

A RESOURCE PERSPECTIVE LINKING PERSONALITY TRAITS AND WORK-  
FAMILY CONFLICT AND ENRICHMENT: EXAMINATION OF THE INDIRECT  
EFFECT THROUGH RESOURCE DEVELOPMENT

A Dissertation

by

JIEXIN WANG

Submitted to the Office of Graduate and Professional Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Chair of Committee,	Wendy R. Boswell
Committee Members,	Murray R. Barrick
	Stephen H. Courtright
	Oi-Man Kwok
Head of Department,	Wendy R. Boswell

August 2016

Major Subject: Management

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## ABSTRACT

Challenging the prior research viewing employees as passive beings who respond to work-family conflict, this dissertation studies employees as active agents who shape their experience of work-family conflict and enrichment through developing resources based on their attentional efforts. Specifically, drawing on Conservation of Resources Theory, this dissertation proposes and tests a resource-based process model that explain the indirect effect of key resources (conscientiousness, extraversion, and agreeableness) on work-family conflict and work-family enrichment through differential resource development processes (human capital development, social capital development, and altruistic development). The results show support that agreeableness is associated with work-family conflict and enrichment through its unique effect on altruistic capital development. The indirect effect of conscientiousness on work-family conflict and enrichment operates through human capital development and altruistic capital development. Extraversion is associated with work-family conflict and enrichment through all three types of resource development. Moreover, the supplementary analysis using a longitudinal mediation design reveals a pattern of reverse causality—the positive relationship between conscientiousness and human capital development is attributable to the indirect effect through work-family enrichment.

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## CHAPTER I

### INTRODUCTION

Work-family research has received considerable scholarly attention over the past decades, due in large part to an increasingly blurred boundary between work and family coupled with the awareness of the importance of employee well-being on businesses' sustainable growth (e.g., Bond, Galinsky, & Swanberg, 1998; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005). The interaction between work and family can be broadly referred to as “experiences in the work (family) domain that impact experiences in the work (family) domain” (Eby, Maher, & Butts, 2010, p.600).

Numerous theories have been used to explain work-family phenomena, ranging from role theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), an ecological perspective (Bronfenbrenner, 1989), resource drain theory (Rothbard, 2001), and the recently developed enrichment perspective (Voydanoff, 2001). Probably one of the more commonly applied theories in the work-family literature is related to Conservation of Resource Theory (COR) (Hobfoll, 2001). Grounded in a resource scarcity assumption of COR theory, early work-family research focused on the *negative* experiences of work-family interaction, or work-family conflict—i.e., conflict arises when multiple role demands (such as work role and family role) compete for one's limited amount of resources (Edwards & Rothbard, 2000; Groode, 1960). That is, the time and the energy spent in the performance of work (family) roles, and the strain from doing so, divert attentional resources necessary for performing family (work) roles (Greenhaus &

Beutell, 1985). Greenhaus and Beutell (1985) also specified strain-based conflict (strain originated in one domain can hamper one's role performance in another domain) and behavior-based conflict (behavior developed in one role interferes with role performance in the other domain).

In contrast, consistent with the rise in positive psychology (e.g., Seligman & Csikszentmihalyi, 2000), recent research has expanded the study of *positive* experiences of work-family interaction, or work-family enrichment, which is referred to as “the extent to which experiences in one role (e.g., work) improve the quality of life in another role (e.g., family)” (Greenhaus & Powell, 2006, p.73). Studies on work–family enrichment have focused on the synergistic effect of resource transition associated with improved role performance or quality of life (cf. Carlson, Kacmar, Wayne, & Grzywacz, 2006). Given that a key driver of enrichment process is resource generation (Greenhaus & Powell, 2006), work-family enrichment has found to be associated with gains of affective resources (e.g., positive mood, job satisfaction, affective commitment, and family satisfaction) as well as improved job performance (Carlson et al., 2011; McNall et al., 2010).

Resources have played an important role in the work-family literature (e.g., Halbesleben, Harvey, & Bolino, 2009; Halbesleben, Wheeler, & Rossi, 2012). Previous research has mainly focused on *the levels of resources* embedded at work (e.g., high vs. low levels of job resources) as a determinant of one's experience of work-family conflict and work-family enrichment. For instance, Bakker and colleagues (2011) found that low job resources combined with high job demands contributed to partner ratings of the

employee's work-family conflict. However, this line of research has neglected *the manner in which resources were being developed* as one important predictor of work-family conflict and enrichment. Such an omission is problematic because individuals' resources do not develop automatically; employees would need to devote efforts to maintain and develop resources in order to cope with work-family conflict and enable work-family enrichment (Hobfoll, 2001; Voydanoff, 2001).

Moreover, existing work-family literature, using a resource lens, has also tended to assume that individuals' experience of work-family conflict and work-family enrichment are products of one's *reaction* to contextual resources, while it has failed to capture individual's *attentional* efforts devoted to regulate the interaction between work and family roles (e.g., Bakker, Demerouti, & Dollard, 2008; Butler, Grzywacz, Bass, & Linney, 2005; Carlson, Grzywacz, Ferguson, Hunter, Clinch, & Arcury, 2011; Grzywacz & Butler, 2005; Voydanoff, 2004; Thompson & Prottas, 2006). It is theoretically important to understand individuals' *intentional efforts* in directing investment in resources. This is because COR theory suggests that people are *motivated* to direct investment in order to approach resource acquisition states and to protect against resources loss (Hobfoll, 2001). In fact, there have been numerous calls for more research to study individuals' active role in shaping their work-family experience. For instance, Kreiner and colleagues (2009) posited that "clearly, individuals play a crucial role in affecting work-home outcomes; they are not mere automatons reacting helplessly to the pressure around them" (p.705).

From a resource perspective, personality traits as “key resources” have been considered as one of the most important predictors that influence the way in which one develops resources (Hobfoll, 2001; ten Brummelhuis & Bakker, 2012). This is because personality traits represent one’s endowment of internal resources (attention, energy, focus), which can be invested to develop other resources (skills, social status; Greenhaus & Powell, 2006; Hobfoll, 2011; ten Brummelhuis & Bakker, 2012; Kammeyer-Mueller, Judge, & Scott, 2009). Personality traits have also long been studied in the work-family literature. For instance, recent meta-analyses suggest that “bright side” personality traits such as conscientiousness, extraversion, and agreeableness are *negatively* related to work-family conflict (see Allen et al., 2012; Michel et al., 2011 for more details). However, it is theoretically possible that personality traits indirectly influence work-family conflict and enrichment. For instance, one may expect a *positive indirect* relationship between agreeableness and work-family conflict through the manner in which resources being directed — agreeable individuals may overload themselves and experience resource drain through taking on more responsibilities at work, which in turn leads to higher levels of work-family conflict (Bruck & Allen, 2003). However, this theoretical aspect has not been empirically substantiated.

To remedy the aforementioned theoretical limitations, this dissertation builds on COR theory to test an integrative resource-based process model. Specifically, I propose that personality traits indirectly influence work-family conflict and enrichment through resource development, or the manner in which one invest their resources to gain additional resources. Additionally, I draw on the resource investment principle of COR

theory, but from a motivational perspective, to examine whether/how people with different personality types are *intentional* in directing investment in certain resources. This dissertation also intends to study work-family conflict and work-family enrichment in an integrative fashion, through examining the double-edged effect of resource investment.

One final limitation in prior work-family research that the present study attempts to address is methodological. Most work-family research has been criticized for simply relying on cross-sectional design and poor interpretation of causal relations (Boyar & Mosley, 2007; Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007; Greenhaus, 2008; ten Brummelhuis & Bakker, 2012; Greenhaus & Parasuraman, 1999; Lambert, 1990). This is problematic because it limits our knowledge about the dynamic process through which conflict or enrichment between work and family arises. From a resource perspective, research has simply assessed how the level and source of resources at work influence work-family outcomes; far less research has applied a longitudinal design to test the dynamic potential nature of underlying resource fluctuation and mobilization within and across life domains (Hobfoll, 2001; McCarthy & Zald, 1977; see Demerouti, Bakker, & Bulters, 2004 and Halbesleben & Wheeler, 2015 as exceptions).

To address this gap, this dissertation uses both a time-lag design and longitudinal design to test how three personality traits—conscientiousness, extraversion, and agreeableness (discussed more below)—govern the change in resource development and corresponding shifts in the interaction between work and family roles. A combination of time-lag and longitudinal design allows one to investigate not only “levels” of resources

being developed at work but also how such resources relate to work-family conflict and work-family enrichment over time. Although not formally hypothesized, it is beneficial to use longitudinal data as supplementary analysis, as it addresses alternative causality explanations of cross-sectional mediated effects (Cole & Maxwell, 2003; MacKinnon, 2007). Based on the concept of resource gain/loss cycle derived in the COR theory, longitudinal data is also useful to reveal a pattern of reciprocal causality between resource development and work-family conflict and enrichment. In other words, initial resource development at work, governed by a certain personality, may reinforce resource accumulation or resource consumption on the work-family interface into the resource spiral. As such, this dissertation responds to Halbesleben et al.'s (2014) call for incorporating a time element in order to understand the role of key resources such as personality on resource development at work and, subsequently, on employee outcomes (e.g., work-family conflict and enrichment).

In the next section, I provide an overview of the model proposed and tested in this dissertation. More specifically, I describe and provide justification for the key constructs of focus followed by a brief description of the general links in the model.

### **Model Overview**

#### **Conscientiousness, Extraversion, Agreeableness as Predictors**

The factor model (FFM) or “big five” has been a well-accepted taxonomy that captures the stable individual differences in personality (Barrick & Mount, 1991; Costa & McCrae, 1992; Li, Barrick, Zimmerman, & Chiaburu, 2014). This dissertation focuses on three of the FFM traits—conscientiousness (dependability, achievement, and

persistence), extraversion (ambitious and sociable), and agreeableness (cooperative, altruistic, and trustworthy) for two primary reasons. First, in the meta-analysis of Michel et al. (2011) connecting FFM traits with work-family conflict and enrichment, only agreeableness, conscientiousness, and extraversion have statistically significant relationships with *both* work-family conflict and work-family enrichment.

Second, within the organizational behavior literature, the focus has been on the work domain. Within the work domain, the focus has almost exclusively been on achievement (*task competence*) and social relationships (status, or “*getting ahead*” and social acceptance, or “*getting along*”) (Ashton & Lee, 2001; Back & Vazire, 2015; Hogan, 1996; Oh & Berry, 1999; Sheldon, 2004). Conscientiousness, extraversion, and agreeableness are the three most theoretically relevant personality traits to my focus here because conscientious individuals strive for excellence and *achievement* and act toward accomplishing tasks at work; extroverts strive for *social status* and act toward obtaining power and dominance; and agreeable individuals strive for communion and act toward *getting along* with others.

### **Human Capital Development, Social Capital Development, and Altruistic Capital Development as Three Types of Resource Development**

Because resources play a central role in the hypothesized theoretical framework, it is useful to distinguish among the different types of resources embedded at work before examining investigated constructs in the model more closely. Hobfoll (2002) noted that personal resources are those proximate to the self, including personality characteristics, energies, time, knowledge, experience (Hobfoll, 1989; ten Brummelhuis

& Bakker, 2012). In a work setting, individuals have access to a certain level of job resources, which are defined as “aspects of a job that help employees to achieve their work goals, to develop personally, and to deal with job demands” (Parker, 2014, p. 668; also see Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Hobfoll, 1989 for similar definitions). The work design literature (e.g., the job demands-resources model; Demerouti et al., 2001) has highlighted the importance of job resources. Enriched jobs enable employees to achieve work and family goals and learn from their experience, and thus may enhance employees well-being (Carlson et al., 2011; Kelly et al., 2008). Examples of job resources are autonomy, skill discretion, social support, and career opportunities (Bakker & Demerouti, 2007; Xanthopoulou et al., 2007). Recent extensions in the work design literature have employed a prosocial and relational approach to identify a broader set of job resources, including collaboration opportunities (Grant, 2007; Grant & Parker, 2009). In summary, resources embedded at work can be person-related (e.g., personality traits), task-related (e.g., skill, knowledge, and information), or social/relational related (e.g., relationship building/help with tasks at work) (Hobfoll, 2011; Westman et al., 2007).

In accordance with task-related resources that enable people to develop personally and to perform the job well, the first resource development construct is human capital development. By definition, human capital at the individual level refers to individuals’ knowledge, skills, information, and expertise; these resources are important for accomplishing tasks and achieving desirable performance (Becker, 2002; Youndt & Snell, 2004). Because human capital involves professional development in individuals’

skills, knowledge, and capabilities (Ng & Feldman, 2010; Ployhart, Nyberg, Reilly, & Maltarich, 2014), human capital development can be defined as continuous learning or education through a wide range of activities such as coursework, seminars, training, and other forms of on-the-job activities that broaden one's experience and skills (Birdi, Allan, & Warr, 1997; Maurer & Tarulli, 1994; Noe et al., 1996).

To capture social-related resources, the second resource development construct in the model is social capital development. According to Lin, Cook, and Burt (2001), social capital is defined as “social resources embedded in a social structure that are accessed and/or mobilized in purposive actions” (p. 29). Social capital has been conceptualized and operationalized in many ways primarily based on its structure—a network structure approach (i.e., a ‘weak tie’ approach and ‘structural holes’ approach) and its quality—a social resource perspective (see Seibert, Kraimer, & Liden, 2001 for detailed discussion). Consistent with COR theory, the latter view is adopted in this dissertation—a social resources perspective that focuses on the development of one's social resources embedded in the network. Because network resources (e.g., network status; Fang, Duffy, & Shaw, 2011) represent typical types of social resources, as well as to be consistent with prior research (Blickle, Witzki, & Schneider, 2009; Ng & Feldman, 2010; Thompson, 2005), social capital development is operationalized as relationship building, which is referred to as the extent to which individuals maintain, develop, and utilize networks of people in order to create a positive self-presence and thus increase influence at work.

Drawing on the relational aspect of resources, the third resource development construct identified in the model is altruistic capital development (in the form of helping behavior). Relational and proactive aspects of work design theory provide theoretical insights regarding why to consider this resource-relevant construct. Specifically, this perspective suggests that with organizations relying more on employees to work together, a job should be designed with greater opportunities for collaboration so that employees can go the extra mile to help each other (Grant, 2007; Grant & Parker, 2009; Parker, 2014). Altruistic capital development is operationalized as helping behavior—a type of discretionary behavior that is affiliative, cooperative, assisting and directed at other individuals at work (Anderson & Williams, 1996; Van Dyne & LePine, 1998). Notably, altruistic capital is conceptually different from a strictly relational form of social capital, with the latter construct being characterized as high levels of trust, perceived obligations, and mutual identification between employees (Blatt, 2009; Bolino et al., 2002; Nahapiet & Ghoshal, 1998).

### **A Resource-Based Process Model**

Drawing on Hobfoll's (1989, 2001) COR theory as a starting point and also aiming to extend several aspects of the theory, a resource-based process model is developed to understand *why* and *how* conscientiousness, extraversion, and agreeableness affect work-family conflict and enrichment and primarily *through* which resource development processes. COR theory is used as the theoretical foundation because it focuses not only on resource gains and losses across work and family domains but also highlights the dynamic and complex nature of resource development. The three

personality traits are expected to affect the way people develop resources at work because personality traits represent “key resources”—i.e., those that facilitate development of other resources (Thoits, 1994). This is consistent with the personality literature adopting a resource-based approach to explain the effect of personality traits on how individuals behave at work. Indeed, personality traits as one’s neurobiological makeup have been viewed as a determinant of one’s motives and the base level of energy (Elliot & Thrash, 2002). For instance, Li et al. (2014) noted that “action is contingent on activation of one’s resources or the amount of energy the individual has available to expend or continue to expend. Personality is thought to be one source of additional resources.” (p. 354).

To explore the processes in which individuals with different personality traits develop idiosyncratically valued resources at work and the outcomes of those processes, I propose a process model highlighting differential indirect effect paths. Notably, although researchers have emphasized the importance of differentiating among aspects of how employees develop their resources (Morelli & Cunningham, 2012; Halbesleben & Wheeler, 2015), prior research has rarely empirically tested this notion. This dissertation is intended to fill this gap. Specifically, human capital development, social capital development, and altruistic capital development are proposed as proximal outcomes that are differentially related to three personality traits and transmit the effect of relevant personality trait onto a more distal outcomes of personality—work-family conflict and work-family enrichment.

COR theory provides insights for the differential links between three personality traits and three resource development activities at work. Specifically, COR theory suggests that people with different personality traits may invest in their motivational resources differently in the job so as to achieve their objectives/desired outcomes (Barrick, Mount, and Li, 2013; Halbesleben & Bowler, 2007; Hobfoll, 2001). Indeed, Hobfoll's (1989) theory views motivation as an energy resource. Hobfoll (1998) specifically listed "motivation to get things done" and "feelings that I am accomplishing my goals" as part of the list of COR resources. Hobfoll (1989) also noted that "resources are typified not by their intrinsic values so much as their value in aiding the acquisition of other kinds of resources" (p.51), which suggests that resource development may reflect one's *motivational* choices. This suggests the value of viewing resource development at work as a complex process in which people invest motivation, an energy resource, along with other personal resources (e.g., time, attention, focus) differently in the job to gain resources they need (e.g., skills, information, social status, and a sense of feeling rewarded/valuable) in order to achieve their desired outcomes.

Specifically, conscientiousness will be especially relevant to predicting human capital development because conscientious individuals are dependable and achievement-oriented (Ashton, Lee, Goldberg, & de Vries, 2009; Barrick, Mount, & Judge, 2001; McCrae & Costa, 1999). They are highly motivated to accomplish tasks and likely to invest considerable attention, time, and energy to develop human capital so as to gain knowledge, skills, and experiences to perform the job well. Extraversion is expected to be most relevant to social capital development. This is because extraversion is a trait

capturing the desire of “getting ahead” in the social context. Extroverts are ambitious, dominant, and excitement seeking so they are likely to invest their personal resources to fulfill their desire of obtaining power and enhancing reputation through developing social capital at work (Hogan, Curphy, & Hogan, 1994; Lucas, Diener, Grob, Suh, & Shao, 2000). Agreeableness will have unique effects on altruistic capital development. This is because individuals who are high in agreeableness are cooperative, altruistic, and trustworthy and have a basic motivation for “getting along with others”, all of which will lead them to invest in their energy, time, and attention to develop pleasant and harmonious interpersonal relationships with others (Ilies et al., 2009; Wiggins & Trapnell, 1996).

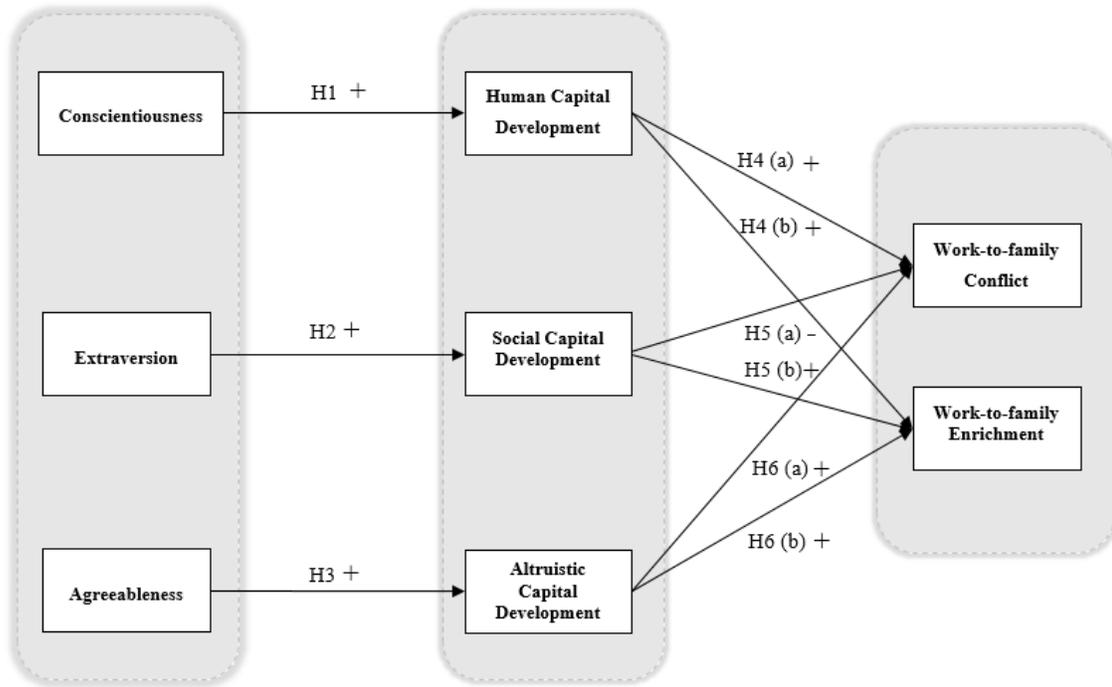
Furthermore, exploring the double-edged nature of “resource investment”—one important yet understudied principle of COR theory, resource development (human capital development, social capital development, and altruistic capital development) is expected to lead to both work-family conflict and work-family enrichment. Many types of resource investment may be considered to be methods for developing resources in a work setting, yet resource investment might be associated with both gaining and spending resources. On the one hand, resource development (through investing in personal resources) leads to resource gains at work (e.g., experience, aspects, knowledge, material support, social status, feeling of fulfillment); these resources may be applied to improve individuals’ performance in the family domain (the occurrence of work-family enrichment). On the other hand, resource development can be demanding and thus drain people’s energy. Work may interfere with family because people who

substantially engage in resource development at work may reduce effort that is put into their family life (lower motivation in dealing with family obligations) (Halbesleben et al., 2009).

Figure 1 summarizes the overall research model. By demonstrating differential effects, the left part of model shows that each personality trait leads to distinct resource development processes. The right part of model shows a double-edged sword effect of each type of resource development that leads to both work-family conflict and work-family enrichment. Human capital development, social capital development, and altruistic capital development are proposed to transmit the effect of three personality traits onto work-family conflict and work-family enrichment.

Accordingly, this dissertation offers several contributions. First, by proposing that conscientiousness, extraversion, and agreeableness influence work-family conflict and enrichment indirectly through their effects on relevant resource development, this dissertation contributes to an increased array of predictors of work-family outcomes, as well a clearer perspective in terms of how personality traits are linked with work-family conflict and enrichment. Second, by challenging the previous assumption that individuals react to work and family demands (Bakker et al., 2008; Butler et al., 2005; Thompson & Prottas, 2006; Voydanoff, 2004), this dissertation advances the current understanding of the link between personality and work-family conflict and enrichment by applying COR theory but from a motivational/intentional perspective. Specifically, resource development processes (conceptualized as human capital development, social capital development, and altruistic capital development) help explain how people are

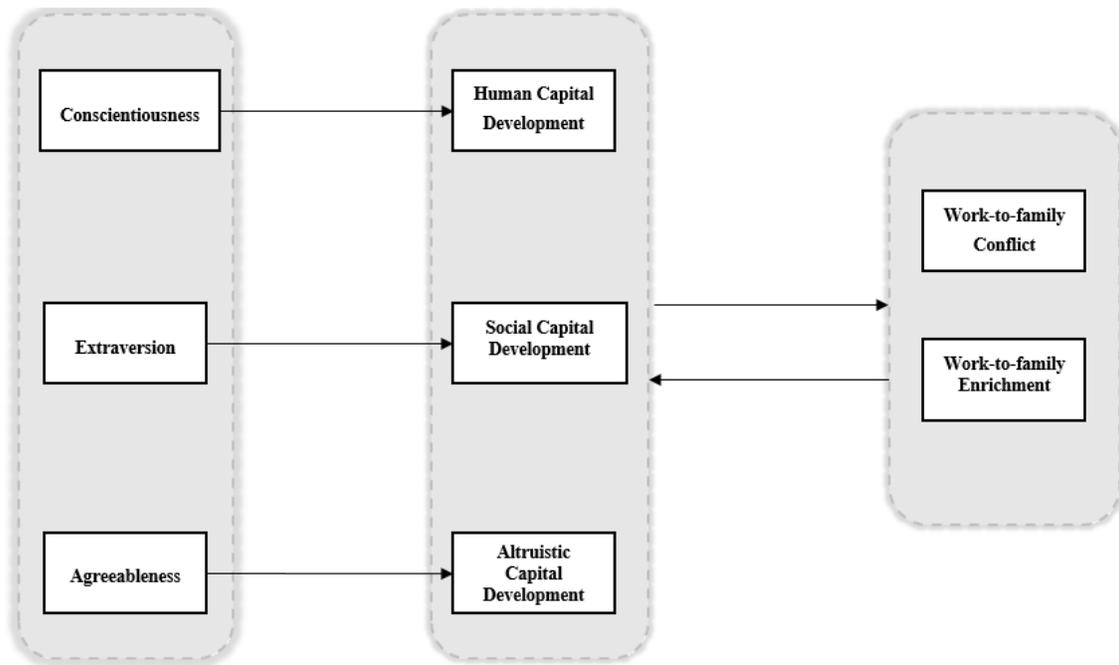
intentional in directing investment in resources. This perspective reflects the fundamental contribution of this study, as it moves beyond previous work-family research that has treated individuals as passive, or at least, reactive, beings.



**Figure 1. Hypothesized Model**

Third, whereas prior research tended to study work-family conflict and work-family enrichment together without strong theoretical underpinnings, this dissertation integrates the two distinct research streams through exploring the dual effect of resource investment on both work-family conflict and enrichment. This is a notable void in the literature as it is frequently claimed that resource investment leads to resource gain yet there is a less clear idea of whether the potential costs and benefits of resource

investment exist simultaneously as applied to the work-family literature (cf. Halbesleben & Wheeler, 2015). Lastly, this dissertation answers the numerous calls for a more sophisticated design for work-family studies (Casper et al., 2007; Ilies et al., 2007; Greenhaus, 2008; Llorens, Schaufeli, Bakker, & Salanova, 2007; Örtqvist & Wincent, 2010). As an improvement upon prior work, the methodological advantage of this dissertation is to examine the resource-based process model using both a time-lag and longitudinal design. The longitudinal design not only helps to capture the issue of causality but also investigates how resource investment cycles occur so that it captures the dynamic and complex processes of resource investment, which is governed by individual differences in personality traits. Examining such resource spirals has important practical implications, as it helps employees to understand how to avoid the cost of resource investment to become loss cycles (downward spiral) over time and how to turn the benefit of resource investment into a positive resource spiral. Figure 2 displays a resource based reciprocal model showing both causal and reversed causal relations among personality, resource development, and work-family conflict and enrichment.



**Figure 2. A Resource-Based Longitudinal Model Showing Both Causal and Reversed Causal Relations among Personality, Resource Development, and Work-family Outcomes**

This dissertation unfolds as follows. Chapter 2 provides a review of COR theory and the work-family literature, followed by clarification of the meaning of resource investment. Specific hypotheses are then presented. Chapter 3 contains the method and research design proposed for testing the hypotheses. The results are then presented. This includes the results for the time-lag design, starting with confirmatory factor analysis and continuing with the other hypotheses followed by the findings for longitudinal design with four competing longitudinal mediation models. Chapter 4 provides a discussion about how the current study changes what we know about the relationship

between personality traits and work-family outcomes, and its potential impact on theory and practice.

## CHAPTER II

### LITERATURE REVIEW

#### **Personality and Work-Family Conflict through a Resource Scarcity Perspective**

The origination of COR theory was to understand the process leading to stress and burnout. Stress is the reaction to the environment where there is the loss of resources; burnout represents a type of resource drain when resource replenishment (e.g., time, energy) does not meet expectations (Hobfoll, 1988, 1989; Lee & Ashforth, 1996). Because work-family conflict has been viewed as a type of stressor (interrole conflict or “crossover stress”) (Frone, 2003; Kahn et al., 1964), COR theory has been increasingly applied to work-family literature to explain work-family conflict (Bellavia & Frone, 2009). This line of thinking provides a key assumption, that there is only a limited and fixed amount of resources (Goode, 1960). Thus, the more time and energy one spends in the performance of work (family) roles, the lower level of energy and time one can allocate to take care of duties in the other domain.

In particular, ten Brummelhuis and Bakker (2012) suggested that work-family conflict is a resource loss process because of the depletion of time and energy. This is akin to what Edwards and Rothbard (2000) referred to as *resource drain* in their conceptual work describing work and family constructs—the “transfer of finite personal resources, such as time, attention, and energy, from one domain to another” (p. 181). This perspective is also relevant to what Greenhaus and Beutell (1985) called time-based conflict, meaning that the time or attention transferred from one domain (work) to meet

the demands arising in the other domain (family) often causes incompatible role demands between work and family domains.

One core idea of COR theory is that individuals starting with more resources are better positioned for buffering the negative effect of resource drain (e.g., work-family conflict) and are more likely to leverage proactive coping mechanisms; individuals with fewer resources are more likely to be affected by the situation of resource drain (Demerouti et al., 2004; Hobfoll, 2001; Mäkikangas, Bakker, Aunola, & Demerouti, 2010; Whitman, Halbesleben, & Holmes, 2014). This logic supports the integration of the personality to the work-family literature, as it suggests that personality are biologically-based properties of an individual, which determine one's energy levels and more specifically, motivation levels. Therefore, when studying work-family outcomes through a resource lens, the person matters based on their personality "constitution." Furthermore, both COR theory and personality theory suggest that personality affects behavioral patterns such as resource acquisition (Michel, Clark, & Jaramillo, 2011; Wille, De Fruyt, & Feys, 2013).

Empirically, one quantitative review of the literature (Michel et al., 2011) found that the corrected mean effect size between conscientiousness and work-family conflict is  $-.22$  ( $k = 20$ ,  $N = 6,924$ ). The rationale for the proposed relationship centered on the notion that individuals with this characteristic tend to effectively manage their time, task, and even conflicts that arise across different life domains (Bruck & Allen, 2003; Wayne et al., 2004). Highly conscientious individuals are driven to be successful for whatever they do, so they are more likely to be able to successfully balance their work and family

roles and regulate their resources to improve their capability of coping with work and family demands. In regards to extraversion, the meta-analytic corrected effect size between extraversion and work-family conflict is  $-.11$  ( $k = 17, N = 8,094$ ). The general argument is that those high in extraversion tend to seek out more proactive approaches to manage competing demands between work and family roles and more social resources to buffer the negative effect of work-family conflict. Lastly, agreeableness is thought to be negatively related to work-family conflict due to its link to conflict avoidance. This was supported in the meta-analysis ( $\rho = -.18, k = 13, N = 5,309$ ; Michel et al., 2011).

As COR theory explicitly suggests that the relationship between personality factors and work-family conflict need to be further examined by understanding the underlying resource-relevant processes, the main purpose of this dissertation is to empirically test such potential indirect and divergent effects (which will be described in details in the section below). In addition, it is important to provide a more complete model of the effect of personality on work-family outcomes by also examining the effects on work-family enrichment. This is discussed next.

### **Personality and Work-Family Enrichment through a Resource Accumulation Perspective**

With the rise of positive psychology, recent research accounting for the positive side of work-family interface, such as work-family enrichment, has challenged the resource scarcity assumption of work-family conflict. Drawing on a resource accumulation perspective, this research stream considers that an individual's resource reservoir can be expanded, through acquiring resources so as to facilitate one's

performance in multiple roles (Barnett, 1988; Frone, 2003; Grzywacz, 2002). Greenhaus and Powell's (2006) theoretical model of work-family enrichment provides the initial understanding of how work-family enrichment occurs. Specifically, their work suggested that resources gained in one domain (work) can be applied to sustain and reinforce one's positive experience in the other domain (family). Five types of resources that may be acquired in one domain (work) can be applied to the other domain (family) to enable effectiveness: skills and perspectives (e.g., task-related cognitive and interpersonal skills), psychological and physical resources (e.g. self-efficacy, self-esteem), social-capital resources (e.g., networking, information), flexibility (e.g., flexible work arrangements), and material resources (e.g., money, gifts). These resources enable improved quality of the other domain through two paths. The first is the instrumental path, which means that resources gained at work (family) can be directly transferred to the family (work) side. The second is the affective path, which means that resources gained at work (family) can boost one's positive affect at work and in turn indirectly contribute to one's high performance and positive affect at home (work) (Greenhaus & Powell, 2006; Wayne, 2009).

Based on Greenhaus and Powell's (2006) conceptual foundation for work-family enrichment construct, Carlson et al. (2006) developed a multi-dimensional measure of work-to-family enrichment with three forms—*development*, which occurs when engagement in the work role helps acquire and promote skills, perspectives, and knowledge that make an individual a better family member; *affect*, which occurs when

engagement in the work role results in a positive emotional state that makes an individual a better family member; *capital*, which occurs when engagement in the work role promotes psychosocial resources (e.g., confidence) that helps an individual be a better family member. It is worth noting that there are many similar yet distinct constructs capturing the positive side of the work-family experience, such as positive spillover (Crouter, 1984), facilitation (Grzywacz, 2002), and balance (Carlson et al., 2009). Work-family enrichment is fundamentally different from these constructs because it emphasizes not only mobility of resources — i.e., resources can be transferred from one role to another role—but also the utilization of resources— i.e., resources transition from the originating domain to receiving domain ultimately leads to the improved performance or affect in the receiving domain.

This is relevant to the present study because as discussed in the next section, resource investment principle of COR theory suggests that resource developed at work are often reinvested in the family domain in order to achieve optimal human functioning or overall resource growth in one’s two interrelated microsystems—work and family. Indeed, Sieber (1974) suggested that resources acquired in one role can be reinvested in other roles so that a positive or enrichment effect can be expected through role accumulation. Likewise, Marks’ (1977) expansionist approach on roles suggested that engagement in one role may produce increased energy that can be applied to the other role.

Personality factors are likely to serve as a key enabler of work-family enrichment because personality represents one’s “biological based properties” (McCrae & Costa,

2013, p.18). And people are born with varying capacity for the “transfer of positive mood, enhancement of self-esteem and confidence, support received, and transfer of skills and behaviors from one domain to another” (Wayne et al., 2004, p.111). Previous research has linked conscientiousness with work-family enrichment because conscientious individuals have high levels of achievement motivation — they tend to effectively manage time and energy at work, and so they are likely to apply efficiency gains to the family domain (Michel et al., 2011). Task achievement in the work domain also boosts positive mood, which may contribute to positive affect at home (Wayne et al., 2004). Extroverts tend to experience more energy at work (Diener & Lucas, 1999), and those excess personal resources are likely to be reinvested in the family domain to improve the quality of family life. Much less is known about the connection between agreeableness and work-family enrichment. The direct linkage occurs possibly because agreeableness has an affective component, and people high in agreeableness are likely to express concern and support, such as engaging in nonwork-related conversation at work to show personal consideration toward others. Such expression of concern can be applied to the home domain to improve role performance in the family domain (Zellars & Perrewé, 2001).

Empirically, Michel et al.’s (2011) meta-analysis found that although three personality traits are positively related to work-family enrichment, in general these meta-analytic correlations are modest. Specifically, the corrected mean effect size for extraversion and work-family enrichment is .30 ( $k = 3$ ,  $N = 4,585$ ), for agreeableness is .21 ( $k = 2$ ,  $N = 2,510$ ), and for conscientiousness is .14 ( $k = 3$ ,  $N = 2,646$ ). Because the

number of studies ( $k$ ) is small, the sampling error cannot be accurately corrected, suggesting that the results of meta-analysis were inconclusive (see Hunter & Schmidt, 2004 and Schmidt & Oh, 2013 for more details). To explain the moderate effect sizes for the role of personality on work-family enrichment, it is possible that personality is not directly related to work-family enrichment. Considering that work-family enrichment captures how resources gained in one domain can be applied to the other domain so as to enable effectiveness (Greenhaus & Powell, 2006), it makes theoretical sense to study a model in which work-family enrichment is determined largely by how one directs investment in resources in the work domain which, in turn, are influenced by one's personality types. Thus, this dissertation focuses on indirect effects of personality types on work-family enrichment, with an emphasis on the differential ways in which resources are being directed.

An emergent field of research has aimed to reconcile the separate research streams of work-family conflict and work-family enrichment (Chen & Powell, 2012; Odle-Dusseau, Britt, & Greene-Shortridge, 2012). This body of research suggests that work-family conflict and work-family enrichment are orthogonal and also can occur in both directions—i.e., work-to-family and family-to-work (Frone, 2003; Wayne et al., 2004). This dissertation focuses on the work-to-family direction for two reasons. First, evidence suggests that the two directions of conflict (work-to-family conflict and family-to-work conflict) and enrichment (work-to-family enrichment and family-to-work enrichment) are distinct and may have different nomological networks (antecedents and consequences) (e.g., Frone, Russell, & Cooper, 1992; Grzywacz & Bass, 2003;

Grzywacz & Marks, 2000; Wayne et al., 2004). Second, prior evidence suggests that phenomena in the work-family direction are more likely to be influenced by factors originating from the work domain (Grzywacz & Bass, 2003; Grzywacz & Butler, 2005; Wayne, Casper, Matthews, & Allen, 2013; Mesmer-Magnus & Viswesvaran, 2006; Wang & Walumbwa, 2007). The proximal predictors of work-family outcomes being examined in this dissertation (i.e., the mediators of interest) are characterized as resource development, which are embedded within a work context. Due to the fact that the work domain is the originator of resource generation and development, it is theoretically appropriate to study the work-to-family direction rather than the opposite direction.

### **Meaning of Resources**

In this dissertation, a resource-based process model is hypothesized to distinguish among resource-relevant mechanisms, predictors (three personality traits), and consequences (work-family conflict and work-family enrichment). To understand this resource-based model, one must first understand the meaning of resources. Although resource is a core construct in the COR theory, there is less agreement about the definition of resource itself. One commonly used definition refers to resources as “objects, personal characteristics, conditions, or energies that are valued in their own right, or that are valued because they act as conduits to the achievement or protection of valued resources” (Hobfoll, 2001, p.339).

Although commonly used, this definition of resource might be problematic for two reasons. First, concern remains as this definition captures the categorization of resources rather than the definition of resources itself (Halbesleben et al., 2014). Second,

and as it pertains to vagueness of the definition, individuals may place value on subjects differently (Halbesleben et al., 2014; Morelli & Cunningham, 2012). Insights can be provided from other literature. For instance, research on coping suggests that different resources may be more or less valuable when used to cope with specific stress-inducing events (Luria & Torjman, 2009). Also, individuals may appraise stressors differently. Stressors might be viewed as challenge-oriented, which promotes individuals' professional experience; stressors can also be interpreted as harmful, as hindrance stressors can constrain people's personal and professional development (Boswell, Olson-Buchanan, & LePine, 2004; Podsakoff, LePine, & LePine, 2007). These bodies of work suggest that (1) individuals have a different understanding of what a resource is and (2) resources are useful as they help individuals to meet their needs or goals.

Halbesleben et al. (2014) recommended adopting a goal-directed definition of resources—i.e., resources are subjects that are perceived by individuals to help attain goals. This definition is used in the current dissertation because it is consistent with the core idea of COR theory as a motivational theory—the central tenet of COR theory is that people are motivated to obtain, protect, and foster resources while avoiding resource loss. Sharing a theoretical background with many other motivational theories (e.g., Elliot, 1997, 1999; Kanfer, 1990; Locke & Latham, 1990), COR theory suggests that resources can be motivating as they facilitate goal attainment, whereas the lack of resources can be demotivating and lead to poor well-being (Katzell & Thompson, 1990). Notably, it is important to clarify that these goals represent specific, rational, and purposeful objectives.

In light of adopting the aforementioned definition of resources, it is important to examine its nomological framework. As Halbesleben et al. (2014) pointed out, a common approach to measure resources is to measure a specific antecedent of resource that is relevant to the research question (e.g., personality traits). This approach helps create restrictions in order to avoid measuring any constructs that might be labeled as resources. The second approach is to measure *outcomes* of resource losses or gains because the theory proposes that people are motivated to gain resources and avoid resource loss (e.g., Halbesleben et al., 2013; Janssen, Lam, & Huang, 2010; Lam, Huang, & Janssen, 2010). For instance, previous studies have used perceived workload (Demerouti et al., 2004), organizational inducement and psychological resilience (Shin, Taylor, & Seo, 2012) to capture resource losses while using emotional exhaustion (Ito & Brotheridge, 2003) to capture the *outcome* of resource losses. Prior research has also conceptualized state engagement as the *outcome* of resource gains (Gorgievski & Hobfoll, 2008; Kuhnel et al., 2012) because employees who acquire a significant amount of work-related resources tend to do their work with feelings of energy and enthusiasm (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Schaufeli & Salanova, 2007). Research has also conceptualized pride as a resource gain—it represents “both psychological and emotional gains that may occur as a result of feeling trusted” (Baer, Dhensa-Kahlon, Colquitt, Rodell, Outlaw, & Long, 2015, p.11).

Driven by the research question and to fit in with the current research context, work-family conflict is used to capture the outcome of resource losses, as the construct represents a loss in personal resources (physical, psychological, and affective) due to

incompatible demands in the work and family domain (e.g., ten Brummelhuis & Bakker, 2012). Work-family enrichment is used to capture the outcome of resource gains because the construct emphasizes gains across roles (Maertz & Boyar, 2011). This is similar to the Resource–Gain–Development perspective, which suggests that development gains, affective gains, and capital gains and their transition from one role to the other help improve the overall functioning of one’s system in which they are embedded, including family and organizations (Wayne et al., 2007). This operationalization method is consistent with previous studies that used work-family conflict and enrichment to assess the outcomes of resource losses and gains (e.g., Odle-Dusseau, Britt, & Greene-Shortridge, 2012; Voydanoff, 2004).

### **Resource Investment Principle**

Given what is mentioned above, we know that personality traits as “key resources” affect the way people allocate and gain other resources. Yet a critical question that arises here is: *how* do individuals with different traits develop or expand their resource reservoir in order to gain additional resources? COR theory provides some insights to answer this question of *how*. A key principle of COR theory is related to resource investment, which suggests that people gain resources through investing in current resources (Hobfoll, 2001). This principle is consistent with sentiments by Westmand, Hobfoll, Chen, Davidson, and Laski (2004), where they considered that some resources can be used as means to conserve other resources. For instance, as conscientious individuals develop task-relevant skills and knowledge at work, energy

and efforts are often invested in human capital development to help them to do the job well.

In the section below, the resource investment principle is introduced to explain resource development as processes by which three personality traits transmit their effects onto work-family outcomes. In doing so, this dissertation takes a step forward in delineating resource investment, emphasizing the component of people's attentional effort. Notably, even for the handful of studies using a resource investment lens, much attention has been paid to resource gains as a result of resource investment, yet less attention has been paid to the fact that resource investment is often times associated with spending resources (see Ng & Feldman, 2012 for an exception). That is, the current literature has looked extensively at the benefits associated with resource investment but understudied the cost associated with resource investment. To advance current understanding, it is important to acknowledge that resource development, in particular through investing in current resources, should exert a double-edged sword effect, leading to both resource gains and losses. For this reason, this dissertation provides a theoretical link between resource development and both work-family conflict and work-family enrichment. In doing so, it provides a more complete picture by highlighting the potential costs of resource investment and the resulting work-family conflict, in addition to the potential benefits of resource investment and the resulting work-family enrichment.

## **Meaning of Resource Investment**

COR theory highlights the importance of resource investment—individuals must invest in resources to gain additional resources (Hobfoll, 2001). Yet a theoretical basis for making this claim clear is lacking, not to mention its potential application as a lens from which to view the work-family literature. Fortunately, research on coping strategies provides some insight in terms of the nature of resource investment, which suggests that resource investment involves one’s intentional effort. More specifically, Hobfoll (1989) noted that “people roughly judge their potential losses, determine what they stand to lose by expending other resources, and analyze the likelihood of succeeding or offsetting losses if they choose to employ a given coping strategy” (p. 519).

Therefore, conceptually, resource investment is inherently intentional and aims to maximize one’s overall resource growth so as to help people attain their goals. This definition is consistent with Hobfoll’s statements in COR theory — “the value of resources stems from their being desired goal objects, such as in the case of love, money, and home, and from their being instrumental in the acquisition or maintenance of desired resources” (Hobfoll, 2001, p.349). The aforementioned conceptualization clarifies two critical features of resource investment. First, although resource investment involves both spending and gaining resources, individuals tend to ensure “their overall balance of debits and credits to maximize those resources that are believed to most effectively contribute to their overall growth” (Wright & Bonett, 2007, p.146). For instance, some individuals may invest in attention, effort, and focus to maximize their human capital resources in order to achieve their task-relevant goals; others may be motivated to

maximize their social capital in order to attain their goal of receiving highly rewarding resources (e.g., reputation and social status). Indeed, the perspective of “achieving an overall balance of debits and credits” has been confirmed in the literature regarding the utilitarian approach of role investment, which suggests the importance of role rewards and costs in determining levels of role investment in work or family role (Lobel, 1991). That is, individuals invest in resources in a way that provide a favorable balance of rewards to costs.

The second assumption is that individuals make investment decisions based on their own perceptions about investment instrumentality (the potential of resource gain) (Halbesleben & Wheeler, 2014). The varying understandings of the best strategy to invest in is documented in the human resource development literature, which suggests that people consider “return on investment” when they make their own investment decisions to grow overall resources (Phillips, 2003). Goal attainment can be viewed as an indicator of return on investment. In other words, individuals work with different professional goals in mind; individuals should be selective in the way they invest in resources in order to attain their professional goals. As such, they can reserve their resources in a sustainable and wise way. Although the core component of resource investment—being strategic and instrumental—has not been sufficiently addressed in the work-family literature, other areas of work-family literature have confirmed such a notion. For instance, research on boundary management strategies suggests that individuals can range in the extent to which they integrate versus segment their work and

family lives so that they can preserve personal well-being (e.g., Ashforth, Kreiner, & Fugate, 2000; Kossek & Ozeki, 1999; Olson-Buchanan & Boswell, 2006).

In order to better understand what resource investment is, it is also important to distinguish resource investment from other well-known resource-relevant variables in the work-family literature. First, resource investment is different from resource signals — “a resource [that] is available and/or worth pursuing” (Halbesleben et al., 2014, p.14). Unlike resource signals dealing with the symbolic value of resources and the possibility that resources can be used in the future (e.g., the availability or the announcement of implementation of work-family policies; Kelly et al., 2008; Perry-Smith & Blume, 2000), resource investment emphasizes individuals’ actions of trading current resources to gain more resources. Second, resource investment is different from perceptions of resource support such as social support—i.e., people’s belief that they are loved, valued, and cared by others and that they are embedded in a social network of communication and mutual obligations (Cobb, 1976). Resource support deals with an individual’s perceptions rather than actions. It considers neither one’s resource relative-importance appraisal nor the instrumentality in the acquisition of desired resources.

Accordingly, the resource investment principle is used to conceptualize three sets of resource development. The first construct under investigation is human capital development, which is referred to as attending a wide range of activities that promote the professional development of individuals (London, 1989). This definition incorporates the perceived instrumentality of investing in human capital development for accomplishing tasks. That is, individuals develop skills and knowledge, and get access to information

on the job in order to attain their professional goals of performing the job well. The second construct under investigation is social capital development. Social capital development highlights individuals' purposive/instrumental actions toward leveraging social resources embedded in the work context (Lin et al., 2001). Individuals are likely to invest in developing social capital so as to achieve better status through getting more information, connecting with influential people, and gaining support to make things happen at work (Brass, 2001; Burt, 1992; Coleman, 1988; Thompson, 2005). The third construct under investigation is altruistic capital development or helping. Altruistic capital development may serve as a key strategy to prevent the potential discomfort or problems with others; investment in helping may also serve as a means to facilitate interpersonal relationships with others (Bolino, Klotz, Turnley, & Harvey, 2013; Halbesleben & Bowler, 2007; Halbesleben & Wheeler, 2011). It is worth noting that these core constructs are measured by identifying resources that help individuals to satisfy their personal motives (e.g., Halbesleben et al., 2014) and then by asking the extent to which individuals strive to develop these resources. This represents one important contribution because it not only clarifies the self-regulatory nature of resource development but also establishes the construct validity of resource development. In other words, measures used to measure these constructs can accurately assess the underlying construct that it purports to.

## **The Differential Links between Three Types of Personality and Resource Development**

The core idea of COR is that people are motivated to conserve current resources and acquire new resources. The prerequisite of COR theory is that the world is deemed as innately threatening and demanding so people need a broad set of *personal strengths* and *social attachment* in order to survive (Greenberg, Pyszczynski, & Solomon, 1986; Hobfoll, 2001). Specifically, Hobfoll's (1989, 2001) work listed traits and energy as resources that build *personal strength*. Hobfoll's (2001) work also viewed motivation ("motivation to get things done" and "accomplishing my goals") as energy resources. Based on COR theory, Witt and Carlson (2006) noted that motivation as an energy resource is invested to expend more energy, to decide the level of effort to expend, and to persist at that level of effort. In regards to resources that are relevant to *social attachment*, Hobfoll's (2001) work specifically listed resources such as "feeling valuable to others" and "feeling that I know who I am" in a social context.

The reason for the differential links between three personality traits and relevant resource development through the COR theory is explained based on resources that make up one's "personal strength" and "social attachment." First, termed as a personal resource in Hobfoll's (2001) work, personality traits, which reflects one's biological base, determine the amount of energy the individual has available to expand and influence one's activation of their internal resources (Zuckerman, 1995). That is, individuals with different traits are likely to invest their motivational resources to acquire resources at work differently. For instance, conscientious individuals invest in

task motivation at work—they direct their energy and exert lots of on-task effort to accomplish tasks at work (Perry et al., 2007). Extroverts direct their energy and effort toward obtaining power and dominance at work. Agreeable individuals are highly motivated to obtain acceptance in personal relationships and to get along with others. Also, a socioanalytic perspective suggests that people do vary on *personal strengths*, consistent with one's personality. Differences in personality suggests different patterns in term of people's thoughts, feelings, and actions. Thus, people may prefer to develop resources at work that are in accordance with their personality, and dislike devoting effort and attention to resource development activities that are discordant with their personality (Snyder & Ickes, 1985). Likewise, McCrae and Costa's (1996) work argues that people's patterns of behaviors should be consistent with their personality traits (characteristic adaptations), and that people represent themselves in a selective way, shaped by their own personality traits (selective perception). Accordingly, the specific ways in which traits are expressed are likely to influence further development of resources. Simply put, personality traits affect the specific ways in which one engages in resource development at work.

Second, as to the aspect of *social attachment*, according to COR theory, identity—“feeling that I know who I am” and reputation—“feeling valuable to others” represents critical resources for individuals (Hobfoll, 2001). Resources being developed at work (e.g., job performance, status, harmonious relationships) “have symbolic value in that they help to define for people who they are”, which is reflective of individuals' occupational identities and professional goals (Hobfoll, 1989, p.517). Resources being

developed at work also help define how people want others to believe who they are, which is reflective of individuals' reputation. This aspect is also consistent with Hogan and Shelton's (1998) definition of personality. In particular, personality can be defined in two ways. Internally, personality consists of people's needs for approval (who they are) and externally, personality creates one's reputation—positive evaluation by others (how people want others to believe who they are).

For aforementioned reasons, people with different personalities may choose to invest in resources differently to develop their resources and to persist at work. Although the notion of resource *investment* has not been much studied, the literature has long argued that a person's identification with a work or family role is related to his or her investment in that role (Lobel, 1991). Thus, resource development is contingent upon one's characterization of his or her personality. In the section below, specific hypotheses linking personality traits and relevant resource development are discussed in detail.

### **Conscientiousness and Human Capital Development**

Conscientiousness is characterized as being dependable, reliable, persistent, prepared, and achievement oriented (McCrae & John, 1992). Prior research found that among the Big Five personalities, conscientiousness is a consistent determinant of overall job performance rating, task performance, and career success across all jobs (Barrick et al., 2001; Hertz & Donovan, 2000; Ng, Eby, Sorensen, & Feldman, 2005). It is hardly surprising to view conscientiousness as “work-related motivation” (Li et al., 2013, p.354). For instance, Judge and Ilies's (2002) meta-analysis found that conscientiousness is a strong and consistent predictor across three performance specific

motivations—goal setting, expectancy, and self-efficacy. Barrick, Stewart, and Piotrowski (2002) found that conscientious individuals tend to have better job performance because they are task-oriented and have a strong desire to accomplish their task-related goals (accomplishment striving).

COR theory provides theoretical reasons regarding the link between conscientiousness and human capital development. Generally speaking, in order to become more competent in performing present and future job tasks and responsibilities, conscientious individuals tend to invest in motivation resources along with other personal resources (e.g., energy, efforts, attention, time, focus) to develop human capital resources (e.g., knowledges, skills, abilities) (Ng & Feldman, 2010; Ployhart et al., 2014). They do so through engaging in a wide range of activities such as (a) career planning activities (e.g., setting and committing to their career goals); (b) personal-focused learning that individuals may engage in for handling future tasks and responsibilities; (c) job-related learning and training; and (d) work-based development (Birdi et al., 1997; Colquitt et al., 2000; Hurtz & Williams, 2009; Major, Turner, & Fletcher, 2006). In the section below, I provide specific reasons of how conscientiousness will lead to greater human capital development.

First, driven to be successful in their jobs and careers (Judge, Higgins, Thoresen, & Barrick, 1999; McCrae & Costa, 1999; Seibert & Kraimer, 2001), conscientious individuals are likely to set goals to attend training courses and development programs (e.g., specify competencies and knowledge to be developed and specify training and development method). They also tend to be highly committed to these goals. Prior

research has suggested that conscientiousness is significantly related to goal setting and goal commitment (Barrick & Mount, 1993; Colquitt & Simmering, 1998).

Second, conscientious individuals are likely to exert and regulate their effort in striving for training and development goals (Burke & Hutchins, 2007). Bidjerano and Dai (2007) found that effort regulation mediated the relationship between conscientiousness and their desired outcomes (higher grade point averages), suggesting that those who were higher in conscientiousness were better at regulating their effort in ways that had the greatest impact on the outcome they strive for.

Third, highly conscientious individuals are likely to seek feedback not only on how they are doing on present job tasks but also on their future development plans with their managers. In doing so, they can prepare themselves to move into future roles, which requires to deal with a broader set of tasks and responsibilities. Empirical evidence supported this argument. Colquitt and Simmering (1998) found that conscientiousness is positively related to learning motivation—motivation resources that are necessary for employee development to occur—both initially and after performance feedback was given. Conscientiousness has also been associated with career planning, which contributes to the acquisition of human capital resources (Ng et al., 2005).

*Hypothesis 1: Conscientiousness will be positively related to accomplishing human capital development.*

### **Extraversion and Social Capital Development**

Extroverts are described as being sociable, dominant, excitement-seeking, talkative, and cheerful. Extraversion primarily consists of two components—ambition

and sociability (Barrick & Mount, 1991; Barrick et al., 2001; Costa & McCrae, 1992). Ashton and Lee (2001) interpreted extraversion/surgency as active engagement with a social-related endeavor or viewed extraversion as “sociability.” Yet research on the socioanalytic perspective of personalities suggests that the primary essence of extraversion is ambition or reward sensitivity, rather than sociability (Hogan et al., 1994; Lucas et al., 2000). Ambition or reward sensitivity can be described as “the degree of impact, influence, and energy that a person displays. High scores seem socially self-confident, leaderlike, competitive, and energetic” (Hogan & Shelton, 1998, p.137). This line of thinking argues that the social environment provides a context for extroverts to get status and rewards, and that sociability serves as a means to achieve the desired outcomes (Duffy & Chartrand, 2015; Hogan, Curphy, & Hogan, 1995). Simply speaking, extroverts are motivated by getting ahead or status striving (Barrick et al., 2013; Hogan, 1996). For example, research found that extroverts tend to handle the job effectively when the job entails a large competitive social component related to influencing or leading others (sales, managers) (Barrick & Mount, 1991). Extraversion is also the strongest personality determinant of leader emergence (Judge, Bono, Ilies, & Gerhardt, 2002) and extroverts achieve desirable outcomes at work because they are high-status strivers (Barrick et al., 2002).

COR theory suggests that extroverts are likely to invest in their motivational resources to develop social capital so that they are better positioned to gain resources such as information, support from others, career sponsorship, managerial visibility, all of which would help them have greater impact at work (e.g., Bolino, Turnley, &

Bloodgood, 2002; Forret & Dougherty, 2001; Seibert et al., 2001; Tasselli et al., 2015; Thompson, 2005; Wanberg & Kammeyer, 2000). Indeed, the notion of developing social capital to acquire other resources has been highlighted. Specifically, in terms of utility of social capital resources, Coleman (1988) noted that social capital signifies resources such as information, influence, and solidarity, which makes “possible the achievement of certain ends that in its absence would not be possible” (p. S98). Moreover, Tasselli et al. (2015) posited that although social capital provides individuals with opportunities to achieve their purposive actions, it is those who have higher ambition that take advantage of these opportunities. Given their nature of being ambitious and reward sensitive, extroverts are likely to engage in social capital development as a means to achieve their desired outcomes (Depue & Collins, 1999; McAdams & Pals, 2006). Empirically, Wilkowski and Ferguson (2014) found that relationship building with others can be quite rewarding for extroverts as they implicitly associate people with rewards. Porter et al. (2003) found that in comparison to team members who are low in extraversion, members who are high in extraversion tend to exert more effort to use connections built with other team members in order to obtain resources that are needed to reach their goals.

Moreover, research also suggests that extroverts can strategically engage in social capital development—they can “strategically arrange relationships [with others] to maximize outcomes” (Tasselli et al., 2015, p.16). Although social capital resources include “multiple relationship ties of various strengths with other organizational members who can be of equal, lower or high formal status than the focal individual” (Bozionelos, 2003, p.43), extroverts are more likely to build relationships with their

upward contacts such as supervisors, mentors, and experienced people in the organization in order to get power and hierarchy success—“getting ahead” in their career (Blickle, Witzki, & Schneider, 2009; Bozionelos, 2003; Guthrie, Coate, & Schwoerer, 1998). In addition to direct access to information and crucial individuals, extroverts are able to indirectly access to social capital through acting as a “broker” who brings people together or keeps people apart (Fang, Landis, Zhang, Anderson, Shaw, & Kilduff, 2015). For instance, people who are high in extraversion may put more effort (with higher motivation) to develop diverse contacts within and across groups so as to influence decision makers’ strategies (Stevenson & Greenberg, 2000). In doing so, they are more likely to rely on connections to make things happen at work.

*Hypothesis 2: Extraversion will be positively related to social capital development.*

### **Agreeableness and Altruistic Capital Development**

Agreeableness is known as an interpersonal trait (Wiggins, 1991). Agreeable people are characterized as being sympathetic, considerate, altruistic, warm, and selfless (Barrick & Mount, 1991; Costa & McCrae, 1992; Judge & Ilies, 2002). Research shows that agreeable individuals tend to have prosocial motives, or a desire to benefit others. They tend to intrinsically place greater value on the welfare of others, behave in giving ways, and build harmonious relationships with others at work (e.g., Grant, 2007; Goldberg, 1992; Illis et al., 2006; McCrae & Costa, 1999; Rioux & Penner, 2001; Graziano, Hair, & Finch, 1997). Hogan and Hogan’s (1995) and Hough’s (1992, 1997)

work suggests that people who score high in agreeableness are tolerant, helpful, and not defensive, have strong motivation for belongingness, as well as easy to get along with.

Altruistic capital development (operationalized as helping behavior) is known as cooperative behavior that is noncontroversial. Helping behavior is an important form of organizational citizenship behavior, going beyond what is formally required at work but indirectly benefits organizations through maintenance of and enhancement to the organization's social system (Organ, 1997; Organ, Podsakoff, & MacKenzie, 2006). The initial conceptualization of helping behavior tended to address the idea that “voluntarily helping others with, or preventing the occurrence of, work related problems” (Podsakoff et al., 2000, p. 516; also see Organ, 1988, 1990). Recent literature suggests that helping can be proactive or reactive, with the former perspective emphasizing functional motives to engage in helping, and the latter perspective suggesting helping as a response to the needs of others (e.g., Bolino, Turnley, Gilstrap, & Suazo, 2010; Vigoda-Gadot, 2007). For instance, Spitzmuller and Van Dyne (2013) argue that helping can be based upon the “personal need satisfaction of the helper” and “reciprocity and compassion for others” (p.566), and in this way, helping is rewarding to the individual who is striving to get along.

Based upon this line of research and consistent with COR theory, there are two reasons regarding why greater agreeableness will lead to higher altruistic capital development. First, through making efforts to develop altruistic capital, highly agreeable individuals are more likely to maintain their psychological resources such as being prosocial, attaining their goal of getting along with others, and fulfilling their needs of

being affiliative with others (Barrick et al., 2002). In support of this, prior research suggests that highly agreeable individuals purposely seek to maintain social harmony and tend to engage more in teamwork through helping others (LePine, Piccolo, Jackson, Mathieu, & Saul, 2008).

Second, it is also likely for highly agreeable individuals to engage in helping as a way to prevent potential loss of resources such as discomfort and interpersonal conflict with others (Podsakoff et al., 2000). Prior research has suggested that people who are high in agreeableness are more likely to act as “peacemakers” (Valchev et al., 2014). In support of this, agreeableness in a group setting has been found to predict a reduced level of team conflict or within-group competition (Barrick, Stewart, Neubert, & Mount, 1998; Graziano, Hair, & Finch, 1997). LePine and Van Dyne (2001) showed a positive relationship between agreeableness and cooperative behavior (something similar to helping) and a negative relationship between agreeableness and voice. The reason behind the negative relationship between agreeableness and voice is that people who act as peacemakers would hesitate to express their own opinions as it can put pressure on others so as to cause potential relationship conflict. Also, there is considerable empirical evidence supporting the direct link between agreeableness and helping. Klein et al. (2004) found that agreeable team members are generally viewed to be helpful and serve as a benefit-provider. Kamdar and Van Dyne (2007) found that agreeable people help coworkers even if the quality of exchange relationship with coworkers is low.

*Hypothesis 3: Agreeableness will be positively related to altruistic capital development.*

## **The Links between Resource Development and Work-family Outcomes**

The resource investment principle of COR theory and Halbesleben et al.'s (2014) work suggest that despite resource development associating with the acquisition of new resources, resource development is often simultaneously associated with spending resources because people need to invest in current resources in order to gain. Stated differently, although resource investment appears to lead an experience with a positive net impact, the relevant literature discussed below suggests that the process of resource development may involve potential costs.

Spending resources (in aim to gain) can be depleting because doing so can put current resources at risk of loss or even lead to actual resource losses. This is consistent with Hobfoll's (1989) statement—"energy is expended, favors are used up, and self-esteem is risked, all in the service of offsetting loss of other potential loss. If the resources expended... outstrip the resultant benefits, the outcome... is likely to be negative" (p.518). Similar perspectives have been taken in other literature. For instance, the job search literature suggests that an individual may devote effort and energy to pursue a desired employment goal, yet the search may not always be successful (Hom, Mitchell, Lee, & Griffeth, 2012; Kanfer, Wanberg, & Kantrowitz, 2001). The literature on psychological contract breach reveals that an employee works hard and holds the belief of reciprocal obligation between the employee and his or her employer, but that the changing nature of the employment relationship may mean employees no longer receive job security or rewards in return for their hard work and loyalty (Morrison & Robinson, 1997; Rousseau 1989, 1995).

My argument positions resource development as a double-edged sword, leading to both resources gains and resource losses. Halbesleben and Bowler's (2007) work is used to support this dual effect of resource development. Specifically, they found that under situations involving significant amounts of investment of physical, emotional, and psychological resources (to meet job demands), individuals are likely to experience reduced levels of productivity (e.g., in role performance) but more engagement in social-related behavior (e.g., interpersonal organizational citizenship behaviors). This result not only suggests a dual effect of resource investment but also reflects the instrumentality of resource investment. That is, individuals withdraw from in-role performance to conserve their resources, but focus more on developing social capital resources because they perceive that doing so generates more gains.

Consistent with this, prior literature implicitly suggests that resource development may lead to both work-family conflict and work-family enrichment. On the one hand, work recovery research has explained the importance of after-work break activities or vacation in helping employees replenish their resources and offset the fatiguing experience at work (e.g., Saxbe, Repetti, & Graesch, 2011; Sonnentag, 2003). This body of research implicitly suggests that resources invested at work such as energy, attention or focus cannot be, at least immediately, reinvested in the family domain to address family obligations. This may cause work interference with family. On the other hand, the resource investment principle suggests that in order to enable effectiveness at home, individuals are likely to invest resources in a way that may outweigh the costs associated with spending resources at work (Hobfoll, 2001). This is akin to the resource-

gain-development (RGD) perspective (Wayne et al., 2007). The basic assumption of RGD is that individuals intend to develop resources toward positivity, which leads to the end product of improved system functioning—that is, “gains from one domain are applied, sustained, and reinforced in another [domain]” (Wayne et al., 2007, p.66). One example would be that people may spend time and energy to develop skills at work and work-family enrichment can occur through skills transferred from work to home. People may also devote effort to perform and the sense of achievement and positive emotion at work tends to make one become a good family member (Rothbard, 2001). Based on the theory and prior research, the section below provides the hypotheses linking resource development with both work-family conflict and enrichment through a resource investment lens.

### **Human Capital Development and Work-Family Conflict and Enrichment**

A key element of COR theory is that people must invest resources in order to gain resources as well as to protect against resource losses (Hobfoll, 2001). It is not hard to imagine that individuals are likely to be “trapped” to conserve their career benefits that they have already built through developing on-the-job skills, knowledges, and duties, as well as committed and invested in development activities that focus on improving one’s capability of handling future tasks and responsibilities. Human capital development predicts work-family conflict for two reasons. First, human capital development can be current (e.g., solve current job problems) or future-oriented (e.g., prepare employees to adapt to a new work trend) (Birdi et al., 1997; Brief & Motowidlo, 1986; Hertz & Williams 2009). A diverse set of development activities may require

considerable time and energy from individuals. For instance, employees might need to seek out opportunities for training courses, set up sub-learning-goals, and engage in self-monitoring/evaluation and feedback seeking so as to ensure that they are on the right track of accomplishing professional goals (George & Brief, 1992; Maurer, Mitchell & Barbeite, 2002). These practices demand a significant amount of attentional and temporal resources that would otherwise be spent on family life, which leads to work interference with family. Although there are not many studies linking human capital development with work-family conflict, one can expect that engagement in a diverse portfolio of employee development activities requires work involvement to a large extent, with the latter also being positive predictors of work-family conflict (Adams, King, & King, 1996).

Second, development activities may be change-oriented in nature and individuals are in a position to develop new competencies through continuous learning (Pasmore & Fagans, 1992). Proactivity researchers argue that human capital development such as career management can be a type of extra-role behavior—spending extra effort to redefine one's role in the organization through planning careers and developing skills (e.g., Crant, 2000). As the organizational change literature suggests, preparing oneself to participate in somewhat ongoing change can be stressful and fatiguing (e.g., Fugate, Kinicki, & Prussia, 2008; Rafferty & Griffin, 2006). Prior research also suggests that being proactive at work can lead to more work-family conflict (Bolino, Valcea, & Harvey, 2010; Grant & Ashford, 2008).

Despite the occurrence of work-family conflict being associated with development activities, development activities will also lead to a higher level of work-family enrichment. In fact, prior research suggests that the experience of conflict and enrichment can co-exist (Chen & Powell, 2012; Odle-Dusseau et al., 2012). There are several reasons why development activities should be positively related to work-family enrichment. First, work-family enrichment occurs when resources that are transited from work to family contribute to one's performance on the family side. The resource investment principle of COR theory suggests that employees will be motivated to expand skills and perspectives through development activities in an effort to maximize overall growth in both the work and family domain. Stated differently, knowledge and skills gained at work can be used or reinvested in the family domain such that goals of personal and professional development can be aligned to the family's goals and objectives. For instance, the skill of multi-tasking learned through employee development can be applied to the home domain so as to enable improved functioning at home. Empirically, studies found that development activities can expand one's knowledge base and contribute to improved skill level (Arthur, Bennett, Edens, & Bell, 2003). And, skill variety and improved skill levels both contribute to a greater level of work-family enrichment (e.g., Butler, Grzywacz, Bass, & Linney, 2005; Carlson et al., 2011; Grzywacz & Butler, 2005).

Second, development activities provide a necessary basis for people to nurture psychological resources such as self-esteem and self-confidence. Greenhaus and Powell (2006) suggested psychological resources developed in one's work can increase the

individuals' engagement in the family role so as to help them become a good family member. This is because self-worth makes employees feel a high level of overall well-being, which motivates them to deal with tasks in the family domain. Voydanoff (2004) argued that psychological rewards, such as self-confidence, associated with employee development opportunities "can be transmitted into family life via the psychological spillover of positive emotions and energy expansion," (p. 402) thereby enhancing work-family enrichment. Empirical results of the study further support this argument. Perry-Jenkins (1994) found that complex tasks on a job that require the use of numerous high-level skills are positively related to parenting behavior through increased level of self-esteem. Also, development activities, such as career exploration or planning and mastery of a new set of skills, often lead to one's career advancement. Material resources associated with career advancement provide a necessary basis for supporting one's family and enhance quality of family life (Greenhaus & Powell, 2006).

*Hypothesis 4: Human capital development will be positively related to (a) work-family conflict and (b) work-family enrichment.*

### **Social Capital Development and Work-Family Conflict and Enrichment**

COR theory supports the linkage between social capital development and work-family conflict. First, COR theory suggests that individuals who have greater access to social capital are less vulnerable to resource losses in the midst of work-family conflict. This is because resources such as social capital exert a stress-buffering effect. In other words, social capital resources can be leveraged to cope with work-family conflict. A large social capital resource base not only helps to boost an individual's internal ability

of dealing with stressful situations, but also shapes an individual's cognitive interpretation of a stressor; that is, work-family conflict is viewed as "less threatening" for individuals with high social capital (Carlson & Perrewe, 1999; Shin et al., 2012). Prior research shows that individuals with strong social resource reservoirs can cope with stressful situations through reevaluation of the situation, receiving support from workplace, and thinking positively instead of avoiding problems and being maladaptive (Kammeyer et al., 2009).

Second, resource investment notions of COR theory suggest that the deleterious effect of stress can be offset through gaining alternative resources (Hobfoll, 1989). And, Hobfoll (2001) suggested that "loss through interpersonal conflict at home can be partially compensated for, at least, by greater investment in work-related resources" (p.350). It is rational to expect that resource loss in the midst of work-family conflict can be compensated for through greater investment in social capital at work. That is, the negative effect of work-family conflict is attenuated for those who have a socially rewarding career. Substantial empirical research on workplace relationships and work-family conflict demonstrate support for the effect of social capital development on work-family conflict (e.g., Bernas & Major, 2000; Carlson & Perrewe, 1999; Thompson & Prottas, 2006). For instance, Major, Fletcher, Davis, and Germano (2008) found that an employee who has good quality relationships with influential others (e.g., supervisor) tend to have lower levels of work-family conflict. Also, Ciabattari (2007) found that individuals who develop a large network at work reported less work-family conflict.

COR theory can also be used to explain the linkage between social capital development and work-family enrichment. Given that resources should be considered holistically, resources gained at work can be reinvested in other areas such as the family domain (Halbesleben, 2009; Hobfoll, 2001; Wright & Bonett, 2007). In accordance with Greenhaus and Powell's (2006) theoretical foundation, social capital resources gained in work enable improved performance in the family domain either directly (i.e., instrumental path) or indirectly (i.e., the affective path). First, resources derived from social capital gains can help solve problems at home *directly* and thereby improve one's family life (Wayne et al., 2007). For example, individuals can call on for support from a network of colleagues and associates at work when she or he needs to gain admission for her or his child to a prestigious college.

Second, Greenhaus and Powell (2006) argued that enrichment occurs when involvement in work results in a positive emotional state that helps the individual be a better family member. COR theory suggests that social capital development can boost one's positive affect at work and in turn indirectly improve one's performance at home. Similarly, Fredrickson's broaden-and-build model of positive emotions (Fredrickson, 2001) suggests that positive feelings at work, when associated with social resources accumulation, helps broaden one's resources such as energetic, intellectual, and psychological capacities, which in turn heightens satisfaction in the family role (e.g., Carlson, Ferguson, Kacmar, Grzywacz, & Whitten, 2011; Carlson, Hunter, Ferguson, & Whitten, 2014; Wright & Bonett, 2007). Empirically, employees who engage in social capital development tend to experience higher levels of career satisfaction (affect gains)

and have greater impact (status gains) at work (Ng et al., 2005; Seibert et al., 2001). And, prior research has found that a positive affect at work can exhibit a positive spillover on one's affect at home (e.g., Ilies, Schwind, Wagner, Johnson, DeRue, & Ilgen, 2007); employees who have greater impact at work and are satisfied with their jobs also tend to feel satisfied in family or life roles, leading to work-family enrichment (e.g., Kossek, & Ozeki, 1998; Ilies, Wilson, & Wagner, 2009).

*Hypothesis 5: Social capital development will be (a) negatively related to work-family conflict and (b) positively related to work-family enrichment.*

### **Altruistic Capital Development and Work-Family Conflict and Enrichment**

In regards to the relationship between altruistic capital development and work-family conflict, the notion of resource investment of COR theory (Hobfoll, 2001) suggests that investment in one area can be associated with opportunity costs, which means that investing resources for one thing can make someone lose the potential gain from investing in other alternatives. Altruistic capital development has been known as a type of discretionary behavior, which requires individuals' extra time, effort, or energy in addition to the time they need to spend to complete their in-role performance (e.g., Motowidlo & Van Scotter, 1994). Indeed, Bolino et al., (2013) argued that like other types of extra-role performance behaviors, helping behavior may carry both professional costs and personal costs. In terms of the professional cost, Bergeron, Shipp, Rosen, and Furst (2013) found that time spent on OCB can be a cost to task performance.

Individuals engaging in altruistic capital development can also experience personal costs (e.g., job stress) (Organ & Ryan, 1995; Grant & Ashford, 2008). That is,

it is likely that helping will not only take away resources from other in-role tasks, but also lead to interrole conflict (e.g., work-family conflict). Helping leads to work-family conflict for two reasons. First, work engagement and proactivity research has argued that for individuals who behave proactively, they must first need to be absorbed by their work and then feel enthusiastic about further improvement in work situations, such as through helping others to fix work-related problems (Sonnentag, 2003). This suggests that individuals engaging in helping are more likely to be engrossed in the work role and will react negatively to factors that distract them away from work (e.g., family demands) (e.g., Halbesleben et al., 2009).

Second, as mentioned earlier, helping can be viewed as either proactive or reactive behavior depending upon whether the behavior is voluntary in its nature or a reaction to other's request (Spitzmuller & Van Dyne, 2013). Considering helping as proactive behavior, COR theory along with Bolino et al.'s (2010) work suggests that "the greater the amount of resources (e.g., time and physical/mental energy) employees expend when they behave proactively, the greater the amount of stress they are likely to experience" (p.330). Thus people engaging in helping may overload themselves at work because they not only need to fulfill commitments, duties, and responsibilities for in-role tasks but also need to do extra for helping others. In terms of reactive helping, recent literature suggests that helping can lose its discretionary quality because individuals may feel pressure to engage in such behaviors due to different reasons (Bolino et al., 2013). The pressure associated with reactive helping can make one feel stressed and depleted.

As such, strain for engaging altruistically is likely to have a crossover effect on the family domain.

Empirically, Halbesleben et al. (2009) found that interpersonal citizenship behavior, such as helping others, leads to more work-family conflict because helping “takes away from the stores of physical and psychological resources available for one’s family” (p.1454). Empirical studies have also linked other types of discretionary behavior with negative outcomes such as work-family conflict. For instance, Bolino and Turnley (2005) argued that individuals invest their resources (e.g., time, energy) into individual initiative, a type of discretionary behavior, at the expense of family time or obligations. Their results supported their argument.

In addition to the linkage between helping behavior and work-family conflict, altruistic capital development is also expected to be positively related to work-family enrichment: First, COR theory suggests that one may invest altruistically in order to achieve instrumental goals such as facilitate career success. That is, appearing to be a good citizen can lead to future career benefits. In fact, the citizenship literature has long considered that helping behavior is likely to be recognized by others and thus influence several key managerial decisions, such as positive managerial evaluation and reward allocation decisions (Allen & Rush, 1998; Johnson, Erez, Kiker, & Motowidlo, 2002; Van Dyne & Lepine, 1998). The social exchange perspective suggests that if helping is viewed as good behavior for both managers and organization, managers tend to evaluate employees who engage in interpersonal citizenship behavior or help favorably in a reciprocal way (e.g., Podsakoff et al., 2000). Empirically, Podsakoff, Whiting,

Podsakoff, and Blume's (2009) meta-analysis found that interpersonal citizenship behavior is positively related to job performance rating and reward allocation, with  $\rho = .63$  and  $.54$  respectively. Also, based on the Greenhaus and Powell's (2006) work, the rewards and positive managerial evaluation represent monetary incentives, which can be directly applied to improve the quality of family life (e.g., earning good money to satisfy the family's needs, such as choosing better child care services). Hence, work-family enrichment is likely to occur.

Second, helping at work provides an emotional benefit, which can lead to positive affect at home. That is, helping as a positive event and experience at work is likely to improve one's positive affect in the family domain. Literature on prosocial behavior has well documented the mood-enhancing benefit of helping (e.g., Dunn, Aknin, & Norton, 2008; Thoits & Hewitt, 2001). For instance, Sonnetag and Grant (2012) found that the effect of helping on positive affect does not have to be immediate, and the study shows the delayed impact of helping on affect at home. Also, Rothbard (2001) found that positive affect at work enabled improved functioning at home. The authors argued that individuals engaging in helping tended to show external focused attention rather than self-focused; outward focuses of attention were always associated with positive emotions. Being externally focused associated with positive emotions may make one respond positively to family members and hence enable effectiveness at home.

*Hypothesis 6: Altruistic capital development will be positively related to (a) work-family conflict and (b) work-family enrichment.*

### **Indirect Effects of Personality Traits on Work-Family Outcomes**

The underlying logic for indirect and divergent effects of personality traits on work-family outcomes through resource development is provided as follows. As mentioned earlier, the basic argument is that according to COR theory, personality traits serve as one's base level of energy and more specifically one's basic level of motivation, which regulates further resource development and subsequent resource gains resulting in work-family enrichment and resource losses resulting in work-family conflict (Halbesleben et al., 2014; Thoits, 1994). Stated somewhat differently, people appear to invest motivational resources (effort) along with other personal resources (time, attention, focus) in relevant development activities so as to attain their goals. The manner in which people develop their resources are in accordance with their personality types. This is because the way in which resource are being directed reflects who they are and how they want others to believe who they are (Hobfoll, 2001; Hogan & Shelton, 1998; McCrae & Costa, 1996;). Also, based on the aforementioned theoretic arguments for the links between (1) three personality traits and relevant resource development and (2) resource development and work-family conflict and work-family enrichment, supplemented by empirical findings, it can be expected that conscientiousness will have a positive indirect effect on work-family conflict/enrichment through its positive effect on human capital development. Extraversion will have a negative indirect effect on work-family conflict through its positive effect on social capital development. It will have a positive indirect effect on work-family enrichment through its positive effect on social capital development. Agreeableness will have a positive indirect effect on work-

family conflict/enrichment through its positive effect on altruistic capital development.

All the hypotheses are provided as follows:

*Hypothesis 7: The indirect effect of conscientiousness on work-family conflict and work-family enrichment will operate primarily through human capital development.*

*Hypothesis 8: The indirect effect of extraversion on work-family conflict and work-family enrichment will operate primarily through social capital development.*

*Hypothesis 9: The indirect effect of agreeableness on work-family conflict and work-family enrichment will operate primarily through altruistic capital development.*

## CHAPTER III

### METHODS

#### **Field Study**

##### **Participants and Procedures**

Participants were recruited via an online sampling pool based on Qualtrics, a company specializing in internet-based surveys. Previous research has suggested that Qualtrics represents a reliable source to identify and recruit participants online (e.g., Courtright, Gardner, Smith, McCormick, & Colbert, in press; Judge, Ilies, & Scott, 2006; Long, Bendersky, & Morrill, 2011). An advantage of drawing on this online pool run by Qualtrics is that it allows to prescreen participants based on specific criteria. It also helps to reach out to a relatively large number of participants that would be more representative of a broader population. Specifically, in order to be included in this study, participants had to meet the prescreen criteria of being full-time employees who are married or in a long-term relationship. The participants were employed in various industries. Despite the benefit of using this data collection procedure, it was difficult to estimate the overall response rate because Qualtrics is unable to provide the exact number of recruiting emails sent for the initial surveys.

This dissertation used both a time-lag design and longitudinal design. This design is consistent with Maertz and Boyar's (2010) "the levels approach" vs. "the episodes approach" to investigate the work-family literature. The levels approach is consistent with a between-subjects design, and the episodes approach is parallel to a within-subject

longitudinal design. Maertz and Boyar noted that “a levels approach is more efficient at discovering basic constructs and relationships in the nomological net ... to address the average person’s work-family conflict”, whereas “an episodes approach provides a more accurate theoretical reflection and better empirical strategy for understanding how employees... process work-family conflict” (p.71). In this dissertation, the time-lag design was used to test the hypothesized theoretical model emphasizing personality traits as the distal predictors and resource development as more proximal predictors that transmit the effect of personality traits onto work-family outcomes.

Although not formally hypothesized, the longitudinal design was utilized to repetitively track subjects’ work-family experience and resource development over time. The longitudinal design provides the benefit of clarifying the direction of causality and exploring the possibility of reciprocal effects between resource development and work-family outcomes. A reciprocal effect means that it is possible not only that differences in personality traits affect the manner in which one develops their resources at work and one’s subsequent work-family conflict/enrichment, as what have hypothesized, but also that work-family conflict/enrichment in turn affects resource development at work. This chain of effect may exist because “resource gains/losses spiral” perspectives emphasized in the COR theory suggest that initial resource gains lead to future resource gain; initial resource losses lead to future resource losses (Hobfoll, 1989, 2001). One could imagine that the positive experience of the interaction between work and family roles benefited from resource gains of resource development at work would lead to individuals to develop more resources at work (resource development → work-family enrichment →

resource development) whereas the negative experience of the interaction between work and family roles as a consequence of draining resources during the resource development process would prevent people from continuously developing resources at work (resource development → work-family conflict → hindered resource development).

The key question in testing hypotheses in this dissertation with a longitudinal approach concerns a plausible time interval that allows one variable to have an effect on the other variable. Cole and Maxwell (2003) emphasized that the use of intervals can seriously affect the estimation of mediational relations. The data was collected at three time periods with three weeks apart to reduce common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The lag of three weeks was chosen for several reasons. First, it fell within the boundaries used in previous multiwave studies for examining work-family interaction, ranging from daily diary studies over the course of several days (e.g., Ilies, Keeney, & Scott, 2011) to a longer process of six months to even several years (e.g., Grant-Vallone, & Donaldson, 2001; Frone, Russell, & Cooper, 1997). This is consistent with what was noted in Mitchell and James (2001), “If a lag is too big, X [independent variable] wears off or other variables may come into play. If it is too small, the effect may not be complete or reactivity may occur.” (p. 537). Second, a lag of weeks is appropriate because, as Maertz and Boyar (2011) mentioned, participants would not be able to necessarily recognize whether work-family conflict or work-family enrichment is “being processed currently or is a memory from the past” with a longer lag of months or years. Third, the lag of three weeks allows employees to have enough time to develop human capital, social capital, and altruistic capital so that the process of

resource development can play out. Indeed, prior research has suggested that resources developed at work could be week-specific, as job factors such as tasks and/or working hours can vary on a weekly basis (Bakker & Bal, 2010).

The number of subjects who completely filled out the survey was 275 for time 1, 176 for time 2, and 126 for time 3, respectively. The final sample (N = 126) includes subjects who completed all three surveys, for a 46% retention rate. Within the sample, there were 62 female (49%) and 64 male (51%), with an average of two dependents living with them. Their mean age was 41 years. The sample represents various industries (e.g., business, education, government, military, and health care). The participants were asked to provide information for mediators and outcome variables across three time points. Personality traits were collected during the first time period. This is because personality research has generally assumed static individual differences in personality traits (Barrick & Mount, 1991; Costa & McCrae, 1992). One may expect that personality traits are unlikely to change significantly across three time points over the course of nine weeks. Although the data collection contained three repeated measures for mediators and outcomes for a longitudinal design (Ployhart & Vandenberg, 2010), the condition for conducting the time-lag analysis is met through measuring the personality traits at Time 1, mediators at Time 2, and work-family outcomes at Time 3.

## **Measures**

*Personality Traits.* Conscientiousness, extraversion, and agreeableness were assessed using an eleven-item scale from the Mini-IPIP (Donnellan, Oswald, Baird, & Lucas, 2006)—a short form of the International Personality Item Pool (Goldberg, 1999).

Each participant responded to items anchored from 1 (strongly disagree) to 6 (strongly agree). Sample items are “I like order”, “I am the life of the party”, and “I sympathize with others’ feelings” for three personality traits respectively. Although the original scale included four items to access each type of personality trait, one reversed-coded item for conscientiousness was dropped for two reasons. First, exploratory factor analysis revealed that this negatively worded item was defined as a single factor. Second, reverse scored items always show highly correlated error than other within-scale items (Irving, Coleman, & Cooper, 1997; Piccolo & Colquitt, 2006; Schmitt & Stults, 1985). Coefficient alphas were .71 for conscientiousness, .89 for extraversion, and .86 for agreeableness.

*Resource Development.* The measures of resource development ask employees that in order to achieve their professional goals, to what extent do they *strive to* engage in (a) human capital development, (b) social capital development, and (c) altruistic capital development? The response scale used for each item was 1 = almost never strive, 2 = usually don’t strive, 3 = rarely strive, 4 = occasionally strive, 5 = often strive, 6 = very often strive. Due to the goal-directed definition of resources, the measure thus reflects the motivational element of resource development by capturing the psychological processes (“striving to”) involved with engaging different types of resource development.

*Human Capital Development.* Nine-item’s Birdi et al. (1997) scale was used to measure human capital development. This scale captures engagement in training that develops one’s job-related knowledge and skills as well as professional and personal

development such as involvement in implementing and revising development plans and search for career development opportunities. Sample items are “I visit the training and development center to develop *job-related* knowledge and skills” and “I am actively involved in implementing and revising my development plan.” The original instrument includes 13 items accounting for development activities that occur in one’s work or own time. The scales were rephrased to capture activities at work because development activities in one’s own time may confound with work-family conflict. Nine items were selected from the original 13 items for different reasons. First, the item “enrolled in a college or university course that offered a qualification relevant to their job, for which the company reimbursed the fees” was dropped because this activity does not happen on a regular basis and cannot be applied to manifold kinds of jobs in diverse industries. Second, the items “I consider transferring to other departments or positions” and “I engage with people outside my work unit to better understand the business” were not included because these two items may overlap with the other mediator—social capital development. Lastly, the items “I visit the training center to develop *non-job-related* knowledge and skills” and “I use the employee development program to develop *non-job-related* knowledge and skills” were combined to ensure parsimony. Coefficient alpha was .93 at each time period. The average value for test-retest intercorrelations across three time points was .80, meaning that the measure of human capital development was reliable across time.

*Social Capital Development.* Ferris et al.’s (2005) six-item scale of network building was used to assess social capital development. Despite the fact that the

instrument was initially designed for measuring one's ability and skills toward network building, the scale was adapted in this dissertation to be behavioral-focused. The scale is intended to measure to what extent one strives to engage in developing social capital and exercising influence, and thus has a motivational component in it. Sample items are "I build relationships with influential people at work to increase my influence," "I rely on connections and networks to make things happen at work," and "I get to know a lot of important people and stay well-connected, to increase my influence." Coefficient alpha was .96 at each time period. The average value for test-retest intercorrelations across three time points was .75.

*Altruistic Capital Development.* This construct was operationalized as helping behavior that is assisting and cooperative, which is directed toward and benefits other individuals. Lee and Allen's (2002) eight-item scale of citizenship directed toward individuals was used to measure altruistic capital development. Sample items are "I help others who have been absent at work," "I willingly give my time to help others who have work-related problems." Coefficient alpha was .92 at each time period. The average value for test-retest intercorrelations was .66.

*Work-Family Conflict.* This construct was measured using the nine-item scale developed by Carlson, Kacmar, and Williams (2000), with a focus on work interference with family. Respondents indicated agreement on a six-point scale with items such as "my work keeps me from my family activities more than I would like," "I am often so emotionally drained when I get home from work that it prevents me from contributing to my family," "behavior that is effective and necessary for me at work would be

counterproductive at home.” Coefficient alphas were .94, .94, .95 at the three time points. The average value for test-retest intercorrelations was .77.

*Work-Family Enrichment.* It was measured using nine-item scale developed by Carlson, Kacmar, Wayne, and Grzywacz (2006), with a focus on the work to family direction. Respondents indicated agreement on a six-point scale with items such as “my work helps me to understand different viewpoints and this helps me be a better family member,” “my work puts me in a good mood and this helps me be a better family member,” “my work helps me feel personally fulfilled and this helps me be a better family member.” Coefficient alphas were .96, .96, .97 at the three time points. The average value for test-retest intercorrelations was .85.

## **A Time-Lag Design**

### **Data Analysis**

*Confirmatory Factor Analysis.* To test the measurement model, a series of confirmatory factor analyses (CFA’s) were implemented in MPlus version 7 based on Maximum-likelihood estimation methods. Specification of a multifactor CFA in which each of the indicators loads on only one factor would provide the evidence that the focal constructs are discriminate with each other (Hu & Bentler, 1996). Given the relatively large number of items, the first step was to randomly create three parcels of items for the mediators and work-family outcomes (Hall, Snell, & Foust, 1999; Williams & O’Boyle, 2008). Several fit statistics were used to evaluate model fit, including the chi-square test statistic (Bentler & Bonett, 1980), the root mean squared error of approximation (RMSEA; Steiger, 1990), the comparative fit index (CFI; Bentler, 1990), and the

standardized root mean squared residual (SRMR). The second step was to test the eight-factor hypothesized model. Results show that this hypothesized baseline model fit the data well ( $\chi^2_{(271, N = 126)} = 425.577, p < .01, CFI = .944; RMSEA = .067; SRMR = .054$ ) and all the standardized loadings were significant ( $p < .01$ ). The results support the measurement of the variables in the hypothesized model, which allows for subsequent examination of structural paths between focal variables. The hypothesized eight-factor model was further contrasted with an alternative three-factor measurement model in which data collected at the same time point were loaded onto a single factor. The alternative model fit was poor and was inferior to the hypothesized model ( $\chi^2_{(296, N = 126)} = 1299.582, p < .01, CFI = .639; RMSEA = .164; SRMR = .120$ ) so that the discriminant validity of the scales in the model measures were supported (Anderson & Gerbing, 1988). As presented in Table 1, resource development variables are highly correlated with one another (average intercorrelation of .72). To ensure that three resource development variables are distinct constructs, the hypothesized measurement model was compared to a six-factor model where three resource development variables are loaded onto a single factor. As seen in Table 2, despite the high intercorrelation for resource development variables, separation of resource development into three factors creates better fit, which suggests that human capital development, social capital development, and altruistic capital development are three distinct factors rather than a composited factor.

## **Results**

To ensure that the hypothesized model is the best representation of the data, the

hypothesized model was also compared to two alternative models. Descriptive statistics are presented in Table 1 and the comparison of fit statistics for alternative models are presented in Table 2.

All models show acceptable levels of fit given that CFI values are close to .95, RMSEA values are close to .06, and SRMR values are close to .08 or below (Hu & Bentler, 1999). The direct paths were added between all three personality traits and work-family outcomes for the alternative model 1. In comparison to the alternative model 1, the hypothesized model is more restricted. Thus, a chi-square difference test is used here to statistically test whether there is a significant difference in fit for the two models, with the alternative model nested within the hypothesized model. The chi-square difference test suggests that the difference in fit was significant  $\chi^2_{\text{difference}} = 22.275, p < .05$ . However, the direct paths between all three personality traits to work-family outcomes were nonsignificant for the alternative model 1. Therefore, statistically it is appropriate to conclude that the hypothesized model as a more parsimonious representation of the data.

For the second alternative model, each personality trait was linked with all three types of resource development. Although there was a significant improvement in the fit over the hypothesized model  $\chi^2_{\text{difference}} = 21.574, p < .05$ , none of the paths between three personalities and three mediators was nonsignificant. Given the nonsignificant paths, the simpler model is chosen and the more complex model is rejected. In conclusion, the hypothesized model is preferred when compared to the two competing models as the hypothesized model is the most parsimonious representation of the data.

Therefore, the hypothesized model was used for hypothesis testing.

Hypothesis 1 stated that conscientiousness would be positively related to accomplishing human capital development. As shown in Figure 3, the standardized path coefficient between conscientiousness and human capital development was significant ( $\beta = .677, p < .01$ ). The result supported Hypothesis 1. Hypothesis 2 proposed that extraversion would be positively related to social capital development. Consistent with Hypothesis 2, a positive and significant standardized path coefficient was found for the linkage between extraversion and social capital development ( $\beta = .284, p < .01$ ).

Hypothesis 3 predicted that agreeableness would be positively related to altruistic capital development. In support of Hypothesis 3, a significant and positive standardized path coefficient was found for the relationship between agreeableness and altruistic capital development ( $\beta = .716, p < .01$ ).

Hypothesis 4 proposed that human capital development would be positively related to both work-family conflict and work-family enrichment. In support of Hypothesis 4, both paths from human capital development to work-family outcomes were significantly positive ( $\beta = .317, p < .01$  for work-family conflict and  $\beta = .277, p < .01$  for work-family enrichment). Hypothesis 5 proposed that social capital development would be negatively related to work-family conflict but would be positively related to work-family enrichment. As expected, a positive and significant path was found between social capital development and work-family enrichment ( $\beta = .253, p < .01$ ). Yet contrary to the expectation, there was a positive standardized coefficient for the path between social capital development and work-family conflict ( $\beta = .189, p < .01$ ). Thus,

Hypothesis 5 was partially supported. Hypothesis 6 proposed that altruistic capital development would be positively related to both work-family conflict and work-family enrichment.

**Table 1. Descriptive Statistics and Inter-Correlations among Study Variables**

	<i>Mean</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Conscientiousness	4.66	.80								
2. Extraversion	3.70	1.31	.25**							
3. Agreeableness	4.51	.91	.30**	.60**						
4. Human Capital Development T2	4.11	1.15	.21*	.63**	.52**					
5. Social Capital Development T2	4.08	1.39	.26**	.63**	.49**	.81**				
6. Altruistic Capital Development T2	4.51	.97	.23*	.48**	.62**	.74**	.67**			
7. Work-family Conflict T3	3.27	1.30	.02	.30**	.05	.21*	.14	.02		
8. Work-family Enrichment T3	4.34	1.14	.25**	.49**	.48**	.54**	.55**	.48**	-.14	

*Note:*  $n = 126$ . *SD* = standard deviation.

\*\*  $p < .01$ . \*  $p < .05$

**Table 2. Fit Indices for Confirmatory Factor Analysis**

Models	$\chi^2$	d.f.	$\chi^2$ Differences	Model Comparison	SRMR	RMSEA	CFI
Hypothesized eight-factor model	425.577	271			.054	.067	.944
Three-factor model	1239.398	296	813.821 (25)**	Compared to hypothesized model	.201	.159	.661
Six-factor model	1021.362	284	595.785 (13)**	Compared to hypothesized model	.112	.144	.735

*Note:* three-factor model – data collected at the same time point were loaded onto a single factor; six-factor model – resource development variables were loaded onto one factor; three personality traits were loaded on three factors respectively; work-family conflict and enrichment were loaded onto two factors respectively; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; CFI = comparative fit index.

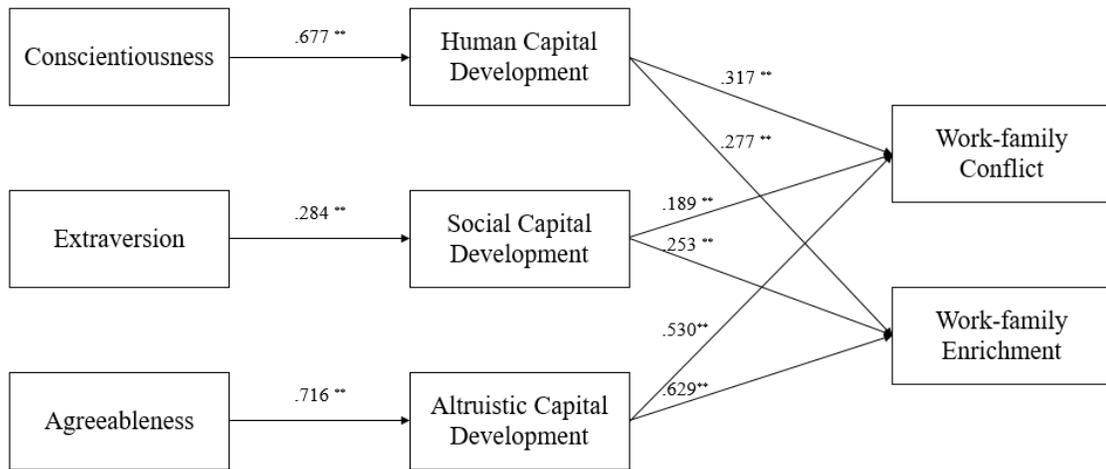
\*\* $p < .01$ . \* $p < .05$

**Table 3. Comparison of Fit Statistics for Alternative Models**

Models	$\chi^2$	d.f.	$\chi^2$ Differences	Model Comparison	SRMR	RMSEA	CFI
Hypothesized model	445.252	281			.083	.068	.941
Alternative model 1	422.977	275	22.275 (6)**	Compared to hypothesized model	.073	.065	.947
Alternative model 2	423.678	275	21.574 (6)**	Compared to hypothesized model	.057	.066	.947

*Note:* hypothesized model is a model specifying how three personality traits indirectly affect work-family outcomes through their most relevant resource development process; direct links between three personality traits and work-family outcomes are further added in the alternative model 1; alternative model 2 shows links between all three personality traits and work-family outcomes through *all* resource development processes; error terms for each variable are correlated for each model; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; CFI = comparative fit index.

\*\*  $p < .01$ . \*  $p < .05$



**Figure 3. Standardized Path Estimates for the Hypothesized Model**  
**\*\*  $p < .01$**

Significant paths were found from altruistic capital development to both work-family conflict ( $\beta = .530, p < .01$ ) and work-family enrichment ( $\beta = .629, p < .01$ ), which supports Hypothesis 6.

Hypothesis 7 stated that the indirect effect of conscientiousness on work-family conflict and work-family enrichment would operate primarily through human capital development. Consistent with expectations, the indirect effect of conscientiousness on work-family conflict and work-family enrichment through human capital development were positive and significant ( $ab = .215, p < .01$  for work-family conflict;  $ab = .188, p < .01$  for work-family enrichment). Thus, Hypothesis 7 was supported.

Hypothesis 8 stated that the indirect effect of extraversion on work-family conflict and work-family enrichment would operate primarily through social capital development. As expected, the indirect effect of extraversion on work-family enrichment

through social capital development was positive and significant ( $ab = .054, p < .05$ ); the indirect effect of extraversion on work-family conflict through social capital development was positive, which is opposite to what was hypothesized ( $ab = .072, p < .05$ ). Thus, Hypothesis 8 was partially supported.

Hypothesis 9 proposed that the indirect effect of agreeableness on work-family conflict and enrichment would operate primarily through altruistic capital development. The indirect effects via altruistic capital development were  $.380 (p < .01)$  and  $.451 (p < .01)$  for work-family conflict and work-family enrichment respectively. Thus, Hypothesis 9 was supported.

In addition, the COR theory along with the psychology literature suggests that resource losses have greater impact than resource gains (Hobfoll, 1989, 2001). Imagining that resource development can be associated with both consumption of resources and acquisition of resources, theoretically it seems reasonable to (1) pit the deleterious effect of resources development (leading to work-family conflict) against the positive effect of resource development (leading to work-family enrichment) and (2) to expect that for each personality trait, the indirect effect through the relevant resource development on work-family conflict would exhibit a stronger effect than the indirect effect on work-family enrichment.

The analysis for differential indirect effect was conducted in an exploratory manner, using MacKinnon et al.'s (2007) PRODCLIN program. The bootstrapped 95% confidence intervals for the indirect paths were calculated by entering the regression coefficient estimates and standard errors obtained from the SEM model. 95% CIs

excluding zero suggest a significant indirect effect, and non-overlapping 95% CIs suggest the existence of differential indirect effects through the proposed mediator. The results revealed that 95% CIs for the two indirect paths overlapped for each personality trait (95% CIs = .102, .353 for conscientiousness → human capital development → work-family conflict and 95% CIs = .087, .311 for conscientiousness → human capital development → work-family enrichment; 95% CIs = .012, .111 for extraversion → social capital development → work-family conflict and 95% CIs = .022, .135 for extraversion → social capital development → work-family enrichment; 95% CIs = .270, .499 for agreeableness → altruistic capital development → work-family conflict and 95% CIs = .345, .565 for agreeableness → altruistic capital development → work-family enrichment). Therefore, there was no differential indirect relationships between each personality trait and their more distal criteria (work-family conflict vs. work-family enrichment), which indicates that resource development governed by the focal personality traits *equally* contribute to work-family conflict and work-family enrichment.

### **Post-Hoc Analysis and Results**

I have theoretically argued for the position of the hypothesized model (Figure 1) and found that the hypothesized model is the most parsimonious representation of data in comparison to two other alternative models (Table 3). However, it is possible that there are “cross paths” between three personality traits and resource development variables. To ensure completeness, I reported path estimates for the alternative model 2—the model with “cross paths” in Figure 4, with no error terms correlated for each variable.

The path model shows that the standardized coefficients between agreeableness and social capital development become *negative* after including other predictors in the model, whereas Table 1 shows that agreeableness and social capital development are *positively* correlated. This suggests that multicollinearity may be potentially involved. In order to better access the links between personality traits and resource development, I run analyses for path models with only one trait at a time and the results are provided in Figure 5 through Figure 7.

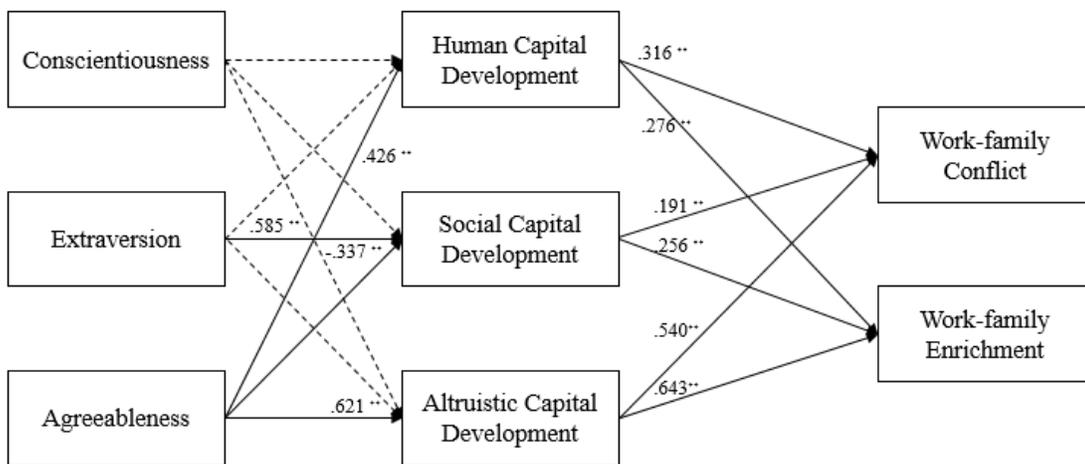
As seen in Figure 5, the results show that in support of Hypothesis 1, conscientiousness is positively related to both human capital development ( $\beta = .314, p <.01$ ) and altruistic capital development ( $\beta = .327, p <.01$ ). I then used the PRODCLIN (MacKinnon & Fritz, 2007) program to calculate the bootstrapped 95% confidence intervals for the indirect paths of conscientiousness and work-family conflict and enrichment through both human capital development and altruistic capital development. There was no evidence that the indirect effect works primarily through human capital development rather than altruistic capital development, given the overlapping 95% CIs for the indirect effect paths in question ( $ab = .111, 95\% \text{ CI} = .033, .211$  vs.  $ab = .187; 95\% \text{ CI} = .070, .211$ ). I likewise found that there were no differential effects on work-family enrichment through human capital development, versus through altruistic capital development ( $ab = .099, 95\% \text{ CI} = .029, .190$  vs.  $ab = .226; 95\% \text{ CI} = .086, .375$ ). The results supported Hypothesis 4, and Hypothesis 7 was partially supported.

Moreover, as shown in Figure 6, the results revealed that extraversion affects both work-family conflict and enrichment through all three types of resource

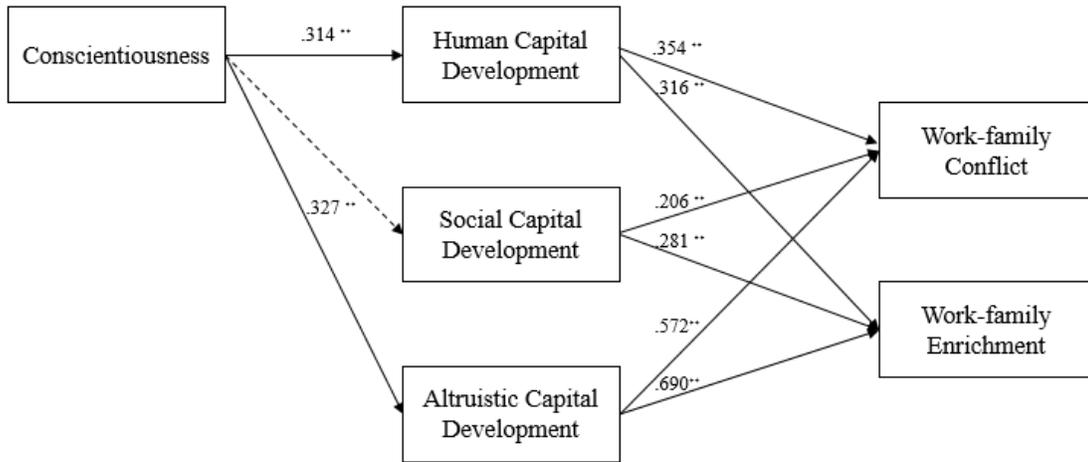
development. Further analyses suggest that the indirect effect of extraversion on work-family conflict/enrichment through social capital development was not significantly different from the indirect effect through human capital development. 95% CIs are overlapped (for work-family conflict:  $ab = .173$ , 95% CI = .089, .270 through human capital development;  $ab = .060$ ; 95% CI = .015, .120 through social capital development; for work-family enrichment:  $ab = .150$ , 95% CI = .075, .237 through human capital development;  $ab = .081$ ; 95% CI = .031, .144 through social capital development). The indirect effects of extraversion on work-family conflict and enrichment through altruistic capital development were larger than the indirect effect through social capital development (for work-family conflict:  $ab = .060$ ; 95% CI = .015, .120 through social capital development;  $ab = .306$ , 95% CI = .204, .422 through altruistic capital development; for work-family enrichment:  $ab = .081$ ; 95% CI = .031, .144 through social capital development;  $ab = .363$ , 95% CI = .256, .482 through altruistic capital development). Therefore, I find support for Hypothesis 2 but partial support for Hypothesis 5. The results did not support Hypothesis 8.

Additionally, the findings suggest that agreeableness is positively related to both human capital development ( $\beta = .578$ ,  $p < .01$ ) and altruistic capital development ( $\beta = .712$ ,  $p < .01$ ), which in turn lead to both work-family conflict and work-family enrichment (Figure 7). Further analyses suggest that the indirect effect through altruistic capital development is larger than the indirect effect through human capital development (for work-family conflict:  $ab = .185$ ; 95% CI = .094, .288 through human capital development;  $ab = .384$ , 95% CI = .272, .505 through altruistic capital development; for

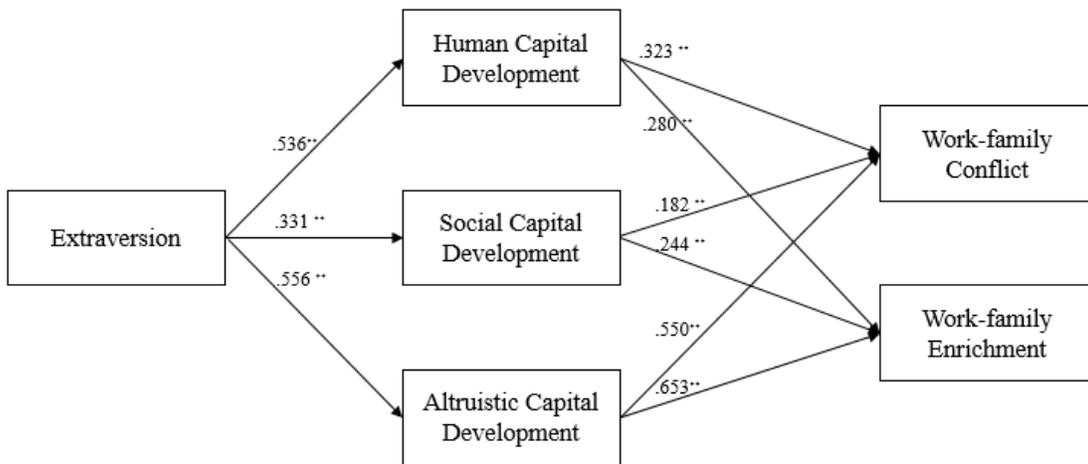
work-family enrichment:  $ab = .164$ ; 95% CI = .082, .257 through human capital development;  $ab = .459$ , 95% CI = .352, .576 through altruistic capital development). In other words, I found strong support for the proposition that agreeableness primarily influences work-family conflict and enrichment through altruistic capital development. The results supported Hypothesis 3, Hypothesis 6, and Hypothesis 9.



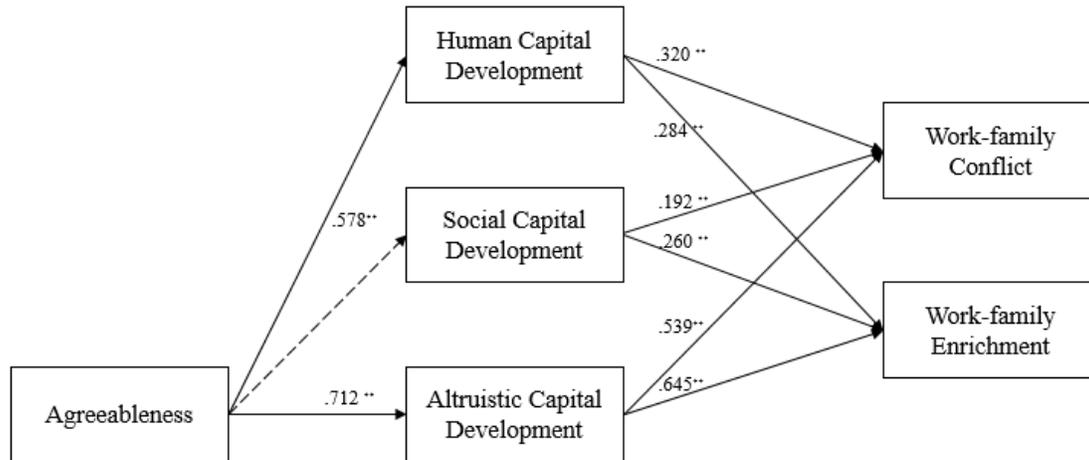
**Figure 4. Standardized Path Estimates for the Cross Paths Model**



**Figure 5. Standardized Path Estimates for the Relationship Between Conscientiousness and Work-Family Outcomes**



**Figure 6. Standardized Path Estimates for the Relationship Between Extraversion And Work-Family Outcomes**



**Figure 7. Standardized Path Estimates for the Relationship Between Agreeableness and Work-Family Outcomes**

### A Longitudinal Design

#### Data Analysis

In addition to examination of the aforementioned mediation effects using a time-lag design, the hypotheses were also tested longitudinally. As mentioned earlier, the longitudinal analyses explore the direction of causality and the possibility of reciprocal effects between resource development and work-family outcomes such as work-family conflict and work-family enrichment. There are two reasons why a longitudinal design is considered for this dissertation. First, a three wave longitudinal design has its methodological advantages. Mediation models help answer the fundamental question posed in the current dissertation—*why* and *how* conscientiousness, extraversion, and agreeableness affect work-family conflict and work-family enrichment and through which mediating mechanism. A longitudinal design is preferred for testing the current

mediation model because it helps to establish the causality, and because “the causal relationships implied by the paths in the mediational model take time to unfold” (Selig & Preacher, 2009, p. 146). In addition to the benefit of testing how the variables are related to each other over time, a longitudinal design can also be used to track the change of the investigated constructs (work-family outcomes and resource development) in three waves. If the results support the hypotheses using the longitudinal design, confidence in the conclusions drawn from the time-lag study could be strengthened because the analyses allow for controlling for prior levels of work-family experience and three mediators of resource development.

Second, from a theoretical standpoint, COR theory is a dynamic theory. The time-relevant issues addressed in the theory require longitudinal designs (Halbesleben et al., 2014). For instance, Hobfoll (1989, 2001) suggests that resource losses/gains could occur in spiral, which represents a largely untested tenet of COR theory. Research also suggests that individuals may experience both a resource gain spiral and a resource loss spiral simultaneously (Chen, Powell, & Cui, 2014). Notably, while the literature on gain and loss spirals has grown dramatically in the past few years, empirical evidence has been largely based on studies with a cross-sectional design. Even among the handful studies that have employed a longitudinal design, they have only examined either the positive aspect or the negative aspect of the interaction between work and family domains without considering both sides of work-family experience (Demerouti et al., 2004; Hammer et al., 2005).

Resource gain/loss spirals provides alternative theoretical positions of the reversed causality of variables in the process model—three personality traits will evoke work-family conflict and work-family enrichment, and experience of work-family conflict and work-family enrichment will consequently affect the way people develop their desirable resources at work. According to the theory, under the situation in which individuals may experience a resource gain spiral, the initial resource acquisition facilitates the development of further resources. Applied to the current case, this aspect of the theory suggests that three personality traits would trigger work-family enrichment, which would lead to people with different personalities to engage in relevant resource development at work. It is also possible for individuals to experience a resource loss spiral, in which that loss spiral prevents people from switching the resource loss situation into gain cycles. In this case, it would not be hard to imagine that three personality traits might also trigger work-family conflict, which would hinder individuals from further developing their resource at work.

The theory may also suggest a more elaborate model that captures reciprocal relations among focal variables. That is, three personality traits, resource development, and work-family conflict could be mutually related to one another over time. In fact, in a recent review piece, Halbesleben et al. (2014) argued that it would be impossible for one to continually acquire resources indefinitely, and they noted that “much of the literature implicitly assumes that there are processes that keep resources from reaching some theoretical ceiling” (p.15). Considering that the investment of resources is a natural part of any resource losses cycle, it is possible to imagine that investment of resources

associated with spending resources could keep someone from reaching some maximum level of resources and even lead to downward pressure of an overall resource accumulation. Accordingly, it can be expected that (a) conscientiousness will evoke human capital development and consequently the experience of work-family conflict, so that the experience of work-family conflict will prevent conscientious individuals from further developing human capital; (b) extraversion will evoke social capital development and consequently the experience of work-family conflict, so that the experience of work-family conflict will prevent extroverts from further developing social capital; (c) agreeableness will evoke altruistic capital development and consequently the experience of work-family conflict, so that the experience of work-family conflict will prevent agreeable individuals from further developing altruistic capital.

To test the three-wave longitudinal model, Cole and Maxwell's (2003) procedure (see Colquitt & Rodell, 2011; Demerouti et al., 2004; Epitropaki & Martin, 2005 for applications in the organizational behavior literature), along with the Mplus syntax specified in MacKinnon (2008) were used to test the four competing longitudinal mediation models.

*Model 1: Causality model with longitudinal mediation.* First, in order to capture within-time covariation and stability of the measure of the same variable over time, a stability model was tested to capture synchronous correlations among variables at one time point (by allowing the variables at each wave to covary, as well as allowing the covariance among the residual variances of variables at each wave to covary). This model deals with cause-effect for variables across each time point. In particular, the

model specified cross-lagged structural paths from extraversion, agreeableness, and conscientiousness to (a) Time 2 and Time 3 human capital development, social capital development, altruistic capital development and (b) Time 2 and Time 3 work-family conflict and work-family enrichment. It is worth noting that no cause-effect relationship was modeled between variables within the same time point.

*Model 2: Causality model with cross-sectional as well as the longitudinal mediation.* The second model is similar to model 1, except for capturing contemporaneous mediation relationships among three personality traits, three types of resource development, and work-family outcomes in addition to the longitudinal mediation. That is, in addition to the cross-lagged structural paths from extraversion, agreeableness, and conscientiousness to (a) Time 2 and Time 3 human capital development, social capital development, altruistic capital development and (b) Time 2 and Time 3 work-family conflict and work-family enrichment, cause-effect within each time point was specified as well.

*Model 3: Reciprocal model.* This model allowed for cross-lagged relations among variables. However, in addition to hypothesized causality such as personality traits to respective resource development and resource development to work-family outcomes, it specified time-lagged effects of the reverse to the hypothesized causal order (personality trait → work-family conflict and work-family enrichment at Time 2 → resource development at Time 3). These analyses controlled for prior levels of resource development and work-family variables.

## Results

Table 4 shows the zero-order correlations among Time 1, Time 2, and Time 3 variables. Direct inspection from the table suggests that intercorrelations between (1) personality traits and resource development variables and (2) resource development and work-family outcomes remain quite stable over time. Table 5 displays the fit statistics for the longitudinal competing models. The chi-square differences test is used to compare competing models. Specifically, whenever the chi-square differences test is significant, a less restricted model (a model with more paths) should be considered in that the fit of a model is significantly improved by adding additional paths. Accordingly, Model 2 proved to be a better model than Model 1 ( $\chi^2_{\text{differences}} = 26.554, p < .01$ ). This suggests that the longitudinal mediation model is further strengthened by including contemporaneous mediation relationships within each time point in addition to cross-lagged paths across three time points. The reciprocal model that specifies both hypothesized causality and reversed causality (Model 3) appears to have a better fit in comparison to Model 1 ( $\chi^2_{\text{differences}} = 50.771, p < .01$ ) and Model 2 ( $\chi^2_{\text{differences}} = 24.217, p < .01$ ). Although the results show that the reciprocal model has the best fit, there are several nonsignificant paths—there was no evidence that three resource development are mediators of the relation between three personality traits and work-family outcomes. Overall, the longitudinal mediation model failed to find support for the originally hypothesized direction of effects. Interestingly, the finding implies a reverse causal chain of conscientiousness  $\rightarrow$  work-family enrichment at time 2  $\rightarrow$  human capital development at time 3. That is, the effect of conscientiousness and human capital development can be

attributed to the indirect effect through work-family enrichment over time ( $\beta = .03, p < .05$ ). Figure 8 shows the significant lagged path in the reciprocal model linking conscientiousness and human capital development through work-family enrichment

**Table 4. Descriptive Statistics and Inter-Correlations among Study Variables across Three Time Points**

	<i>Mean</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Conscientiousness	4.66	0.80								
2. Extraversion	3.70	1.31	.25**							
3. Agreeableness	4.51	0.91	.30**	.60**						
4. Human Capital Development 1	4.07	1.12	.20*	.69**	.52**					
5. Human Capital Development 2	4.11	1.15	.21*	.63**	.52**	.80**				
6. Human Capital Development 3	3.94	1.08	.11	.69**	.54**	.78**	.83**			
7. Social Capital Development 1	3.99	1.35	.17	.66**	.45**	.84**	.69**	.69**		
8. Social Capital Development 2	4.08	1.39	.26**	.63**	.49**	.74**	.81**	.71**	.78**	
9. Social Capital Development 3	3.96	1.31	.19*	.68**	.50**	.72**	.67**	.83**	.74**	.75**
10. Altruistic Capital Development 1	4.48	0.93	.16	.54**	.65**	.72**	.55**	.59**	.61**	.49**
11. Altruistic Capital Development 2	4.51	0.97	.23*	.48**	.62**	.63**	.74**	.63**	.51**	.67**
12. Altruistic Capital Development 3	4.42	0.88	.07	.48**	.58**	.59**	.46**	.65**	.47**	.41**
13. Work-family Conflict 1	3.40	1.25	.10	.40**	.23*	.36**	.33**	.35**	.38**	.28**
14. Work-family Conflict 2	3.46	1.30	.08	.40**	.14	.22*	.30**	.29**	.21*	.23*
15. Work-family Conflict 3	3.27	1.30	.02	.30**	.05	.17	.21*	.24**	.15	.14
16. Work-family Enrichment 1	4.26	1.11	.28**	.60**	.53**	.78*	.63**	.66**	.71**	.66**
17. Work-family Enrichment 2	4.35	1.07	.33**	.55**	.46**	.65**	.63**	.63**	.62**	.65**
18. Work-family Enrichment 3	4.34	1.14	.25**	.49**	.48**	.58**	.54**	.66**	.53**	.55**

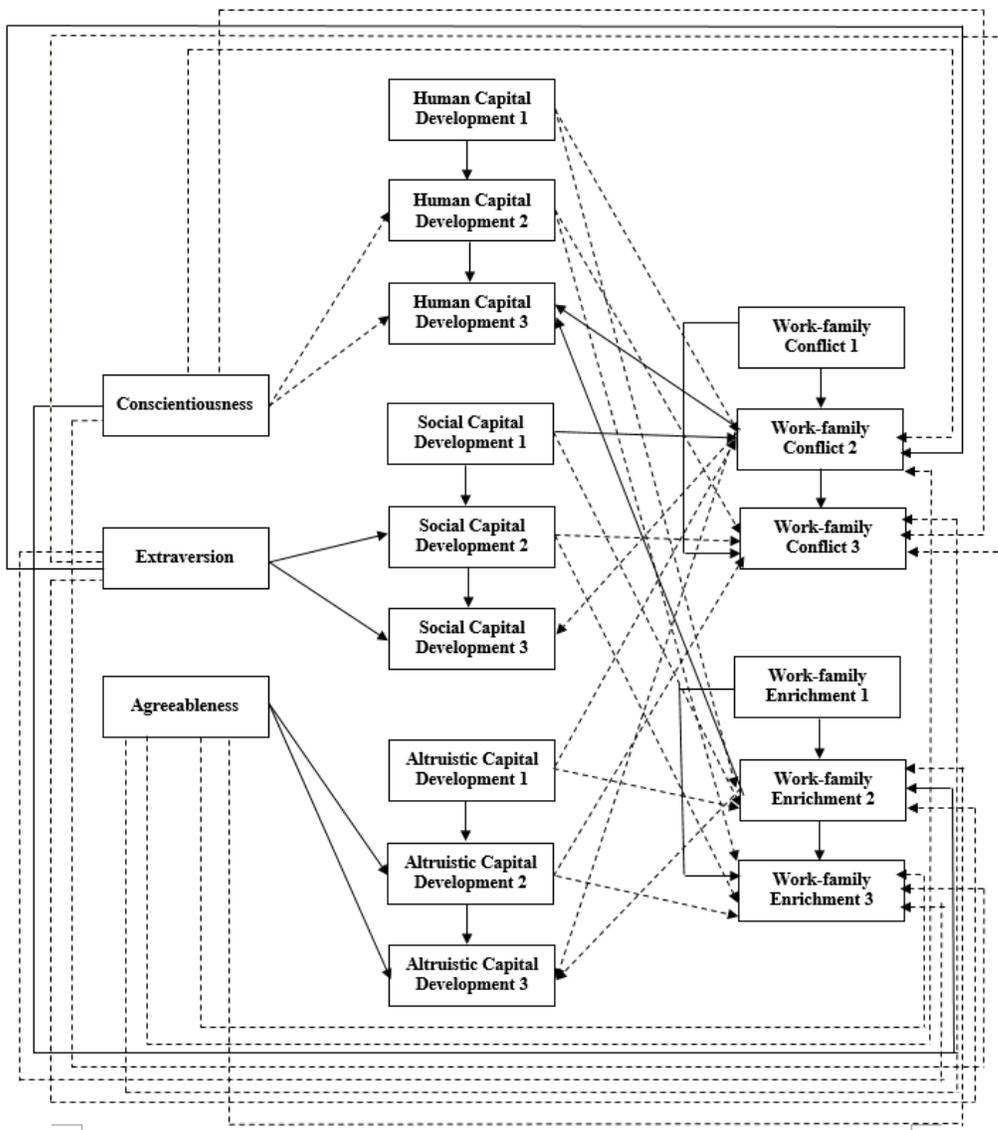
**Table 4. Continued**

	9	10	11	12	13	14	15	16	17	18
1. Conscientiousness										
2. Extraversion										
3. Agreeableness										
4. Human Capital Development 1										
5. Human Capital Development 2										
6. Human Capital Development 3										
7. Social Capital Development 1										
8. Social Capital Development 2										
9. Social Capital Development 3										
10. Altruistic Capital Development 1	.60**									
11. Altruistic Capital Development 2	.56**	.62**								
12. Altruistic Capital Development 3	.66**	.80**	.57**							
13. Work-family Conflict 1	.25**	.26**	.18*	.19*						
14. Work-family Conflict 2	.17	.15	.12	.13	.74**					
15. Work-family Conflict 3	.09	.02	.02	.03	.74**	.84**				
16. Work-family Enrichment 1	.71**	.62**	.57**	.52**	.21*	.04	-.04			
17. Work-family Enrichment 2	.67**	.46**	.54**	.39**	.11	-.01	-.07	.87**		
18. Work-family Enrichment 3	.70**	.47**	.48**	.49**	.04	-.07	-.14	.83**	.85**	

**Table 5. Comparisons for Alternative Longitudinal Mediation Models**

Models	$\chi^2$	d.f.	$\chi^2$ Differences	Model Comparison	SRMR	RMSEA	CFI
Model 1	160.184	66			.092	.106	.944
Model 2	133.630	58	26.554 (8)**	Compared to Model 1	.087	.102	.955
Model 3	109.413	55	50.771 (11)** 24.217 (3)**	Compared to Model 1 Compared to Model 2	.079	.093	.968

*Note:* Model 1 = causality model with longitudinal mediation; Model 2 = causality model with cross-sectional as well as the longitudinal mediation; Model 3 = reciprocal model that includes both hypothesized directions and reversed directions; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; CFI = comparative fit index.  
\*\*  $p < .01$ . \*  $p < .05$



**Figure 8. The Reciprocal Model of Longitudinal Mediation Model**

*Note:* solid lines are significant ( $p < .05$ ), dashed lines are not significant

## CHAPTER IV

### DISCUSSION AND CONCLUSION

#### **Overall Discussion**

Previous research has demonstrated that work-family conflict and work-family enrichment are orthogonal constructs that may be influenced by different personality traits (Frone, 2003; Grzywacz & Marks, 2000). The findings of this dissertation suggest that the link between three personality traits and work-family outcomes is a complex process, rather than a simple directional effect. Specifically, personality (conscientious, agreeableness, extraversion), resource development (human capital development, social capital development, altruistic capital development), work-family conflict and work-family enrichment are captured as relevant to several aspects of COR theory—key resources, the resource investment processes, and the outcomes of resource losses and gains, respectively (Hobfoll, 2001).

#### **Contribution to Theory**

In terms of theoretical contributions, this dissertation clarifies some key aspects of COR theory as applied to work-family literature. By answering *why* and *how* personality matters to one's experience of work-family conflict and enrichment, the primary contribution of this dissertation is to draw on and expand upon COR theory in order to better understand how personality types indirectly affect work-family outcomes via resource development. The results for the hypothesized path model, along with the post hoc analysis examining a "cross paths" model, provide support for the proposition

that the indirect effect of agreeableness on both work-family conflict and enrichment operates primarily through altruistic capital development.

Additionally, the results for the hypothesized model suggests that the indirect effect of conscientiousness on work-family conflict/enrichment operates through human capital development. The post hoc analysis further revealed that in addition to developing human capital at work, it is likely for conscientious individuals to engage altruistically at work, which in turn leads to both work-family conflict and work-family enrichment. Indeed, for the link between conscientiousness and altruistic capital development, the literature researching teams has suggested that in order to achieve team goals, conscientious individuals who are dependable and hardworking are likely to engage in teamwork and provide assistance to others (Mount, Barrick, & Stewart, 1998; Porter et al., 2003).

In terms of relations among personality traits, resource development, and work-family conflict and enrichment, the results for the hypothesized model suggests that the indirect effect of extraversion on work-family conflict through social capital development is positive rather than the originally hypothesized negative direction. One explanation of this finding might be that social capital development could potentially turn to social overload (Maier, Laumer, Eckhardt, & Weitzel, 2015). While extroverts benefit from developing social capital at work, it could be a disadvantage to remain with their social capital because they might be required to provide benefits to the contacts in their network in a reciprocal way (Swickert, Rosentreter, Hittner, & Mushrush, 2002). In the resource theory of social exchange, Foa and Foa (1974) suggest that in order to

develop resources such as status and information, one would need to exchange resources with others such as spending time toward engaging in social events at work or after work. This notion is further supported in Halbesleben and Wheeler (2015). Specifically, in examining the importance of coworkers in building the resource base for fellow workers, their study suggests that reciprocity could be an important factor in developing social capital and building a resource gain cycle among coworker pairs. As such, extroverts may feel concerned about maintaining social capital at work. Time and energy that is spent on maintaining social capital would possibly lead extroverts to have fewer resources available to use in the family domain. This heightens, rather than reduces, the experience of work-family conflict.

Further post hoc analysis suggests that extroverts are likely to engage in all three types of resource development at work instead of simply engaging in social capital development. Indeed, in regards to the link between extraversion and human capital development, Zimmerman et al. (2012) suggested that the ambition aspect of extraversion would likely drive extroverts to “get ahead” in their job and career through improving their competency of performing the job. Also, Chiaburu et al. (2013) work suggests that extroverts may get ahead in their career and maintain their social status/reputation through engaging in helping behavior at work. The reason for detecting a larger indirect effect through altruistic capital development, rather than social capital development, might be attributable to the specific measurement being used in the study. Conceptually, although both social capital development and altruistic capital development are social oriented, the two constructs emphasize different aspects of social

resources, with the former focusing more on hierarchical status, and the latter one dealing more with providing benefits to others. The mini-IPIP is a measure primarily focusing on the “sociability” facet of extraversion rather than ambition or reward sensitive facet of extraversion. Therefore, it is not surprising to find a stronger indirect effect of extraversion on work-family outcomes through altruistic capital development rather than social capital development.

The dissertation also contributes to the COR theory by testing the theory as a motivational theory (to examine how people are intentional in directing investment in resource). The central tenet of COR theory is that people are motivated to gain resources and avoid resource loss, and thus implicitly suggests the intentional nature of people when it comes to the notion of resource development. Yet prior research has rarely considered motivation as part of the foundation of resource-relevant constructs. In this dissertation, motivational components are incorporated into the following constructs: human capital development, social capital development, and altruistic capital development, which serve as resource development processes that explains how people may experience work-family conflict (enrichment) differently. A goal-specific definition of resources is adopted as well. Underscoring motivation as a basic property of resource-relevant constructs within the context of COR theory contributes to a more sophisticated nature of resource development processes.

Additionally, by extending the resource investment perspective of COR theory to the work-family literature, this dissertation is one of the first attempts to explore a double-edged sword effect of resource development on both work-family conflict and

work-family enrichment and therefore provide theoretical framework to test the positive and negative experiences of work-family interaction using an integrative fashion. A recent review noted that past research has focused much on resource gains that are associated with resource investment, while overlooking the resource losses or some downward pressure in the process of developing and growing resources through resource investment (Halbesleben et al., 2014). The extant work-family literature provides employees with an unbalanced view in regards to the potential benefits and costs involved in developing resources at work. Results based on the mediational model and the test of indirect effects highlight the costs of resource development through investing in resources and the resulting work-family conflict in addition to the benefits of resource development and the resulting work-family enrichment. The finding of the double edged effect of resource investment also support Baer et al.'s (2015) work in which they applied COR theory and found that feeling trusted—a type of resource—could lead to a depleting experience as well as an energizing one.

In an exploratory manner, this dissertation also use a longitudinal design with three repetitive measurement three weeks apart across each time point to explore the time-based boundary condition of COR theory (Halbesleben & Wheeler, 2015). Specifically, this dissertation tests a reciprocal model considering both hypothesized causal direction and reversed causal direction simultaneously. The longitudinal model fails to find support for the originally hypothesized direction of effects. The findings suggest that the measurements of resource development and work-family outcomes three weeks apart have not captured the actual resource fluctuation and change in work-family

experience over time and thus failed to capture a mediation effect that would have been captured using a different time lag between measurements (Demerouti et al., 2004). Therefore, future studies should carefully explore the appropriate time frame so that resource fluctuation could be captured accurately.

Despite that the data did not support the longitudinal reciprocal model, the finding revealed a reversed causality for the hypothesized chain of constructs being investigated. Specifically, opposite to what is hypothesized using a time lag design: conscientiousness → human capital development at work → work-family outcomes, the reversed causality suggested that people who are high in conscientiousness are more likely to experience work-family enrichment, which in turn leads to more engagement in human capital development at work. Theoretically, this reversed causation integrates two theoretical perspectives—the “resource gain spiral” and “source attribution” perspectives in the work-family literature. This finding is also consistent with Mark’s (1977) role expansion theory and expands Grzywacz et al.’s (2007) framework, which will be elaborated as follows. First, the finding supported a “resource gain spiral” perspective, one important aspect of Hobfoll’s COR theory. Applying gain spirals to the current case, conscientious individuals who have a good resource foundation are more likely to gain additional resources/expand their resource reservoir. Accordingly, such individuals are better positioned for further resource gains. In other words, conscientious people are more likely to develop their human capital at work primarily because they are in better positions to transmit and utilize resources from work domain to family domain.

Second, this reversed relation seems to function according to the source attribution perspective in the work-family literature (McNall, Nicklin, Masuda, 2010; Shockley & Singla, 2011; Wayne, Musisca, & Fleeson, 2004). According to the source attribution perspective, when conscientious people experience work-to-family enrichment, they are likely to appreciate the work role which is perceived as the originator of the resource generation. Thus, they are more likely to continuously invest in a work role to further grow their human capital at work. The similar notion has been addressed in Wayne et al.'s (2004) work: "it may be that when individuals make attributions about the benefits of one role to the other, this primarily results in more positive affect and behavioral investment in the role seen as providing the benefit" (p. 124).

Third, the finding is also consistent with Mark's (1977) role expansion theory, which suggests that "activities in managing multiple roles are necessary to stabilize the production of human energy, and even while we are spending it we are also converting more of it for later use" (Lu, 2011, p. 396). Consistent with this insight, the finding suggests that resource development requires time, and people who are resourceful in the first place (conscientiousness) are likely to successfully handle resource transition and application across domains (work-family enrichment), which help them devote energy to gain more human capital at work.

Lastly, the finding supports and expands the resource-gain-development framework that is proposed by Grzywacz and his colleagues (2007). Similar to the resource-gain-spiral perspective, their framework suggests that resources can be utilized

to enable work-family facilitation. In particular, the authors noted that personal characteristics may contribute to work-family facilitation, which includes several aspects, such as the development of new skills and perspectives (developmental gains), positive emotion (affective gains), economic, social, or health assets (capital gains), and greater efficiency (efficiency gains). And work-family facilitation can be expected to positively influence work domain functioning. Yet as of for now, the perspective of resource-gain-development has not been much empirically tested. A handful of existing studies have majorly focused on attitudinal or performance-relevant outcomes of the positive effect of “work” on “family” (e.g., Odle-Dusseau et al., 2012). Accordingly, the longitudinal reversed mediation detected in this dissertation suggests that resource development such as human capital development could be one important element of positive work domain functioning in addition to attitudinal (e.g., job satisfaction) or performance-relevant outcomes.

### **Limitations and Future Research**

The current dissertation is not without limitation, which should be noted. First, future studies should take the context of resource investment into account. However, because the focus of this dissertation was on exploring the complexity of how personality factor are linked with work-family outcomes, boundary conditions such as culture (termed as macro resources in ten Brummelhuis & Bakker, 2012) or job characteristics (termed as contextual resources in ten Brummelhuis & Bakker, 2012) were not examined in this dissertation. It would be fruitful for future research to provide a more integrative approach examining the self-regulatory resource development process

in which micro resources are developed within a system of macro resources (e.g., Courtright et al., in press). This approach also helps to distinguish different aspects of resources—characteristics of the person as antecedents (identified as personal resources by Hobfoll, 1989, 2001; identified as key resources by ten Brummelhuis & Bakker, 2012; Thoits, 1994), the cultural or job context in which one is embedded (identified as macro resources by Hobfoll, 2001; ten Brummelhuis & Bakker, 2012), self-regulatory based resource development (Baumeister, Heatherton, & Tice, 1993; loosely termed as resource adaptation in Hobfoll, 2002), and resource accumulation or losses during the interaction between one’s work and family life (ten Brummelhuis & Bakker, 2012).

Second, results for the longitudinal process model suggest that a time lag of three weeks did not capture the changes in resource development and work-family experience over time. Future studies should continuously test COR theory as a dynamic theory when applied to work-family literature. For instance, future studies can study whether the manner in which resource processes play out depends on specific types of resources under examination. For instance, resources might range from more volatile to more structural based on their transience, with instrumental help being more volatile, and with skills, perspectives, and social network being more structural (ten Brummelhuis & Bakker, 2012). Future studies can use a growth modeling technique, as it allows one to “model both the mean changes in resources as well as the rate with which those resources change” (Halbesleben et al., 2014, p.22). Future studies should also specify the appropriate time lag among investigated variables to assess change in resources over time. It would also be beneficial for future research to answer several questions that are

posed in Ployhart and Vandenberg's (2010) review of developing a theory of change using the longitudinal data, including "which variables are expected to change, why they are changing, and the nature of dynamic relationships over time" (p.98).

Third, despite the confirmation of most hypotheses using a time-lag design, the data based on this design are ultimately correlational; as Ployhart and Vandenberg (2010) suggested, "a time-lag design is simply a variant of cross-sectional design" (refer to Cole & Maxwell, 2003 and Maxwell & Cole, 2007 for the pitfalls using cross-sectional data to model mediation). According to Stone-Romero (2011), mediation modeling as "a causal modeling method are incapable of converting data from a nonexperimental study into data that provide a firm and a legitimate basis for inferences about cause" (p.60). In order to make more rigorous inferences about the causal relations implied by the present theoretical model, an experimental design with random assignment could be utilized to rule out alternative explanations.

### **Contribution to Practice**

The findings of this dissertation offer important practical implications for organizations aiming to prevent individuals' experience of work-family conflict and promote employees' experience of work-family enrichment. Specifically, the results suggest that the positive indirect effect of conscientiousness on work-family conflict and enrichment operates through human capital development and altruistic capital development. From the employees perspective, for conscientious individuals who are interested in developing resources such as skills, knowledge, abilities, and collaboration with others so as to enable work-family enrichment, they should pursue nonmandatory

development activities in areas such as career planning, job-related learning and training, and work-based development (Birdi et al., 1997; Hurtz & Williams, 2009). They would also need to engage in teamwork activities and provide assistance to others (Mount, Barrick, & Stewart, 1998). From the organizational perspective, organizations can promote opportunities for conscientious individuals to develop human capital and altruistic capital, and more specifically through providing job-related learning and training programs and by designing a job that allows skill/task variety and collaboration among employees through helping with each other.

The findings suggest that extroverts are likely to engage in all three types of resource development at work, which in turn leads to work-family conflict and enrichment. To promote the beneficial effect of resource development leading to work-family enrichment, it would be beneficial for organizations to utilize a bundle of interventions that support extroverts to develop human capital, social capital, and altruistic capital. Specifically, to promote human capital development, it is recommended to implement training and development programs to help extroverts to acquire/refine social and task skills, abilities, knowledge; to promote social capital development, organizations can implement mentorship programs to help extroverts build connections with their upward contacts such as mentors and experienced people (Blickle et al., 2009); to promote altruistic capital development, organizations can structure the work through the use of team as ways to provide opportunities for extroverts to help others (Porter et al., 2003).

To mitigate experience of work-family conflict as a result of being substantially involved in resource development at work, organizations should focus ways to help individuals store their energy at work based on their personality types. This is because the results suggest that resource development may consume one's energy and make people feel less motivated to deal with family duties, which ultimately leads to work-family conflict. Organizations can focus on work recovery related interventions to help individuals restore their energy and offset the fatiguing experience associated with resource development (Sonnentag & Fritz, 2007; Sonnentag, 2003). For instance, to reduce fatigue at the end of the workday, organizations should train employees to take advantage of workday breaks (Troughakos, Hideg, Cheng, & Beal, 2014). Specifically, conscientious individuals should be encouraged to engage in relaxation rather than engaging in human capital development and altruistic capital development during breaks. Extroverts should be encouraged to engage in relaxation rather than engage in any kinds of resource development during breaks. In doing so, employees are expected to conserve personal resources to deal with family obligations after work.

Also, given the finding of the indirect effect of agreeableness on work-family conflict and enrichment through altruistic capital development, managers should recognize and reward agreeable employees' efforts that are put into going beyond the call of duty so as to satisfy their needs of belongingness. In order to offset the negative effect of altruistic capital development leading to work-family conflict, managers should also encourage employees who are high in agreeableness to focus on what they might gain from engaging altruistically, instead of just focusing on what they might lose.

Furthermore, the results of a longitudinal design show stability in the variables over time. That is, the processes of resource development, as well as employees' experience of work-family conflict and enrichment, takes time to play out. This finding suggests that managers should allow time for results to be achieved when evaluating the effectiveness of the aforementioned interventions.

### **Conclusion**

Drawing on a resource based process model and using a sample of 126 full-time employees who are married or in a long-term relationship, the findings suggest that the relationships between three personality traits (conscientiousness, extraversion, and agreeableness) and the more distal criteria (work-family conflict and enrichment) were due to the indirect effects of resource development processes (human capital development, social capital development, and altruistic capital development). By testing the resource investment perspective of Conservation of Resource Theory, the results suggest that resource development at work had a dual effect, leading to both work-family conflict and work-family enrichment. The contribution of this dissertation to organizations and society is to provide employees and managers a balanced view of resource development at work so that individuals with different personalities may utilize different organization interventions to offset the negative effect of resource development and enrich the positive effect of resource development. In doing so, employees are expected to experience less work-family conflict but more work-family enrichment.

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## APPENDIX

### **Personality Scale** (Donnellan, Oswald, Baird, & Lucas, 2006)

#### Conscientiousness

1. I get chores done right away
2. I put things back in their proper place
3. I like order

#### Extraversion

4. I am the life of the party
5. I talk a lot
6. I talk to a lot of different people at parties
7. I like to be the center of a room

#### Agreeableness

8. I sympathize with others' feelings
9. I interested in other people's problems
10. I feel others' emotions
11. I am really interested in others

### **Human Capital Development Scale** (Birdi, Allan, & Warr, 1997)

To what extent do you strive to engage in the following behaviors (with 1 = almost never strive to 6 = very often strive)?

To achieve my professional goals ...

1. I attend training courses

2. I participate in work-based development activities
3. I get involved in preparations for a new job
4. I take on roles or tasks additional to my normal job
5. I visit the training and development center to develop *job-related* knowledge and skills
6. I visit the training center or use the employee development program to develop *non-job-related* knowledge and skills (e.g., studying a foreign language)
7. I discuss future development plans with my manager
8. I am actively involved in implementing and revising my development plan
9. I search for career or personal development opportunities

**Social Capital Development Scale** (Ferris et al., 2005)

To what extent do you strive to engage in the following behaviors (with 1 = almost never strive to 6 = very often strive)?

To achieve my professional goals ...

1. I spend a lot of time and effort networking with influential others at work, to increase my influence
2. I build relationships with influential people at work, to increase my influence
3. I get to know a lot of important people and stay well-connected, to increase my influence
4. I spend a lot of time at work developing connections with influential others
5. I rely on connections and networks to make things happen at work
6. I develop a large network at work, to get support when I need to get things done

**Altruistic Capital development Scale** (Lee and Allen, 2002)

To what extent do you strive to engage in the following behaviors (with 1 = almost never strive to 6 = very often strive)?

To achieve my professional goals ...

1. I help others who have been absent at work
2. I willingly give my time to help others who have work-related problems
3. I adjust my work schedule to accommodate other employees' requests for time off
4. I go out of the way to make newer employees feel welcome in the work group
5. I show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations
6. I give up time to help others who have work or non-work problems
7. I assist others with their duties
8. I share personal resources with others to help them do their work

**Work-to-family Conflict Scale** (Carlson, Kacmar, & Williams, 2000)

Please rate how much you disagree/agree with each of the following statements.

1= strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree

1. My work keeps me from my family activities more than I would like.
2. The time I must devote to my job keeps me from participating equally in household responsibilities and activities.
3. I have to miss family activities due to the amount of time I must spend on work responsibilities

4. When I get home from work I am often too frazzled to participate in family activities/responsibilities.
5. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.
6. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy
7. The problem-solving behaviors I use in my job are not effective in resolving problems at home.
8. Behavior that is effective and necessary for me at work would be counterproductive at home.
9. The behaviors I perform that make me effective at work do not help me to be a better parent and spouse

**Work-to-family Enrichment Scale** (Carlson, Kacmar, Wayne, & Grzywacz, 2006)

Please rate how much you disagree/agree with each of the following statements.

1= strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree

1. My work helps me to understand different viewpoints and this helps me be a better family member
2. My work helps me to gain knowledge and this helps me be a better family member
3. My work helps me acquire skills and this helps me be a better family member
4. My work puts me in a good mood and this helps me be a better family member
5. My work makes me feel happy and this helps me be a better family member

6. My work makes me cheerful and this helps me be a better family member

7. My work helps me feel personally fulfilled and this helps me be a better family member

8. My work provides me with a sense of accomplishment and this helps me be a better family member

9. My work provides me with a sense of success and this helps me be a better family member