individuals experiencing more family-to-

work conflict and reduced levels of work engagement. Gender positively correlated to

both work-to-family conflict ($r = .12, p < .05$) and family-to-work conflict ($r = .15, p$

$< .05$) so that males in this sample experienced greater levels of both types of conflict.

Marital status was positively correlated with psychological detachment ($r = .13, p <$

$.05$), with married people or individuals living with significant others as if they were

married were able to psychologically detach from work more/less than single,

divorced, or widowed individuals. Job tenure was found to be negatively correlated with work engagement ($r = -.19, p < .001$). Individuals who had been working for the sales organization longer had reduced levels of work engagement. The number of hours worked per week was positively correlated with work-to-family conflict ($r = .18$, $p < .001$) and work engagement ($r = .14, p < .05$). Individuals who worked a greater number of hours per week experienced higher levels of work-to-family conflict and reported higher levels of work engagement.

The means, standard deviations, and ranges of scale variables are given in Table 5. Two-step hierarchical multiple regression analyses were conducted to determine the prediction of emotional exhaustion from both family-to-work conflict and work-to-family conflict (i.e., Hypotheses 1a and 1b, respectively) and the prediction of work engagement from both work-to-family conflict and family-to-work conflict (i.e., Hypotheses 1b and 2b, respectively). Control variables (i.e., age, gender, marital status, parental status, elder care status, job tenure, and hours worked per week) were entered in Step 1 of each regression analysis. The respective predictor variable for each analysis was then entered in Step 2.

The results for Hypotheses 1a and 1b are given in Table 6 and 7, respectively. Hypothesis 1a regarding the regression equation with family-to-work conflict predicting emotional exhaustion was not significant ($\beta = -.04, p > .05$). The regression equation with work-to-family conflict predicting emotional exhaustion (i.e., Hypotheses 1b) was also not significant ($\beta = .08, p > .05$).

The results for Hypotheses 2a and 2b are given in Table 8 and 9, respectively. The relationship of family-to-work conflict predicting work engagement (i.e., Hypotheses 2a) was not significant (β= .05, p > .05). Hypothesis 2b regarding the relationship of work-to-family conflict predicting work engagement was also not significant (β= .05, p > .05).

Hypotheses 3a, 3b, 4a, and 4b regarding the effect of psychological detachment as a moderator of the aforementioned relationships were analyzed to determine if differing levels of psychological detachment have an effect on work-family conflict's influence on either emotional exhaustion or work engagement. The results are given in Tables 10 to 13.

Hypothesis 3a, which hypothesized the effect of psychological detachment as a moderator on the relationship between family-to-work conflict and work engagement, was not significant (β= -.03, p > .05). Yet, in this regression analysis, psychological detachment was found to predict work engagement (β= -.12, p = .05). Hypothesis 3b, which hypothesized the effect of psychological detachment as a moderator on the relationship between work-to-family conflict and work engagement, was also not significant (β= -.02, p > .05).

Hypothesis 4a, which examined psychological detachment as a moderator of the relationship between family-to-work conflict and emotional exhaustion, was not significant (β= .01, p > .05). Hypothesis 4b, regarding psychological detachment as a moderator of the relationship between work-to-family conflict and emotional exhaustion, was also not significant (β= -.03, p > .05).

The research question pertaining to the different levels of psychological detachment was analyzed using latent profile analysis in Mplus. The results are presented in Tables 15 and 16. The entropy statistic (E) indicates higher classification utility, ranging from zero to one, with one being the highest utility (Pastor, Barron, Miller, & Davis, 2007). There is no cutoff for E as of yet, but this study did show a reasonable E value ($E = .81$). It was found that the participants in this study fit into three levels of psychological detachment; 37% in the first class experienced low levels of psychological detachment, 38% in the second class experienced somewhat lower than moderate levels of psychological detachment, and 25% in the third class experienced somewhat high levels of psychological detachment.

CHAPTER 6: DISCUSSION

Work is a large part of people's lives, with many hours spent at work each week. Most people work out of necessity rather than out of desire, and so many people assume that the work environment is inherently stressful. Consequently, there can be much stress experienced at work that can then be brought into the family domain, creating stressful situations at home. That stress experienced at home, if not relieved, can then be carried back into the work environment, creating work-family conflict. Work-family conflict is a construct that is extremely valuable to study in its own right, and this study hypothesized emotional exhaustion and lowered work engagement as outcomes of high work-family conflict. Those hypothesized relationships have not been found in this particular study and reasoning for each non-significant finding will subsequently be discussed. It should be noted that all analyses were run using a subset of participants experiencing some type of family demand and similar results were found.

The results of this study do not find significant relationships between either work-to-family conflict or family-to-work conflict and the outcome of burnout. There are numerous reasons for this finding given the particular sample used in this study. The most obvious reason is statistically-related; work-to-family conflict and family-to-work conflict were rated using a seven-point Likert scale, so that a score of three and one half represents moderate levels of each construct. Emotional exhaustion was rated on a six-point Likert scale so that a score of three represented a moderate level of emotional exhaustion. This sample of Chinese salespeople reported slightly higher

than moderate levels of work-to-family conflict ($M = 3.73$, $SD = 1.33$), somewhat

lower than moderate levels of family-to-work conflict ($M = 2.51$, $SD = 1.21$), and low

levels of emotional exhaustion ($M = 1.37$, $SD = 1.12$). The distributions for both

family-to-work conflict and emotional exhaustion are highly skewed to the left, which

corresponds to the lower end of the scales. Work-to-family conflict has a somewhat

more normal distribution, with the mean level for the sample almost being at the

middle of the scale. It is difficult to determine significant relationships when a number

of the constructs do not apply to the participants in the study, especially the outcome

variable.

There are also conceptual reasons for the lack of significant findings regarding

emotional exhaustion. Maslach and Jackson (1985) examined the influence of family

responsibilities on burnout, defining family responsibilities using marital status and

parental status. There was no evidence of a significant relationship between the two

constructs in their study. Aryee (1993) cited the study and explained the finding by

stating that the datasets used were not based on dual-earner couples. His reasoning

was that "participants in dual-earner marriages are susceptible to a great deal of

pressure and stress" (Aryee, 1993, p. 1442). The present study, even though it

included participants with some type of family demands, did not examine couples

specifically and it did not ask those participants with partners if both individuals held

jobs in order to earn money for their families.

Aryee (1993), using a sample from Singapore, found positive results in that

work-family conflict led to burnout for both the men and women in dual-earner

couples. Unique to samples from collectivist countries, it may be that work-family conflict influences burnout more so in people who have greater family demands. The added stress of having to deal with a spouse's negative work-related issues that he/she may bring home is a crossover effect (Hammer et al., 2005) that can influence the level of an individual's own emotional exhaustion. It may also be that, as Wilcox-Matthew and Minor (1989) mentioned, there is a great deal of stress felt when people experience intrapersonal dilemmas. Having to deal with multiple roles and trying to decide which role to emphasize at what time may be a vicious cycle, especially for individuals who are part of dual-earner couples, and that may result in stress when a balance cannot be reached (Wilcox-Matthew & Minor, 1989). Therefore, one way to improve the present study is to examine dual-earner couples and the effects of work-family conflict on their levels of emotional exhaustion.

The specific sample of salespeople may also affect the lack of significant findings regarding emotional exhaustion. It was hypothesized that salespeople, because of the type of work they do, would experience higher levels of work-family conflict which would then lead to high levels of emotional exhaustion. The nature of a sales position is that it is a boundary spanning position where employees interact with many different people inside and outside of their own company (Goolsby, 1992). Traveling is also a large component of sales positions (Boles et al., 1997), requiring professionals to be skilled in juggling numerous demands. Perhaps the skill of juggling numerous demands transfers over to the family domain so that the impact of work-family conflict is reduced, leading to lower levels of burnout. Such reasoning

leads to another way to improve the current study, which is to examine individuals

working in different types of occupations other than sales.

This study also does not find significant results for the work-to-family conflict-

work engagement relationship or the family-to-work conflict-work engagement

relationship. Taken from a cultural perspective, the findings are actually fitting given

the sample. China is a country with a collectivist orientation (Hofstede, 1980), and as

stated before, family is highly valued in that culture and things that are done outside

the home domain still carry importance for the family (Aryee, Fields, et al., 1999).

Since the commitment to work is for the good of the family, there is a blurring of the

work and family roles (Aryee, Fields, et al., 1999). Having a job, even though it is

outside the home domain, is done with the well-being of the family in mind.

Therefore, Chinese people may focus so much on the family domain that, whether

work-family conflict is high or low, work engagement is not affected. It may also be

the case that since the Chinese culture is one where a good work ethic is important,

work engagement remains constant no matter what the situation in or out of the work

domain. In fact, the mean value of work engagement in this Chinese sample is exactly

at the midpoint of the scale ($M = 3.50$, $SD = .77$), even though they reported slightly

higher than moderate levels of work-to-family conflict. Another way to improve this

study would be to examine individuals from other countries to explore the effects of

work-family conflict on work engagement.

The non-significant work-family conflict relationships may also be explained

as a methodological issue. Work-family conflict is a construct that has largely been

examined cross-sectionally. Utilizing such a study design when examining work-family conflict may trigger an individual to think of only negative aspects of their work and family lives, leading to spurious results. Another issue with studying work-family conflict cross-sectionally is that work-family conflict may be unstable over time, meaning that an individual does not experience the same level of work-family conflict at all times. A cross-sectional research design will not capture fluctuation in work-family conflict. Therefore, longitudinal designs are important to determine if work-family conflict, as a variable construct, influences such outcomes as emotional exhaustion and work engagement. This longitudinal study may suggest the possibility of a temporal mechanism for work-family conflict given that the well-established work-family conflict-emotional exhaustion relationship has not been observed.

Given that there are no main effects found in this study, the proposed moderations with psychological detachment from work are also found to be non-significant. This does not preclude the importance of psychological detachment from work. There may be issues concerning the content validity of the items measuring psychological detachment from work that are compromising the findings of this study. The four items are: 1) I forget about work, 2) I don't think about work at all, 3) I distance myself from work, and 4) I get a break from the demands of work. These four items may be measuring job dis-involvement instead of detachment for purposes of recovery. If this is the case, the meaning of the psychological detachment as measured using these items is different from the definition given and appropriate inferences cannot be made when using the current measure.

As will be discussed, there are various avenues of future research that can be taken in order to improve the psychological detachment construct and to determine its effects on numerous outcomes. For example, there was a significant positive correlation between psychological detachment and family-to-work conflict. When there is a higher level of psychological detachment from work, family-to-work conflict is high (i.e., the family domain interferes with the work domain). Since psychological detachment occurs in the home domain, something may be occurring while an individual psychologically detaches at home that consequently interferes with certain aspects of work. For that reason, the main effects of psychological detachment should be further explored.

Psychological detachment is also still of great concern because the research question proposed concerning the levels of detachment is significant. Using Mplus, a latent profile analysis was found to have an entropy (E) level of .81, which is a reasonably good level showing that the participants fit into three separate groups (for additional results see Table 14). Average latent class probabilities (see Table 15), which are used to calculate E, clearly show that this profile analysis has good accuracy in assigning participants to the proper categories. The first group experienced low levels of psychological detachment and it contained 37% (109) of the participants. The second group experienced somewhat lower than moderate levels of psychological detachment and it contained 38% (113) of the participants. The third group experienced somewhat high levels of psychological detachment and it contained the

final 25% (73) of the participants. Future research can examine the different levels of psychological detachment to determine if there is an optimal level.

Implications

Practical implications. Though the hypotheses are not supported in this study, it has been found that the Chinese participants working in sales do experience more work-to-family conflict than family-to-work conflict. Organizations can assist employees in effectively managing work-to-family conflict by establishing clear and reasonable expectations regarding the time workers spend on the job, which then affects the time they spend away from the job. For example, an organization can encourage employees to work "smarter not harder" (Sujan, Weitz, & Kumar, 1994) instead of commending those employees who work 80 hours each week. Also, organizations can give salespeople realistic work schedules and perhaps more autonomy for things such as when they will call or meet customers, which can then positively influence both the work and family domains. Even traveling can be scheduled well in advance, when feasible, in order to avoid as much work-family conflict as possible. It is also an option for organizations to teach employees time management skills so that they are able to work more effectively.

Theoretical implications. The need to balance work and family matters is extremely important because, as numerous researchers have mentioned, people work too much and they are using vital resources to do so (Bond et al., 1997; Hochschild, 1997; Mishel et al., 1999). Other aspects of life besides work can be stressful and can deplete people's resource levels, yet researchers hardly ever discuss the function of

different domains in resource loss or gain. Recovery needs to be examined in general

or without just the distinction of "work" recovery if progress is to be made in

understanding the role of resources in the recovery process. As of now, recovery

researchers theorize, using Hobfoll's COR theory, that resources being lost or depleted

in the work environment can only be replenished if an individual discontinues his/her

use of that particular resource for a period of time, which is left unspecified. The same

resources are used in different domains, such as energy and self-esteem, and it is not

reasonable to expect people to stop using one resource that was used at work while in

the family domain. As discussed previously, it may be the intensity of a resource that

needs to be toned down in one domain in order for recovery to occur. Intensity still

allows for the use of a resource as recovery is occurring, which is important for the

overall functioning of a person in all domains. Therefore, future studies can examine

the issue of resource intensity in relation to such constructs as work-family conflict

and psychological detachment.

Potential Limitations

One limitation of the current study is the non-generalizable sample of Chinese

participants. Cultural differences between interdependent countries, such as China,

and independent countries, such as the United States, may lead to very different

findings. Yet, knowing and understanding the differences between different cultures is

extremely important because one cannot assume that work-family conflict affects

different people in the same way. That leads to the need for additional research in

order to make sure all people are represented. The self-report nature of the data is

another limitation that must be acknowledged. All constructs were measured using items on a survey, which can lead to common method bias. The nature of the constructs examined, however, do lend themselves to subjective evaluation by the participants themselves.

Future Research

Psychological detachment from was not significant as a moderator in this study, but the construct holds promise in future studies. The theoretical underpinnings of psychological detachment rely on Hobfoll's COR theory. There is a basis for a resources theory regarding psychological detachment based on past work by such researchers at Etzion and Sonnentag. Yet, more attention should be focused on the way resources operate during psychological detachment and during other activities like work. That information can then be used in conjunction with the psychological detachment measure created by Sonnentag and Fritz (2007). The scale has four items that have good reliability in this study at .89. Also, after running a confirmatory factor analysis, it was found that the items do fit well to the factor of psychological detachment (RMR =.03; additional goodness-of-fit indices are reported in Table 16).

Future research may also look more in-depth at the particular leisure activities people pursue after work and the differing effects, if any, specific leisure activities have on individuals' level of recovery from work demands. Sonnentag (2001) stated that there is a lack of research examining the extent to which specific leisure activities help people recover from work, and she suggested that resources utilized during work should not be used after work in order for those resources to be replenished. Such a

statement, however, seems too broad and may lead one to believe that people in cognitively demanding professions, such as computer programming, should only use physical leisure activities to recover from work and that people in physically demanding occupations, such as construction work, should not use exercise to unwind after work because they would be utilizing similar resources they used during work. Such a concern pertains to the ongoing discussion of the intensity of resources versus the all-or-nothing use of resources advocated by Sonnentag and colleagues. Again, is it realistic to believe that a person can discontinue the use of certain resources in order for those resources to be replenished? Energy is a resource that people need in the work domain and in the family domain, and so a person cannot devote all of his/her energy to one domain and then expect to be able to have a complete lack of energy while the resource is being replenished. The disuse of energy would impair functioning in other domains. Future research needs to determine which leisure activities are effective in helping people increase their recovery from work. More specifically, researchers can discern the ways people can become involved in activities that can increase their psychological detachment (Sonnentag & Bayer, 2005).

There is evidence to suggest that work recovery is a multidimensional construct (e.g., Sonnentag & Fritz, 2007), yet researchers conducting studies using the concept of work recovery may only be getting at one aspect of the recovery process. For instance, Steptoe, Cropley, and Joekes (1999) defined work recovery using only physiological measures. They found that high and low strain workers' had the same elevated blood pressure and heart rate during the workday, but the high strain workers'

blood pressure and heart rate remained elevated for some period of time during the evening hours after work while the low strain workers' physiological measures decreased to a greater extent. By just measuring physiological indicators of work recovery, the entire process may not be assessed. Also, Sluiter, van der Beek, and Frings-Dresen (1998) used urinary catecholamines and cortisol excretion, which have been shown to be excreted more when people are experiencing stress, as a way to measure the extent of work recovery. The catecholamine and cortisol levels were tracked after work, presumably when the workers were not experiencing stress at work, until they reached their baseline levels. Sluiter et al. (1998) were assuming that work stress was not affecting the workers while they were away from the work environment, but the workers may not have been psychologically detached from work during their off-job time.

Cropley and Millward Purvis (2003) used rumination, which is "unintentional preservative thoughts in the absence of obvious external cues" (p. 197), as a "proxy indicator" for insufficient work recovery because people who engaged in ruminative thinking exhibited prolonged physiological arousal and delayed recovery (Roger & Jamieson, 1988). Yet again, only physiological indicators of stress were correlated with rumination in order to indirectly determine insufficient work recovery. More needs to be done to agree on and strengthen: 1) an overarching concept of work recovery; 2) to determine the specific mechanisms, like psychological detachment, that produce work recovery; and 3) the ways to measure them so that future research will be better focused on determining ways to help people recover from work so that

the effects last. Again, particular to psychological detachment, the issue of resource loss and replenishment needs to be examined further so that the construct can be understood better in order to further research concerning work recovery.

Once the construct is clarified, other future research can then examine numerous aspects of psychological detachment from work. First of all, future research should examine the ways psychological detachment affects other types of strain besides psychological strains. It makes sense for psychological detachment to affect psychological strains since recovering psychologically will most likely lead to psychological outcomes. Yet, what is the affect of psychological recovery on behavioral and physiological strains? Second of all, it may also be the case that people try to psychologically detach from work using negative methods like consuming alcohol or drugs (Patterson, Bennett, & Wiitala, 2005). Such things as smoking and high alcohol consumption can have serious and long lasting effects on health and should be of great concern to the research community. Lastly, longitudinal studies need to be implemented in order to see the effects of leisure activities on the work recovery of subsequent workdays and the long-term effects on the burnout and work engagement of workers.

Other studies can attempt to examine psychological detachment during off-job time by examining evenings as shorter rest periods where recovery from work can take place, which differs from previous research concerning vacations as longer rest periods. Future research can also look at weekends as an intermediate rest period for work recovery to take place for those who work regular schedules. Individuals who

have irregular work schedules, such as working evening or overnight shifts, may have different modes of psychologically detaching from work and it is therefore important to include such workers in future research. Future research may also examine the effects of telecommuting on psychological detachment from work. If an individual is working from home during the day, will work recovery be affected by merely being in the same environment in which work was being conducted earlier?

It is also important to investigate the effects of different forms of support found in the work environment, such as supervisor and coworker support, on subsequent psychological detachment and recovery. It may be that a more supportive work environment helps people recover faster after work, or it may be discovered that social withdrawal after work helps people recover. For example, Repetti (1989) found that spousal support moderated the relationship between objective workload and social withdrawal during nonwork hours. Repetti (1989) hypothesized that social withdrawal, as a behavioral correlate to unwinding, would lead to higher levels of recovery after experiencing a high workload during the workday for air traffic controllers, whose job is seen as very stressful. In this study, Repetti (1989) claimed that social withdrawal was positive in that it increased recovery from work by allowing people to reduce their heightened emotional and physiological arousal caused by the stress experienced at work. When the workload for air traffic controllers was objectively measured to be high, the air traffic controllers socially withdrew more.

Regarding methodology, future research should use biological indicators, such as blood pressure and cortisol levels, to measure the impact of stressors on individuals,

as was previously done in recovery research. By tracking those indicators during the evening hours after work, researchers can determine if recovery is taking place at the most basic physiological level. Then, such biological indicators can be correlated with individuals' self-reports of psychological detachment during those evening hours. The psychological detachment construct cannot be objectively observed, so correlating the psychological detachment measure with biological indicators of recovery will enhance future research.

In order to further the work-family research field, studying different ways in which to prevent or reduce work-family conflict are needed. Psychological detachment as a moderator to relationships with work-family conflict as the predictor has only been found in a study conducted by Etzion et al. (1998). Grandey and Cropranzano (1999) outline three recommendations that have been made by work-family researchers for ways in which future research should be conducted concerning work-family conflict as a stressor: 1) work role conflict and family role conflict, as work and family domain stress, should be included in work-family models (Burke, 1988; Kopelman, Greenhaus, & Connolly, 1983: Voydanoff, 1988), 2) both work-to-family and family-to-work conflict need to be studied (Frone et al., 1992; Gutek, Searle, & Klepa, 1991; Netemeyer et al., 1996), and 3) use longitudinal prospective designs because much of the stress research that has been conducted primarily utilizes cross-sectional designs (Kahn & Byosiere, 1992; Zedeck & Mosier, 1990).

Conclusion

Greenhaus and Parasuraman (1986) remarked that an individual's perception and interpretation of his/her environment is the ultimate reason stress occurs and it is that individual's actions that are necessary to handle the stress and the resulting strain. Work is not the only source of stress in people's lives; the family domain can be a source of stress as well. Ideally, a balance needs to be found where people can optimally function in all domains of their lives without the experience of stress.

Table 1. Means, standard deviations, and range of categorical demographic variables.

Variable	N	Mean*	SD**	Range[†]
Age in Years	295	32.96	7.51	19 – 54
Education	295	14.67	1.67	10-19 years
Years of organizational experience	295	9.64	7.25	5 months – 33 years
Years of position experience (job tenure)	295	7.44	6.67	2 months – 33 years
Hours worked per week	295	40.53	8.58	23 – 72 hours

*Mean = the average response

**SD = standard deviation (measures the amount of variation away from the average)

[†]Range = the lowest to the highest responses received

Table 2. Frequency of continuous demographic variables.

Variable	Category	N	Percentage
Gender	Male	152	52%
	Female	143	48%
Marital Status	Married	198	67%
	Divorced or separated	6	2%
	Living as married	6	2%
	Never married	85	29%
Parental Status	Parent	156	53%
	Not a parent	139	47%
Number of Children Cared For	0	139	47%
	1	151	51%
	2	5	2%
Caring for Children Under 18	Yes	121	40%
	No	174	60%
Elder Care Status	Provides elder care	128	44%
	Does not provide elder care	166	57%
Number of Parents Cared For	0	167	30%
	1	28	22%
	2	75	59%
	3	9	7%
	4	16	12%

Table 3. Measures

Work-to-family Conflict (α = .90)

---

1. The demands of my work interfere with my home and family life.
2. The amount of time my job takes up makes it difficult to fulfill my family responsibilities.
3. Things I want to do at home do not get done because of the demands my job puts on me.
4. My job produces strain that makes it difficult to fulfill family duties.
5. Due to my work-related duties, I have to make changes to my plans for family activities.

Family-to-work Conflict (α = .89)

---

1. The demands of my family or spouse/partner interfere with work-related activities.
2. I have to put off doing things at work because of demands on my time at home.
3. Things I want to do at work don't get done because of the demands of my family or spouse/partner.
4. My home life interferes with my responsibilities at work, such as getting to work on time, accomplishing daily tasks, and working overtime.
5. Family-related strain interferes with my ability to perform job-related duties.

Psychological Detachment from Work (α = .89)

---

1. I forget about work.
2. I don't think about work at all.
3. I distance myself from my work
4. I get a break from the demands of work

Emotional Exhaustion (α = .87)

---

1. I feel emotionally drained from my work.
2. I feel used up at the end of the work day.
3. I dread getting up in the morning and having to face another day on the job.
4. I feel burned out from my work.
5. I feel frustrated by my job.
6. I feel I'm working too hard on my job.

Table 3. (Continued)

Work Engagement ($\alpha = .89$)

---

1. At my work, I feel bursting with energy.
2. I find the work that I do full of meaning and purpose.
3. Time flies when I'm working.
4. At my job, I feel strong and vigorous.
5. I am enthusiastic about my job.
6. When I am working, I forget everything else around me.
7. My job inspires me.
8. When I get up in the morning, I feel like going to work.
9. I feel happy when I am working intensely.
10. I am proud on the work that I do.
11. I am immersed in my work.
12. I can continue working for very long periods at a time.
13. To me, my job is challenging.
14. I get carried away when I'm working.
15. At my job, I am very resilient, mentally.
16. It is difficult to detach myself from my job.
17. At my work I always persevere, even when things do not go well.

Table 4. Means, standard deviations, and correlations.

Variable	N	M	SD	1	2	3	4
1.Age	295	32.96	7.51	—			
2.Gender	295	.52	.50	.04	—		
3. Marital Status	295	2.23	1.82	-.51**	-.02	—	
4. Parental Status	295	.47	.50	-.61**	-.02	.70**	—
5. Job Tenure	295	89.25	80.07	.70**	-.04	-.37**	-.48**
6. Hours worked per week	295	43.40	6.76	-.16**	.21**	.07	.15**
7.Work-to-family Conflict	295	3.73	1.33	.04	.12*	-.01	.00
8. Family-to-work Conflict	295	2.51	1.21	.12*	.15*	.03	-.05
9. Emotional Exhaustion	295	1.37	1.12	.06	.01	-.04	.00
10.Work Engagement	295	3.50	.77	-.12*	.00	.01	.01
11.Psychological Detachment	295	2.57	.99	-.04	.04	.13*	.05

Note. Correlations are based on pairwise deletion. N = 295. When applicable, alpha reliabilities appear in parentheses along diagonal.

* $p < .05$, ** $p < .01$.

Table 4. (Continued)

Variable	5	6	7	8	9	10	11
1.Age							
2.Gender							
3. Marital Status							
4. Parental Status							
5. Job Tenure	—						
6. Hours worked per week	-.21**	—					
7.Work-to-family Conflict	-.01	.18**	(.90)				
8. Family-to-work Conflict	.04	-.08	.40**	(.89)			
9. Emotional Exhaustion	.02	.03	.09	-.04	(.87)		
10.Work Engagement	.19**	.14*	.06	.01	-.19**	(.89)	
11.Psychological Detachment	-.08	-.10	.06	.31*	-.05	-.01	(.89)

Note. Correlations are based on pairwise deletion. N = 295. When applicable,

alpha reliabilities appear in parentheses along diagonal.

* $p < .05$, ** $p < .01$

Table 5. Means, standard deviations, and range of scale variables.

Variable	N	Mean*	SD**	Range[†]
Work-to-family Conflict	295	3.73	1.33	1 – 7
Family-to-work Conflict	295	2.51	1.21	1 – 6.20
Emotional Exhaustion	295	1.37	1.12	0 – 4.67
Work Engagement	295	3.50	.77	1.29 – 5.71
Psychological Detachment	295	2.57	.99	1 – 5

*Mean = the average response

**SD = standard deviation (measures the amount of variation away from the average)

[†]Range = the lowest to the highest responses received

Table 6. Multiple regression results for family-to-work conflict predicting emotional exhaustion.

| Predictors | N = 295 | | | | | |
| | Step 1 | | | Step 2 | | |
	B	*SE*	*B*	*B*	*SE*	β
Intercept	.60	.66		.69	.68	
Age	.02	.01	.11	.02	.01	.12
Gender	-.02	.14	-.01	-.01	.14	-.00
Marital Status	-.03	.05	-.05	-.03	.05	-.05
Parental Status	.21	.21	.10	.21	.21	.09
Elder Care Status	-.00	.14	-.00	-.01	.14	-.01
Job Tenure	.00	.00	-.02	.00	.00	-.03
Hours worked per week	.01	.01	.04	.01	.01	.03
Family-to-work Conflict				-.04	.06	-.04
Adjusted R²			-.02			-.02
F			.38			.39
ΔR²			.01			.00
ΔF			.38			.48

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$.

Table 7. Multiple regression results for work-to-family conflict predicting emotional exhaustion.

| Predictors | N = 295 | | | | | |
| | Step 1 | | | Step 2 | | |
	B	SE	β	B	SE	β
Intercept	.60	.66		.49	.67	
Age	.02	.01	.11	.02	.01	.10
Gender	-.02	.14	-.01	-.04	.14	-.02
Marital Status	-.03	.05	-.05	-.03	.05	-.06
Parental Status	.21	.21	.10	.21	.21	.09
Elder Care Status	-.00	.14	-.00	.00	.14	.00
Job Tenure	.00	.00	-.02	.00	.00	-.02
Hours worked per week	.01	.01	.04	.00	.01	.02
Work-to-family Conflict				.07	.05	.08
Adjusted R²			-.02			-.01
F			.38			.83
ΔR^2			.01			.01
ΔF			.38			1.68

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$.

Table 8. Multiple regression results for family-to-work conflict predicting work engagement.

| Predictors | N = 295 | | | | | |
| | Step 1 | | | Step 2 | | |
	B	*SE*	*B*	*B*	*SE*	β
Intercept	3.00	.44		2.94	.46	
Age	.01	.01	.05	.00	.01	.04
Gender	-.04	.09	-.02	-.05	.09	-.03
Marital Status	-.05	.04	-.12	-.06	.04	-.13
Parental Status	.11	.14	.07	.11	.14	.07
Elder Care Status	.14	.10	.09	.15	.10	.10
Job Tenure	-.00	.00	-.20	-.00	.00	-.20
Hours worked per week	.01	.01	.10	.01	.01	.11
Family-to-work Conflict				.03	.04	.05
Adjusted R^2			.06*			.07*
F			2.74			2.47
ΔR^2			.06			.00
ΔF			2.74*			.58*

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$.

Table 9. Multiple regression results for work-to-family conflict predicting work engagement.

| Predictors | N = 295 | | | | | |
| | Step 1 | | | Step 2 | | |
	B	SE	B	B	SE	β
Intercept	3.00	.45		2.95	.45	
Age	.01	.01	.05	.00	.01	.03
Gender	-.04	.09	-.02	-.04	.09	-.03
Marital Status	-.05	.04	-.12	-.05	.04	-.12
Parental Status	.11	.14	.07	.11	.14	.07
Elder Care Status	.14	.10	.09	.15	.10	.09
Job Tenure	-.00	.00	-.20	-.00	.00	-.20
Hours worked per week	.01	.01	.10	.01	.01	.09
Work-to-family Conflict				.03	.03	.05
Adjusted R^2			.04			.04
F			2.74*			2.49*
ΔR^2			.06			.00
ΔF			2.74*			.80

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$.

Table 10. Moderated multiple regression results for family-to-work conflict predicting emotional exhaustion moderated by psychological detachment.

| | N = 295 | | | | | |
| Predictors | Step 1 | | | Step 2 | | |
	B	*SE*	*ß*	*B*	*SE*	*ß*
Intercept	.60	.66		.61	.67	
Age	.02	.01	.11	.02	.01	.12
Gender	-.02	.14	-.01	-.01	.14	-.00
Marital Status	-.03	.05	-.05	-.03	.05	-.04
Parental Status	.21	.21	.10	.21	.21	.09
Elder Care Status	-.00	.14	-.00	.01	.14	-.01
Job Tenure	.00	.00	-.02	.00	.00	-.03
Hours worked per week	.01	.01	.04	.00	.01	.03
Family-to-work Conflict				-.03	.06	-.03
Psychological Detachment				-.04	.07	-.03
FTW*PD				.01	.06	.01
Adjusted R²			-.02			-.02
F			.38			.34
ΔR²			.01			.00
ΔF			.38			.26

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$. FTW = Family-to-work Conflict, PD = Psychological

Detachment.

Table 11. Moderated multiple regression results for work-to-family conflict predicting emotional exhaustion moderated by psychological detachment.

Predictors	N = 295					
	Step 1			Step 2		
	B	*SE*	*B*	*B*	*SE*	β
Intercept	.60	.66		.79	.68	
Age	.02	.01	.11	.02	.01	.12
Gender	-.02	.14	-.01	-.03	.14	-.02
Marital Status	-.03	.05	-.05	-.03	.05	-.05
Parental Status	.21	.21	.10	.21	.21	.09
Elder Care Status	-.00	.14	-.00	.01	.14	.00
Job Tenure	.00	.00	-.02	.00	.00	-.03
Hours worked per week	.01	.01	.04	.00	.01	.01
Work-to-family Conflict				.07	.05	.08
Psychological Detachment				-.06	.07	-.05
WTF*PD				-.02	.05	-.03
Adjusted R²			-.02			-.02
F			.38			.52
ΔR^2			.01			.01
ΔF			.38			.84

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$. WTF = Work-to-family Conflict, PD = Psychological

Detachment.

Table 12. Moderated multiple regression results for family-to-work conflict predicting work engagement moderated by psychological detachment.

Predictors	N = 295					
	Step 1			Step 2		
	B	*SE*	*B*	*B*	*SE*	β
Intercept	3.00	.45		3.06	.45	
Age	.01	.01	.05	.01	.01	.05
Gender	-.04	.09	-.02	-.04	.09	-.03
Marital Status	-.05	.04	-.12	-.05	.04	-.11
Parental Status	.11	.14	.07	.10	.14	.06
Elder Care Status	.14	.10	.09	.16	.10	.10
Job Tenure	-.00	.00	-.20*	-.00	.00	-.21**
Hours worked per week	.01	.01	.10	.01	.01	.09
Family-to-work Conflict				.06	.04	.09
Psychological Detachment				-.09	.05	-.12*
FTW*PD				-.02	.04	-.03
Adjusted R²			.04			.04
F			2.74**			2.39**
ΔR²			.06**			.02
ΔF			2.74**			1.54

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$. FTW = Family-to-work Conflict, PD = Psychological Detachment.

Table 13. Moderated multiple regression results for work-to-family conflict predicting work engagement moderated by psychological detachment.

Predictors	N = 295					
	Step 1			Step 2		
	B	SE	B	B	SE	β
Intercept	3.00	.45		3.12	.46	
Age	.01	.01	.05	.01	.01	.05
Gender	-.04	.09	-.02	-.03	.09	-.02
Marital Status	-.05	.04	-.12	-.05	.04	-.11
Parental Status	.11	.14	.07	.11	.14	.07
Elder Care Status	.14	.10	.09	.15	.10	.10
Job Tenure	-.00	.00	-.20*	-.00	.00	-.20**
Hours worked per week	.01	.01	.10	.01	.01	.08
Work-to-family Conflict				.03	.03	.06
Psychological Detachment				-.08	.05	-.10
WTF*PD				-.01	.03	-.02
Adjusted R²			.04			.04
F			2.74**			2.31*
ΔR²			.06**			.01
ΔF			2.74**			1.29

Note. One-tailed directional tests were used to test coefficients.

* $p < .05$, ** $p < .01$. WTF = Work-to-family Conflict, PD = Psychological Detachment.

Table 14. Information criteria for latent profile analysis for three levels of psychological detachment.

Loglikelihood	Free Parameters	AIC	BIC	Sample-size Adjusted BIC	Entropy (*E*)
-1463.29	26	2978.58	.3074.44	2991.99	.81

Notes. *N* = 295.

Table 15. Average latent class probabilities for most likely latent class membership by latent class regarding psychological detachment.

Latent Class	Latent Class Membership		
	1	2	3
1	.90	.10	.00
2	.04	.91	.05
3	.00	.06	.95

Notes. $N = 295$.

Table 16. Confirmatory factor analysis goodness-of-Fit indicators for psychological detachment.

Model	χ^2	*df*	RMR	GFI	CFI
Single Factor Model	12.99	2	.03	.98	.94

Notes. $N = 295$.

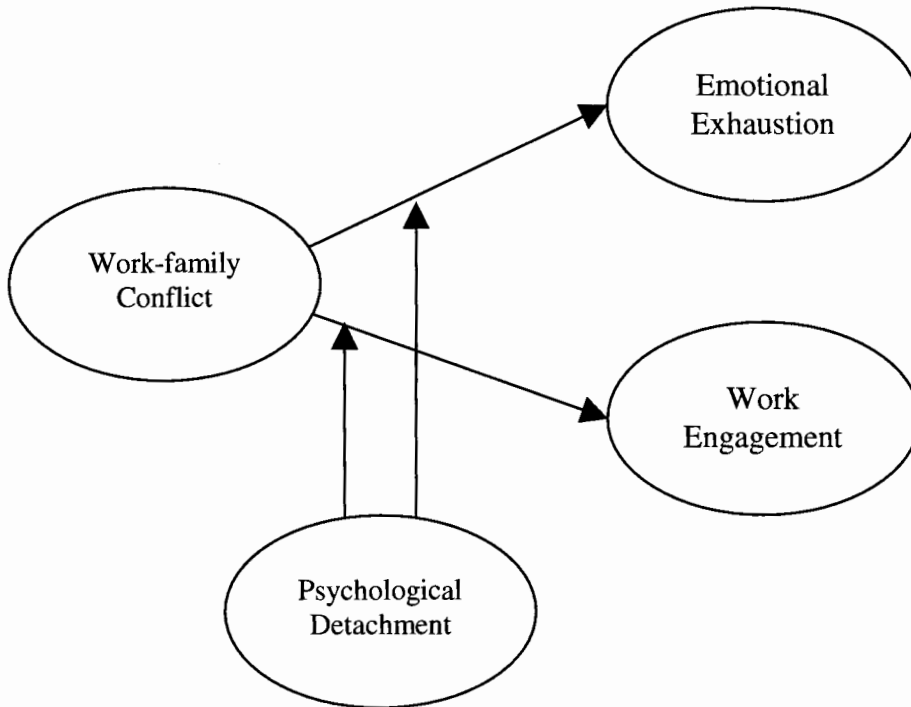*Figure 1.* Overall Conceptual Model for the Proposed Study
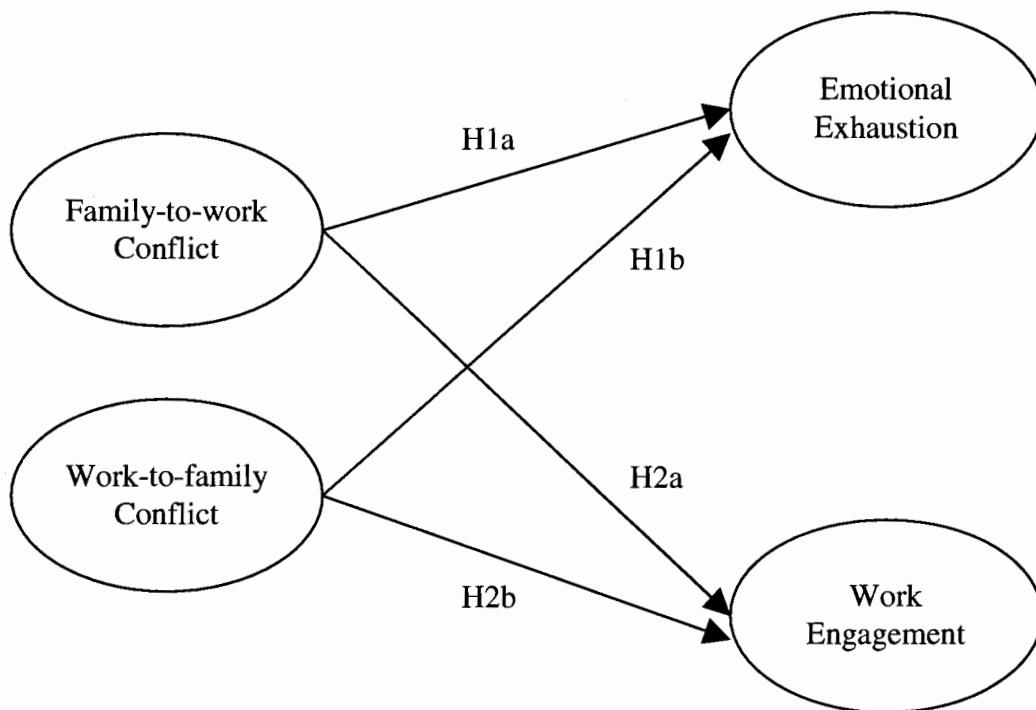
Figure 2. Model of Hypothesized Main Effects
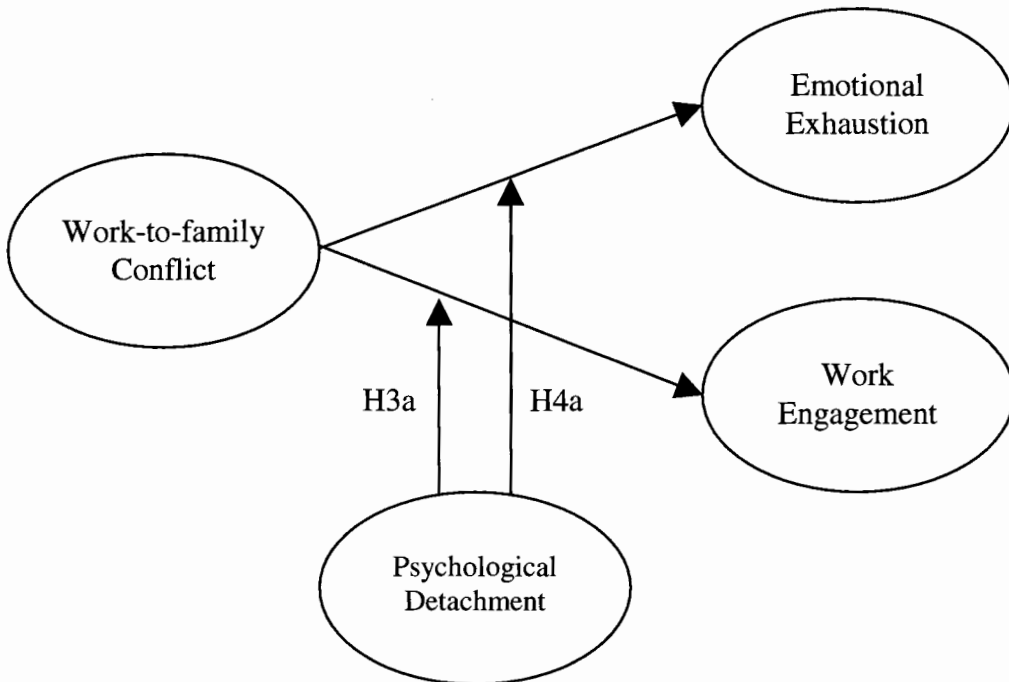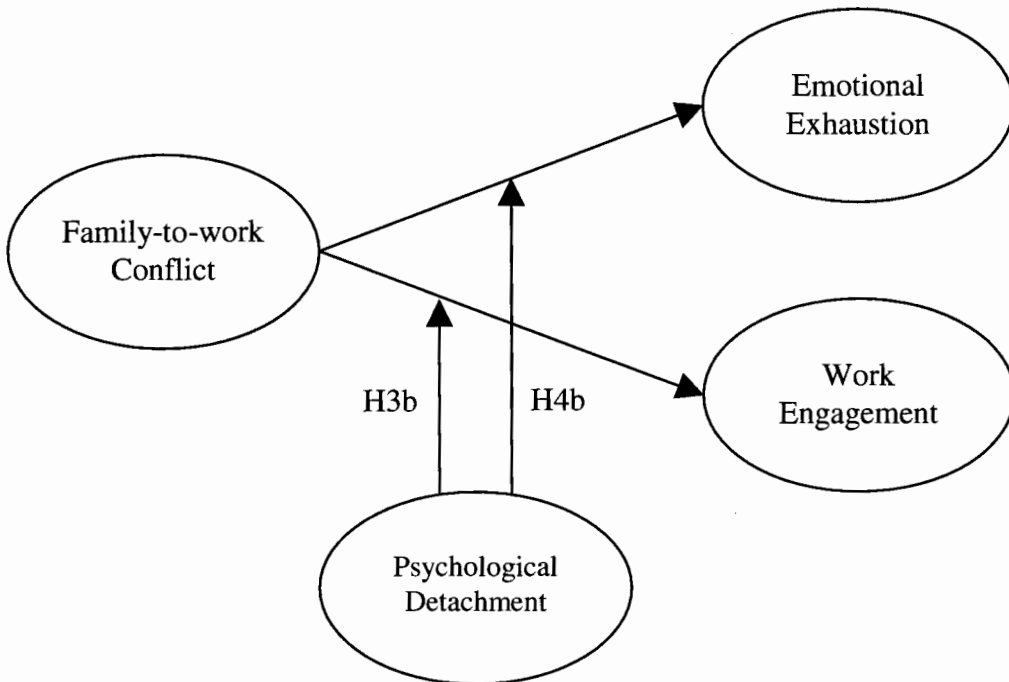
Figure 3. Model of Hypothesized Moderations

Figure 4. Additional Model of Hypothesized Moderations

References

Adams, G. A., King, L. A., & King, D. W. (1996). Relationships of job and family
involvement, family social support, and work-family conflict with job and life
satisfaction. *Journal of Applied Psychology, 81(4),* 411-420.

Allen, N. J., & Meyer, J. P. (1990). Affective, continuance, and normative
commitment to the organization. *Journal of Vocational Behavior, 49,* 252-276.

Anderson, J. G. (1991). Stress and burnout among nurses: A social network approach.
Journal of Social Behavior and Personality, 6, 251-272.

Aryee, S. (1993). A path-analytic investigation of the determinants of career
withdrawal intentions of engineers: Some HRM issues arising in professional
labor market in Singapore. *International Journal of Human Resource
Management, 4,* 213-230.

Aryee, S., Fields, D., Luk, V. (1999). A cross-cultural test of a model of the work
family interface. *Journal of Management, 25(4),* 491-511.

Aryee, S., Luk, V., Leung, A., & Lo, S. (1999). Role stressors, interrole conflict, and
well-being: The moderating influence of spousal support and coping behaviors
among employed parents in Hong Kong. *Journal of Vocational Behavior, 54,*
259-278.

Aronsson, G., Svensson, L., & Gustafsson, K. (2003). Unwinding, recuperation, and
health among compulsory school and high school teachers in Sweden.
International Journal of Stress Management, 10(3), 217-234.

Babin, B. J., & Boles, J. S. (1996). The effects of perceived co-worker involvement

and supervisor support on service provider role stress, performance and job satisfaction. *Journal of Retailing, 72(1),* 57-75.

Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2005). The crossover of burnout and work engagement among working couples. *Human Relations, 58(5),* 661-689.

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99(2),* 274-284.

Bakker, A. B., van Emmerik, H., & Euwema, M. C. (2006). Crossover of burnout and engagement in work teams. *Work and Occupations, 33,* 464-489.

Barling, J., MacEwen, K. E., Kelloway, E. K., & Higginbottom, S. F. (1994). Predictors and outcomes of elder-care based interrole conflict. *Psychology and Aging, 9,* 391-397.

Barnett, R. C., Gareis, K. C., & Brennan, R. T. (1999). Fit as a mediator of the relationship between work hours and burnout. *Journal of Occupational Health Psychology, 4(4),* 307-317.

Bacharach, S. B., Bamberger, P., Conley, S. (1991). Work-home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior, 12,* 39-53.

Beehr, T. A., & Glazer, S. (2005). Organizational role stress. *Handbook of Work Stress.* In J. Barling, E. K. Kelloway, & M. R. Frone (Eds.). Thousand Oaks, CA: Sage Publications.

Boles, J. S., & Babin, B. J. (1996). On the front lines: Stress, conflict, and the customer service provider. *Journal of Business Research, 37(1),* 41-50.

Boles, J. S., Johnson, M. W., & Hair, J. F. Jr. (1997). Role stress, work-family conflict and emotional exhaustion: Inter-relationships and effects on some work-related consequences. *Journal of Personal Selling and Sales Management, 17(1),* 17-28.

Bond, J. T., Galinsky, E., & Swanberg, J. E. (1997). *The 1997 national study of the changing workforce.* New York: Families and Work Institute.

Burke, R. J. (1988). Some antecedents and consequences of work-family conflict. *Journal of Social Behavior & Personality, 3(4),* 287-302.

Burke, R. J. (1994). Stressful events, work-family conflict, coping, psychological burnout, and well-being among police officers. *Psychological Reports, 75,* 787-800.

Burke, R. J., & Greenglass, E. R. (2001). Hospital restructuring, work-family conflict and psychological burnout among nursing staff. *Psychology and Health, 16,* 583-594.

Burke, R. J., & Mikkelsen, A. (2006). Burnout among Norwegian police officers: Potential antecedents and consequences. *International Journal of Stress Management, 13(1),* 64-83.

Carr, J. C., Boyar, S. L., Gregory, B. T. (2008). The moderating effect of work-family centrality on work-family conflict, organizational attitudes, and turnover behavior. *Journal of Management, 34(2),* 244-262.

Cordes, C. L., & Dougherty, T. W. (1993). A review and an integration of research on job burnout. *Academy of Management Review, 18(4)*, 621-656.

Cropanzano, R., Rupp, D. E., & Byrne, Z. S. (2003). The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied Psychology, 88(1)*, 160-169.

Cropley, M., & Millward Purvis, L. J. (2003). Job strain and rumination about work issues during leisure time: A diary study. *European Journal of Work and Organizational Psychology, 12(3)*, 195-207.

De Lange, A. H., Taris, T. W., Kompier, M. A. J., Houtman, I. L. D., & Bongers, P. M. (2003). "The very best of the millenium": Longitudinal research and the demand-control-(support) model. *Journal of Occupational Health Psychology, 8(4)*, 282-305.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). Job demands resources model of burnout. *Journal of Applied Psychology, 86(3)*, 499-512.

Dubinsky, A. J., Howell, R. D., Ingram, T. N., & Bellenger, D. N. (1986). Salesforce Socialization. *Journal of Marketing, 50*, 192-207.

Duxbury, L. E., & Higgins, C. A. (1991). Gender differences in work-family conflict. *Journal of Applied Psychology, 76*, 60-74.

Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review, 25(1)*, 178-189.

Etzion, D. (1984). Moderating effect of social support on the stress-burnout

relationship. *Journal of Applied Psychology, 69(4),* 615-622.

Etzion, D., Eden, D., & Lapidot, Y. (1998). Relief from job stressors and burnout: Reserve service as respite. *Journal of Applied Psychology, 83,* 577-585.

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

Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (pp. 143-162). Washington, DC: American Psychological Association.

Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77(1),* 65-78.

Frone, M. R., Russell, M., & Cooper, M. L. (1993). Relationship of work-family conflict, gender, and alcohol expectancies to alcohol use/abuse. *Journal of Organizational Behavior, 14,* 545-558.

Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Behavior, 50,* 145-167.

Goff, J., Mount, M. K., & Jamieson, R. L. (1990). Employer supported child care, work/family conflict, and absenteeism: A field study. *Personnel Psychology, 43,* 793-809.

Good, L. K., Page, T. J., & Young, C. E. (1996). Assessing hierarchical differences in job-related attitudes and turnover among retail managers. *Journal of Academy of Marketing Science, 24(2),* 148-156.

Good, L. K., Sisler, G. F., Gentry, J. W. (1988). Antecedents of turnover intentions among retail management personnel. *Journal of Retailing, 64,* 295-314.

Goolsby, J. R. (1992). A theory of role stress in boundary spanning positions of marketing organizations. *Journal of the Academy of Marketing Science, 20(2),* 155-164.

Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behavior, 54,* 350-370.

Grebner, S., Semmer, N. K., & Elfering, A. (2005). Working conditions and three types of well-being: A longitudinal study with self-report and rating data. *Journal of* Occupational Health Psychology, 10, 31-43.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10(1),* 76-88.

Greenhaus, J. H., & Parasuraman, S. (1987). A work-nonwork interactive perspective of stress and its consequences. In J. M. Ivancevich & D. C. Ganster (Eds.), *Job stress: From theory to suggestion* (pp. 37-60). New York: Haworth.

Greenglass, E. R., Burke, R. J. (1988). Work and family precursors of burnout in teachers: Sex differences. *Sex Roles, 18,* 215-229.

Gutek, B. A., Searle, S. & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology, 76,* 560-568.

Hackman, J. R., & Oldham, G. R. (1975). *Development of the Job Diagnostic Survey, 60(2),* 159-170.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43(6),* 495-513.

Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology, 92(1),* 93-106.

Hammer, L. B., Bauer, T. N., & Grandey, A. (2003). Effects of spouses' and own work-family conflict on withdrawal behaviors. *Journal of Business and Psychology, 17,* 419-436.

Hammer, L. B., Cullen, J. C., Neal, M. B., Sinclair, R. R., & Shafiro, M. V. (2005). The longitudinal effects of work-family conflict and positive spillover on depressive symptoms among dual-earner couples. *Journal of Occupational Health Psychology, 2,* 138-154.

Hammer, L. B., Neal, M. B., Newsom, J. T., Brockwood, K. J., & Colton, C. L. (2005). A longitudinal study of the effects of dual-earner couples' utilization of family-friendly workplace supports on work and family outcomes. *Journal of Applied Psychology, 90(4),* 799-810.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship

between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87(2),* 268-279.

Hartig, T., Evans, G. W., Jamner, L. D., Davis, D. S., & Gärling, T. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology, 23,* 109-123.

Hobfoll, S. E. (1989). Conservation of resources. *American Psychologist, 44(3),* 513-524.

Hobfoll, S. E. (1998). *Stress, culture, and community.* New York: Plenum.

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology, 50(3),* 337-421.

Hobfoll, S. E., & Shirom, A. (2001). Conservation of resources: Applications to stress and management in the workplace. In R. T. Golembiewski (Ed.), *Handbook of organizational behavior* (pp. 57-80). New York: Marcel Dekker.

Hochschild, A. R. (1997). *The time bind: When work becomes home and home becomes work.* New York: Metropolitan.

Hofstede, G. (1980). *Culture's consequences: Interactional differences in work related values.* Beverly Hills, CA: Sage.

Ivancevich, J. M., & Matteson, M. T. (1980). *Stress and work.* Glenview, IL: Scott, Foresman.

Jacobs, J. A., & Gerson, K. (1998). Who are the overworked Americans? *Review of Social Economy, 56,* 442-459.

Jacobs, J. A., & Gerson, K. (2001). Overworked individuals or overworked families?: Explaining trends in work, leisure, and family time. *Work and Occupations, 28,* 40-63.

Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology, 71(4),* 630-640.

Jawahar, I. M., Stone, T. H., & Kisamore, J. L. (2007). Role conflict and burnout: The direct and moderating effects of political skill and perceived organizational support on burnout dimensions. *International Journal of Stress Management, 14(2),* 142-159.

Jex, S. M. (1998). *Stress and job performance: Theory, research, and implications for managerial practice.* Thousand Oaks, CA: Sage.

Jex, S. M., & Beehr, T. A. (1991). Emerging theoretical and methodological issues in the study of work-related stress. *Research in Personnel and Human Resources Management, 9,* 311-365.

Johansson, G., Evans, G. W., Rydstedt, L. W., & Carrere, S. (1998). Job hassles and cardiovascular reaction patterns among urban bus drivers. *International Journal of Behavioral Medicine, 5(4),* 267-280.

Judge, T. A., Boudreau, J. W, & Bretz, R. D., Jr. (1994). Job and life attitudes of male executives. *Journal of Applied Psychology, 79,* 767-782.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33,* 692-724.

Kahn, J., & Langlieb, A. M. (2003). *Mental health and productivity in the workplace:*

A handbook for organizations and clinicians. Hoboken, NJ: Jossey-Bass.

Kahn, R. L., & Byosiere, P. B. (1992). Stress in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial/organizational psychology* (2nd ed., Vol. 3, pp. 571–650). Palo Alto, CA: Consulting Psychologists Press.

Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity.* New York: Wiley.

Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology, 67, 64-78.*

Kinnunen, U., & Mauno, S. (1998). Antecedents and outcomes of work-family conflict among employed women and men in Finland. *Human Relations, 51(2),* 157-177.

Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983). A model of work, family, and interrole conflict: A construct validation study. *Organizational Behavior and Human Performance, 32(2),* 198-215.

Kossek, E. E., & Ozeki, C. (1999). Bridging the work-family policy and productivity gap: A literature review. *Community, Work & Family, 2(1),* 7-32.

Lau, S. K. (1981). Chinese familism in an urban-industrial setting: The case of Hong Kong. *Journal of Marriage and Family, 43(4),* 977-992.

Lee, R., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology, 81,* 123-133.

Leiter, M. P. (1993). Burnout as a developmental process: Consideration of models. In

W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 237-250). Washington, DC: Taylor & Francis.

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior, 9,* 297-308.

Leiter, M. P., & Schaufeli, W. B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress & Coping, 9,* 229-24.

Llorens, S., Schaufeli, W., Bakker, A., & Salanova, M. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior, 23(1),* 825-841.

Low, G. S., Cravens, D. W., Grant, K., & Moncrief, W. C. (2001). Antecedents and consequences of salesperson burnout. *European Journal of Marketing, 35(5, 6),* 587-611.

Lushington, K., & Luscri, G. (2001). Are counseling students stressed? A cross cultural comparison of burnout in Australian, Singaporean and Hong Kong counseling students. *Asian Journal of Counseling, 8(2),* 209-232.

MacEwen, K. E., & Barling, J. (1994). Daily consequences of work interference with family and family interference with work. *Work and Stress, 8,* 244-254.

Major, V. S., Klein, K. J., & Ehrhart, M. G. (2002). Work time, work interference with family, and psychological distress. *Journal of Applied Psychology, 87,* 427-436.

Maslach C. 1982. *Burnout: The Cost of Caring.* Englewood Cliffs, NJ: Prentice-Hall.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2,* 99-113.

Maslach, C., & Jackson, S. E. (1985). The role of sex and family variables in burnout. *Sex Roles, 12(7, 8),* 837-851.

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it.* San Francisco, CA: Jossey-Bass.

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93(3),* 498-512.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52,* 397-422.

Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior, 70(1),* 149-171.

Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. Drenth, H. Thierry, & C. J. de Wolff (Eds.), *Handbook of work and organizational psychology* (2nd ed., pp. 5–33). Hove, England UK: Psychology Press/Erlbaum (UK) Taylor & Francis.

Mishel, L., Bernstein, J., & Schmitt, J. (1999). *The state of working America 1998-99.*Washington, DC: Economic Policy Institute.

Moore, J. E. (2000). Why is this happening? A causal attribution approach to work exhaustion consequences. *Academy of Management Review, 25(2),* 335-349.

Netemeyer, R. C., Boles, J. S., & McMurrian R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81(4),* 400-410.

O'Driscoll, M. P., Ilgen, D. R. & Hildreth, K. (1992). Time devoted to job and off- job activities, interrole conflict, and affective experiences. *Journal of Applied Psychology, 77,* 272-279.

Parasuraman, S., Greenhaus, J. H., & Granrose, C. S. (1992). Role stressors, social support, and well-being among two-career couples. *Journal of Organizational Behavior, 13,* 339-356.

Parasuraman, S., Purohit, Y. S., Godshalk, V. M., Beutell, N. J. (1996). Work and family variables, entrepreneurial career success, and psychological well-being. *Journal of Vocational Behavior, 48(3),* 275-300.

Pastor, D. A., Barron, K. E., Miller, B. J., & Davis, S. L. (2007). A latent profile analysis of college students' achievement goal orientation. *Contemporary Educational Psychology, 32,* 8-47.

Patterson, C. R., Bennett, J. B., & Wiitala, W. L. (2005). Healthy and unhealthy stress unwinding: Promoting health in small businesses. *Journal of Business and Psychology, 20(2),* 221-247.

Peeters, M. C. W., Montgomery, A. J., Bakker, A. B., & Schaufeli, W. B. (2005). Balancing work and home: How job and home demands are related to burnout. *International Journal of Stress Management, 12,* 43–61.

Peiro, J. M., Gonzalez-Roma, V., Tordera, N., & Manas, M. A. (2001). Does role

stress predict burnout over time among health care professionals? *Psychology and Health, 16,* 511-525.

Pines, A., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth.* New York: Free Press.

Pravettoni, G., Cropley, M., Leotta, S. N., & Bagnara, S. (2008). The differential role of mental rumination among industrial and knowledge workers, *Ergonomics, 50(11),* 1931-1940.

Rasku, A., & Kinnunen, U. (2003). Job conditions and wellness among Finnish upper secondary school teachers. *Psychology and Health, 8,* 441–456.

Repetti, R. L. (1989). Effects of daily workload on subsequent behavior during marital interaction: The roles of social withdrawal and spouse support. *Journal of Personality and Social Psychology, 57,* 651-659.

Roger, D., & Jamieson, J. (1988). Individual differences in delayed heart-rate recovery following stress: The role of extraversion, neuroticism and emotional control. *Personality and Individual Differences, 9,* 721 – 726.

Rook, J. W., & Zijlstra, F. R. H. (2006). The contribution of various types of activities to recovery. *European Journal of Work and Organizational Psychology, 15(2),* 218-240.

Rones, P. L., Ilg, R. E., & Gardner, J. M. (1997, April). Trends in hours of work since the mid-1970s. *Monthly Labor Review,* 3-14.

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Quarterly, 46,* 655-684.

Russell, J. A., & Carroll, J. M. (1999). On the bipolarity of positive and negative affect. *Psychological Bulletin, 125,* 3-10.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25,* 293-315.

Schaufeli, W. B., & Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66(4),* 701-716.

Schaufeli, W. B., & Buunk, B. P. (2003). Burnout: An overview of 25 years of research and theorizing. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *The handbook of work and health psychology* (2nd ed, pp. 383-429). New York: Wiley.

Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis.* Washington, DC: Taylor & Francis.

Schaufeli, W. B., Martinez, I. M., Marques-Pinto, A., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology, 33(5),* 464-481.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55,* 5-14.

Shirom, A. (1989). Burnout in work organizations. In. C. L. Cooper, & I. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 25-48). New York: Wiley & Sons.

Shirom, A. (2003). Job-related burnout: A review. In J. C. Quick & L. E. Tetrick

    (Eds.), *Handbook of occupational health psychology,* (pp. 245-264).

    Washington, DC: American Psychological Association.

Singh, J., Goolsby, J. R., & Rhoads, G. K. (1994). Behavioral and psychological

    consequences of boundary spanning burnout for customer service

    representatives. *Journal of Marketing Research, 31,* 558-569.

Sluiter, J. K., van der Beek, A. J., & Frings-Dresen, M. H. (1998). Work stress and

    recovery measured by urinary catecholamines and cortisol excretion in long

    distance coach drivers. *Occupational and Environmental Medicine, 55,* 407-

    413.

Sonnentag, S. (2001). Work, recovery activities, and individual well-being: A diary

    study. *Journal of Occupational Health Psychology, 6(3),* 196-210.

Sonnentag, S., & Bayer, U.-V. (2005). Switching off mentally: Predictors and

    consequences of psychological detachment from work during off-job time.

    Journal of Occupational Health Psychology, 10(4), 393-414.

Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire:

    Development and validation of a measure for assessing recuperation and

    unwinding from work. *Journal of Occupational Health Psychology, 12(3),*

    204-221.

Spector, P. E., Chen, P. Y., & O'Connell, B. J. (2000). A longitudinal study of

    relations between job stressors and job strains while controlling for prior

    negative affectivity and strains. *Journal of Applied Psychology, 85,* 211–218.

Stanton-Rich, H. M., & Iso-Ahola, S. E. (1998). Burnout and leisure. Journal of Applied *Social Psychology, 28(21),* 1931-1950.

Steptoe, A., Cropley, M., & Joekes, K. (1999). Job strain, blood pressure, and responses to uncontrollable stress. *Journal of Hypertension, 17,* 193 – 200.

Sujan, H., Weitz, B. A., & Kumar, N. (1994). Learning orientation, working smart, and effective selling. *Journal of Marketing, 58(3),* 39-52.

Totterdell, P., Spelten, E., Smith, L., Barton, J., & Folkard, S. (1995). Recovery from work shifts: How long does it take? *Journal of Applied Psychology, 80(1),* 43-57.

Tubre, T. C., & Collins, J. M. (2000). Jackson and Schuler (1985) revisited: A meta analysis of the relationships between role ambiguity, role conflict, and job performance. *Journal of Management, 26(1),* 155-169.

Voydanoff, P. (1988). Work role characteristics, family structure demands, and work/family conflict. *Journal of Marriage and the Family, 50,* 749-761.

Vrijkotte, T. G. M., Van Doornen, L. J. P., & De Geus, E. J. C. (2000). Effects of work stress on ambulatory blood pressure, heart rate, and heart rate variability. *Hypertension, 35,* 880-886.

Westman, M., & Eden, D. (1997). Effects of a respite from work on burnout: Vacation relief and fade-out. *Journal of Applied Psychology, 82,* 516-527.

Wharton, A. S. (1993). The affective consequences of service work. *Work and Occupations, 20(2),* 205-232.

Wilcox-Matthew, L., & Minor, C. W. (1989). The dual career couple: Concerns,

benefits, and counseling implications. *Journal of Counseling and Development, 68(2),* 194-198.

Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology, 83(3),* 486-493.

Wu, S., Zhu, W., Wang, Z., Wang, M., & Lan, Y. (2007). Relationship between burnout and occupational stress among nurses in China. *Journal of Advanced Nursing, 59(3),* 233-239.

Xie, J. L., & Schaubroeck, J. (2001). Bridging approaches and findings across diverse disciplines to improve job stress research. In P. L. Perrewe & D. C. Ganster (Eds.), *Research in occupational stress and well being* (Vol. 1, pp. 1-53). Oxford, England: Elsevier Science.

Yin, X. (2005). New trends of leisure consumption in China. *Journal of Family and Economic Issues, 26(1),* 175-182.

Zedeck, S., & Mosier, K. L. (1990). Work in the family and employing organization. *American Psychologist, 45,* 240-251.

Zhang, Y., Gan, Y., & Cham, H. (2007). Perfectionism, academic burnout and engagement among Chinese college students: A structural equation modeling analysis. *Personality and Individual Differences, 43(6),* 1529–1540.

Zohar, D., Tzischinski, O., & Epstein, R. (2003). Effects of energy availability on immediate and delayed emotional reactions to work events. *Journal of Applied Psychology, 88,* 1082-1093.