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An Examination of Race, Socioeconomic Status, and Individualism-Collectivsm as Moderators of the Work/Family Antecedent and Work-Family Conflict Relationship

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AN EXAMINATION OF RACE, SOCIOECONOMIC STATUS, AND

INDIVIDUALISM-COLLECTIVISM AS MODERATORS OF THE WORK/FAMILY

ANTECEDENT AND WORK-FAMILY CONFLICT RELATIONSHIP

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To: Interim Dean Michael R. Heithaus
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This thesis, written by Tyler James Stout, and entitled An Examination of Race, Socioeconomic Status, and Individualism-Collectivism as Moderators of the Work/Family Antecedent and Work-Family Conflict Relationship, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this thesis and recommend that it be approved.

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ABSTRACT OF THE THESIS

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Professor Jesse S. Michel, Major Professor

This study examines the role of race, socioeconomic status, and individualism-collectivism as moderators of the relationship between selected work and family antecedents and work-family conflict and evaluates the contribution of energy-based conflict to the work-family conflict (WFC) research. The study uses data obtained from a survey questionnaire given to 414 participants recruited from an online labor market. Study hypotheses were tested through structural equation modeling. The results indicate that while moderating effects were slight, a proposed model where energy-based conflict is included outperforms traditional time/strain/behavior-based models and that established variables may drop to non-significance when additional variables are included in prediction. In addition, novel individual difference variables such as individualism and collectivism were demonstrated to have effects beyond moderating antecedent-outcome relationships in the model. The findings imply that WFC models would benefit from the inclusion of variables found in the current study.

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CHAPTER I

INTRODUCTION

Between-role conflict, also known as interrole conflict, occurs when competing demands and expectations from one role in an individual's life inhibit adequate performance in another (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). While individuals usually have several role domains, the two that are generally the most salient are the work domain and the family domain. As such, a body of research has emerged that examines interrole conflict between these two domains, known as work-family conflict, or WFC (Greenhaus & Beutell, 1985). Several trends affecting the makeup of the workforce in the United States necessitate a nuanced approach to research in this area. For example, the increasing prevalence of women in the workplace, and the concordant prominence of dual-earner couples (Galinsky, Aumann, & Bond, 2008; Matos & Galinsky, 2012) have changed the distribution of role responsibilities for both men and women. In addition, the racial makeup of the American workforce is increasingly diverse both now and for the foreseeable future (Hecker, 2005; Matos & Galinksy, 2012; Toossi, 2002) further increases the variety of potential work-nonwork interactions that the modern employer must consider in order to adequately provide a supportive working environment for all employees. Indeed, most employers offer some sort of assistance in order to help employees cope with WFC (Matos & Galinsky, 2012). However, both the monetary and immaterial cost of offering these programs requires an adequate understanding of the nature of the workforce, so that organizations do not waste resources providing assistance that employees don't make use of.

Already much progress has been made in the research and understanding of interrole conflict in general and work-family conflict specifically in the past half-century. Researchers have explored the effects of interrole conflict on individual stress (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964). They have clarified the various types of cross-role conflict (Greenhaus & Beutell, 1985) and have developed extensive frameworks and models for describing the nature of WFC (Frone, Russell, & Cooper, 1992; Frone, Yardley, & Markel, 1997; Kopelman, Greenhaus, & Connolly, 1983; Michel, Mitchelson, Kotrba, LeBreton, & Baltes, 2009). In addition, other research has examined specific populations (Grzywacz et al., 2007) or described which factors contribute to the emergence of WFC (Byron, 2005; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011), whether fostered by both situational demands (Ford, Heinen, & Langkamer, 2007) or by individual differences (Allen et al., 2012; Michel, Clark, & Jaramillo, 2011). Still other research has identified some of the potential outcomes associated with interrole conflict (Kossek & Ozeki, 1998; Mesmer-Magnus & Viswesvaran, 2005).

Nonetheless, there is still room for improvement of the literature. Noticeably, the body of work-family conflict research has remained focused primarily on professionals (Lambert, 1999) and on Whites (Grzywacz et al., 2007). However, as the constituency of the workforce diversifies both intra-nationally, with minorities expected to represent an increased proportion of American workforce in coming years (Toossi, 2002), and inter-nationally, with the predominance of multinational corporations and organizations that rely on the input of employees across economic and cultural strata an important consideration for applied practitioners (Hui & Triandis, 1985; Ryan, Chan, Ployhart, & Slade, 1999), the literature would be well-served by research that explores racial,

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socioeconomic, and cultural-based perspectives on the emergence of WFC. Indeed, additional research on racial, socioeconomic, and cultural-based perspectives is needed to better craft and maintain organizational interventions and work environments that are tailored to the needs of an array of individuals, instead of a limited demographic subsection.

However, accounting for WFC, even within a specific organization or workgroup, can be a challenge on its own, and different cultural and racial subsets of employees in an organization can compound the difficulty of addressing WFC considerably, particularly when one organization has branches in multiple countries. An organization wishing to be successful in the global marketplace needs to be aware that people from different cultures may respond differently to similar situations. This drive creates the need for researchers to examine various constructs in multiple cultures. Most research is conducted using participants from North America; with research using European participants following closely behind. Clearly this excludes several nations and cultures that are playing an increasingly important role in the global economy. These individuals and cultures represent a potential new frontier not only for WFC research for its own sake, but also for organizations seeking to understand and expand into new markets and the workforces that accompany them.

Even within a single company located in a single culture, not all employees have the same status and resources. Most research to this point has focused on employees with higher-status jobs in an office environment, more commonly known as white-collar employees. In contrast to white-collar employees, blue-collar employees are individuals with lower-status occupations. In general, blue-collar occupations require less education,

and are thus distanced researchers, who often hail from institutions of higher education. This experiential distance is exemplified by the difficulty of arriving at an exact definition of the terms "white collar" and "blue collar." While often used as a categorical proxy for socioeconomic status (SES), the exact operationalization of what constitutes white/blue collar membership is often ambiguous or undefined. Often other group membership indicators, such as job title (e.g., Toppinen-Tanner, Kalimo, & Mutanen, 2002) or a knowledge-based/skilled worker (white collar) and manual labor/unskilled worker (blue collar) dichotomy (e.g., Poppleton, Briner, & Kiefer, 2008) are instead used to categorize individuals in a white-blue collar framework.

Since the blue-collar demographic has been left largely untouched in WFC research with a few exceptions (e.g., Grzywacz et al., 2007; Kossek, Barber, & Winters, 1999; Poppleton, Briner, & Kiefer, 2008) researchers should concentrate on areas outside of their own culture, whether that means culture demarcated by a map or by income. This is what the current study attempts to address: using established antecedents of work-family conflict (Michel et al., 2011), it attempts to assess any differences in the relationships between work and family antecedents and work-family conflict, particularly in regards to the moderating influence of three main aspects: race, SES (operationalized by education, occupational prestige, and income), and Hofstede's (1984) individualism-collectivism (IC) dimension of culture.

CHAPTER II

LITERATURE REVIEW

The traditional household, with a single-breadwinner and a single homemaker has been eroded and replaced by the emergence of dual-income, single-parent, and extended-family households (Bureau of Labor Statistics, 2010; 2011; Child Trends, 2011). The demographic characteristics of workers, particularly in the United States, is also changing, with women and minorities acquiring greater social mobility and holding positions traditionally held only by white males (Andres, Moelker, & Soeters, 2012; Bedeian, Burke, & Moffett, 1988). These changes mean that organizations must provide interrole conflict interventions that suit the needs of several types of employees.

Additionally, the spread of globalization has affected many areas of study, and psychology is no exception. International journals are now commonplace, and although most are published in English, researchers and the problems they explore are not limited to concerns held only by speakers of English. Indeed, many issues across all fields of psychology are being examined between cultures, including WFC. Nonetheless, the examination of race, SES, or culture's impact on WFC perceptions usually occurs either at a surface level, secondarily to other analyses, or without a contrast group (e.g., Frone, Russell, & Cooper, 1992; Grzywacz et al., 2007; Spector et al., 2004). WFC is a conceptualization of what many people have experienced for centuries: the collision of roles and responsibilities between one's working life and one's home life (Kahn et al., 1964). The history and constituency of WFC is detailed below, but it should be noted that WFC has traditionally been examined by focusing primarily on white-collar Caucasian workers. However the nature of work-family interaction can differ between cultures and

races (Grzywacz et al., 2007; Luk & Shaffer, 2005; Spector et al., 2004; Spector et al., 2007; Wang, Lawler, Walumba, & Shi, 2004; Zhang, Griffeth, & Fried, 2012), especially when those cultures differ in terms of individualistic-collectivistic orientation (Aryee, Fields, & Luk, 1999, Aryee, Luk, Leung, & Lo, 1999; Spector et al., 2007; Yang, Chen, Choi, & Zou, 2000). In addition, the majority of WFC research has, to this point, been focused on white-collar workers (Grzywacz et al., 2007; Lambert, 1999). Thus, it is important for the flow of research in the work-family domain to consider individuals across economic, cultural, and racial domains in order to provide organizations with the means to provide interrole conflict policies that suit the needs of all employees.

The current research proposes to synthesize the above, relatively novel, considerations into a model incorporating relatively established WFC antecedents, and offer consideration of moderating variables of the WFC mechanism in order to supplement, but not supplant, moderating variables already established in the WFC literature. In so doing, the current research aims to further the literature with the hope that the added nuance provided by these variables will further both research and practical applications related to the work and family domain.

Work-Family Conflict

Before looking at how WFC affects different workers in different ways, a more detailed explanation of WFC is needed. Work-family conflict as a construct emerged from role theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) which identifies roles as the responsibilities expected by role originators (e.g., supervisors, spouses, etc.). Work-family conflict occurs when expectations in one of these domains (i.e., work or family) causes role responsibility incompatibilities in another domain. The original

understanding of work-family conflict was not directional (Greenhaus & Beutell, 1985; Carlson, Kacmar, & Williams, 2000): when work roles and family roles conflict, overall WFC arises. However, since its inception, WFC has come to refer to more than overall conflict. More specifically, when role expectations at work cause conflict with one's roles at home, then the phenomenon is labeled as work interference with family, or WIF conflict. However, when the reverse is true, and role expectations in one's family life conflict with role expectations at work, then the individual is said to experience family interference with work, or FIW conflict (Carlson, Kacmar, & Williams, 2000; Netemeyer, Boles, & McMurrian, 1996). Research has supported the proposition that WIF and FIW are two distinct and reciprocal constructs (Mesmer-Magnus & Viswesvaran, 2005). In order to prevent confusion between directional conflict and the general work-family conflict construct, the present paper will use WIF or FIW when distinctions between directionality is needed, and WFC to refer to the general construct.

Regardless of direction, conflict can manifest in three main ways: time-based, strain-based, or behavior-based (Greenhaus & Beutell, 1985). Greenhaus and Beutell suggest that WFC occurs when the incompatibility of work and family creates role pressures on the individual. Time-based conflict occurs when time demands from one role inhibit performance in another. High workload and inflexible work hours, for example, would create time-based conflict. Behavior-based conflict manifests when behaviors transferred from one domain, such as behavioral habits and role expectations, inhibit adequate role functioning in another. A job that requires its employees to be secretive and maintain confidential information, for example, may create behavior-based conflict when the employee is expected to be open and warm at home. Lastly, strain-

based conflict occurs when stress generated in one role spills over into another role and impedes performance.

While the majority of research on WFC has been conducted using the three conflict types mentioned above, it should be noted that more recently Greenhaus, Allen, and Spector (2006) have suggested that strain-based conflict should be further distinguished as energy-based conflict and strain-based conflict, where energy-based conflict refers to physical or emotional exhaustion, and strain-based conflict implies the contagion of negative emotions. This potential four-conflict-type model could further refine research in the work-family sector, but as yet research utilizing it has not emerged (for exceptions see Grandey, Cordiero, & Crouter, 2005; Kato & Yamazaki, 2009; Small & Riley, 1990).

Antecedents of WFC

In line with role theory (Kahn et al., 1964), work-family conflict is thought to result from role pressures within each domain and competing demands between domains. Previous meta-analytic research (Byron, 2005; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011) has identified four central domain-based antecedents of WFC: role stressors, role involvement, social support, and work/family characteristics. These four antecedent categories are the same between domains, but the variables in each can differ. For example, social support is important in both domains, but the specific sources of this support differ between domains; social support could originate from coworkers or supervisors in the work realm, but from spouses or siblings in the family setting. Moreover, Michel et al. (2011) suggested that among domain-specific antecedents of work-family conflict, certain indicators, specifically role overload, role conflict, and

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social support from both the work and family domains, are the strongest indicators of both WIF and FIW. Accordingly, the present research proposes to use these work and family domain antecedents in an effort to maintain parsimonious model construction while still making use of the larger bandwidth provided by several predictors from a variety of sources.

The theoretical link between role stressors and WFC can be supported by role theory (Kahn et al., 1964). Specifically, when the membership in one domain makes demands that compete with demands resulting from membership in another domain, conflict between role domains ensues. Research has identified several subtypes of stressors resulting from role demands. First, role conflict occurs when an individual experiences incompatible role demands (from one or multiple senders) within the role domain (Kahn et al., 1964; Kopelman, Greenhaus, & Connolly, 1983). Second, role ambiguity occurs when role demands are unpredictable or unclear (Glazer & Beehr, 2005; Kahn et al., 1964). Finally, the third role stressor, role overload, occurs when an individual perceives that the resources they have available is not sufficient to properly address the role demands made of them (Bachrach, Bamberger, & Conley, 1990; Caplan, Cobb, & French, 1975). As mentioned above, Greenhaus and Beutell (1985), through the lens of work-family conflict, suggested that these roles stressors, when impairing role responsibilities across domains (work and family, in this case) would create time, strain, and/or behavior-based conflict.

However, role domain mechanisms exist that can lessen the perception of conflict, even when role stressors are present. One of these mechanisms is social support. Social support refers to the amount of assistance provided by others in terms of emotional

concern, instrumental aid, information, or appraisal (Carlson & Perrewe, 1999; House, 1981). Social support has been argued by many researchers (Frone et al., 1997; Greenhaus & Beutell, 1985; Greenhaus & Parasuraman, 1999; Michel et al., 2011) as a potential antecedent that is negatively related to work-family conflict, suggesting that it helps reduce the development of WFC. This relationship is often explained via resource drain theory (Eckenrode & Gore, 1990; Edwards & Rothbard, 2000; Piotrkowski, 1979; Small & Riley, 1990; Staines, 1980; Tenbrusel, Brett, Maoz, Stroh, & Reilly, 1995), which suggests that the presence of same-domain social support helps to ameliorate role pressures by providing the individual with extra resources. Thus, while role stressors are thought to increase interrole conflict, social support is expected to reduce it.

Naturally, not all antecedents of work-family conflict are domain-specific. Other, individual-centric antecedents, such as personality, have been recently examined, including affect, locus of control, and neuroticism (Allen et al., 2012; Michel et al., 2011). While conceptually distinct, both neuroticism and negative affect have been described using the same terms: increased levels of trait-based distress and anxiety (Costa & McCrae, 1992; Watson, Clark, & Tellegen, 1988). In addition, both neuroticism and negative affect have been proposed as antecedents of work-family conflict in studies on the subject (Carlson, 1999; Rantanen, Pulkkinen, & Kinnunen, 2005). Meanwhile, internal locus of control is defined as an individual's propensity to attribute outcomes to causes that originate from the individual or self versus outside forces such as chance (Rotter, 1966; Watson, Clark, & Tellegen, 1988).

In the context of WFC, there are several theoretical explanations as to why personality variables could be linked to WFC (Allen et al., 2012). Congruence theory

(Edwards & Rothbard, 2000), for example, postulates that a third variable (e.g., locus of control, negative affect/neuroticism) acts as a common cause of aspects of both domains. For example, someone who is highly anxious or exhibits high levels of distress is more likely to develop high levels of conflict, even in the absence of role stressors or despite the presence of support. Another theory, resource drain theory (Edwards & Rothbard, 2000), postulates that personality may function as a psychological resource (e.g., a highly conscientious individual may whether high demands better, due to efficiency in budgeting time) to reduce stressors (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Additionally, differential exposure and reactivity (Bolger & Zuckerman, 1995; Friede & Ryan, 2005; Greenhaus & Beutell, 1985) theories suggest that individual characteristics may make certain individuals more likely find themselves in highly stressful situations (exposure) and, once there, more likely to perceive stress and role conflicts (reactivity). Alternatively, broaden-and-build theory (Fredrickson, 2001) suggests that certain personality traits -- particularly positive ones such as positive affect -- may provide individuals with greater flexibility or resiliency, allowing them to cope in stressful situations by using positive emotions to subdue negative ones. However, regardless of the theory, personality factors can be conceptualized to give rise to the likelihood of an individual's perception of work-family conflict. It is for this reason that personality factors are often proposed to be antecedents of WFC.

The examination of the antecedents of work-family conflict has been extensive. From the outset of the construct researchers have suggested that certain stressors, such as role overload, may factor into WFC (Kahn et al., 1964). Later, as WFC models became more sophisticated, researchers attempted to explore the impact of various antecedents on

WFC (Frone et al., 1992; Frone et al., 1997). Recently, meta-analytic research in this area (Byron, 2005) has clarified and assessed the relative strength of antecedents provided by the research. Finally, very recent meta-analytic research (Michel et al., 2011) has sought to clarify and resolve these antecedents further, and has provided support for the emergence of certain distinct constructs as antecedents of WFC. Of these antecedents, some have been associated with the emergence of conflict in one direction, but not in the other. Job autonomy, for example, has demonstrated a relationship between WIF, but not FIW. In order to determine if the moderator variables in the current model have meaningful effects for both WIF and FIW conflict types, roughly equivalent antecedents are needed for both types of conflict. For example, it would be difficult to draw conclusions about the moderating effect of SES on WIF and FIW if work-role overload was measured but family-role overload was not. Thus, the current research uses three constructs that are represented in both domains and have been predictive of both same and cross domain conflict: role conflict, role overload (called the "stressor" antecedents in the present paper), and social support. Accordingly, the current study hypothesizes that:

H1a: Work-role conflict is positively related to WIF.

H1b: Work-role overload is positively related to WIF.

H1c: Organizational support is negatively related to WIF.

H1d: Family-role conflict is positively related to FIW.

H1e: Family-role overload is positively related to FIW.

H1f: Family support is negatively related to FIW.

As mentioned above, these antecedents are hypothesized to be related to cross-domain emergence of conflict, albeit more weakly, such that:

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H2a: Work-role conflict is positively related to FIW.

H2b: Work-role overload is positively related to FIW.

H2c: Organizational support is negatively related to FIW.

H2d: Family-role conflict is positively related to WIF.

H2e: Family-role overload is positively related to WIF.

H2f: Family support is negatively related to WIF.

Role involvement, while long suggested to play a central role in WFC (see Greenhaus & Beutell, 1985), has not been shown as a strong predictor of WIF or FIW. Recent meta-analytic research (Michel et al., 2011) has demonstrated that job involvement has only small or non-significant relationships with WIF and FIW, while family involvement shows only non-significant relationships with WIF and FIW. However, given that WFC research has generally not focused on examining WFC across varying socioeconomic levels, and that some research (e.g., Grzywacz et al., 2007) has described the blurring of between-role responsibilities for individuals of lower socioeconomic levels, the current research proposes to continue the inclusion of role involvement as an antecedent of WFC. However, recent meta-analysis (Michel & Hargis, 2008; Shockley & Singla, 2011) have suggested a source attribution explanation for WFC, as opposed to a cross-domain specific one. This explanation relies on appraisal theory (Lazarus, 1991), which suggests that when threatened and individual perceives the source of the threat negatively. For example, an individual demonstrating high levels of job involvement and presented with competing family-role demands may have reduced performance in the receiving work domain, but would attribute blame to source of the conflict in the family domain and thus perceive FIW conflict.

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H3a: Job involvement is positively related to FIW.

H3b: Family involvement is positively related to WIF.

SES may also directly impact how individuals experience work (Aquino, Galperin, & Bennett, 2004), and what they perceive as the relative demands of their domain roles. In addition, the benefits, drawbacks, and conditions of the work environment across SES levels (see Warren, Hoonakker, Carayon, & Brand, 2004) may also impact the relationship between conflict antecedents and the emergence of conflict. Given that individuals may vary where they draw self validation depending on the resources available to them (Aquino, et al., 2004), it is likely that low SES (low resource) individuals will seek instead to validate themselves through their family roles. High SES individuals, meanwhile, likely have made persistent effort to attain their position, and consequently are likely to draw validation from their careers. Thus:

H4a: SES is positively related to job involvement.

H4b: SES is negatively related to family involvement.

Demographic Moderators

The impact of the work, family, and individual environment on WFC does not stop with strictly antecedent relationships. Other variables may suppress or enhance the relationships between these antecedents and WFC. Three variables (gender, marital status, and parental status) have traditionally been put forward as moderators of WFC relationships (e.g., Archbold, 1983; Duxbury & Higgins, 1991; Eby, Casper, Lockwood, Bordeaux, & Brinley 2005; Gutek, Searle, & Klepa, 1991; Michel et al., 2011). As with antecedents of WFC, moderators of the work/family antecedent and WFC relationships have generally been conceptualized through role theory (Kahn et al., 1964). Using gender

as an example, role theory can explain an increased sensitivity to these antecedent and WFC relationships in women due to differential role expectations. In this case, as women are responsible for more family tasks than men, they may consequently put more emphasis on those roles. As a result, women may be more sensitive to the inhibitions brought about by certain role stressors. Marital or parental status may likewise make individuals more vulnerable to stressors that inhibit role performance.

The observed effect of these moderators has been modest and often has not provided the intuitive or expected results (e.g., Michel et al., 2011). It has been suggested (Cinamon & Rich, 2002) that between genders, work is more central to the identity of men, while family is more central to the identity of women, and thus conflict may derive not only from gender, but from the differential importance of each role. Indeed, support has been found for the differential effect of conflict perceptions between genders (Duxbury & Higgins, 1991; Gutek, Searle, & Klepa, 1991), with the relationship between hours spent in a role and conflict resulting from that role stronger for women than men (Gutek, et al., 1991) and some authors suggesting that separate models for WFC based on gender (e.g. Tharenou, Latimer, & Conroy, 1994). However, both primary studies (e.g., Eagle, Miles, & Icenogle, 1997) and meta-analytic reviews (e.g., Byron, 2005) have found mixed results for the impact of gender and parental/marital status: with gender affecting on the relationships between conflict and job autonomy and work-role ambiguity; marital status affecting the relationship between conflict and work-time demands, coworker support, and schedule flexibility; and parental status affecting the relationship between conflict and job stressors, coworker support, schedule flexibility, and how family-friendly the organization was. Interestingly, Michel et al. (2011) found

that the significant stressor-WFC relationships did not behave in the expected manner. For example, the relationship between job stressors and WIF actually decreased as the percentage of parents in the samples increased.

The current study suggests two alternative moderator variables that may more fully explain the work/family antecedent and WFC relationship: race and SES. The relevance of the former can be explained by role theory, the latter by resource drain theory. Although not unfamiliar to work-family research, these variables require more detailed discussion.

Race. While the consideration of race is not novel to work-family research, studies examining it as a potential factor in the conflict arena are very scant, with only a handful of studies (Grzywacz, Almeida, & McDonald, 2002; Grzywacz et al., 2007; Roehling, Jarvis, & Swope, 2005) examining the influence of racial differences on the antecedent-to-WFC relationship. Even when research has explored racial differences in the WFC domain, these examinations have been focused on specific groups (e.g. Grzywacz et al., 2007), which may inhibit external validity. Considering role conceptualizations, which feature prominently in role theory, may vary wildly depending on racial background (Markus & Kitayama, 1991), work-family conflict research, which is based on role theory, would especially benefit from research detailing racial variations.

Ignoring racial differences in the WFC arena is particularly problematic because the percentage of Hispanics and Asians in the workforce is expected to double by 2050 (Toossi, 2002), to 24% and 11%, respectively. Further, considering that five of the top 10 occupations will remain relatively unskilled in the near future (Hecker, 2005), and that racial minorities are disproportionally represented in nonprofessional jobs (Mosisa, 2002),

it is clear that the current and future workforce of the United States has been underserved by available research. Further, it is important to note that the current picture of immigration to the United States is changing. Using U.S. Census data, the Pew Research Center (2012) notes that Asians, not Hispanics, are currently the largest racial group immigrating to the United States. While the share of Hispanics immigrating to the U.S. has decreased, from about 59% in 2000 to about 31% in 2010, the percentage of Asians immigrating to the U.S. over the same time period has increased, from about 19% to about 36%. Further, the majority of Asian immigrants (61%) are likely to hold a bachelor's degree or better and Asian-Americans are more likely than any other racial group to hold a bachelor's degree (49% of Asians-Americans have a bachelors degree or better, as compared to 31% of whites, 18% of blacks, and 13% of Hispanics). Their median household income - $66,000 for Asian-Americans as opposed to a $49,800 for the general U.S. population - is also larger (PRC, 2012). Taken together, this not only means that non-white workers in the United States are diverse in terms of the type of work they do, it also means that, across different types of work, employees are racially diverse with both high and low SES occupations hosting individuals of all racial backgrounds now and into the future. Thus, research that accounts for cultural differences and does so across economic strata, separating the effect of SES and the effect of race is essential to an understanding of the workforce. From a theoretical perspective, the inclusion of race in WF models could help to define relationships among variables that have otherwise had an unclear impact on conflict perceptions. For example, support for the impact of gender as a moderator on the work-family relationship has remained mixed, only affecting two traditional antecedents of WFC (i.e., job autonomy and work

ambiguity) in recent meta-analytic research (Michel et al., 2011), and then not in

expected direction. However, other researchers (Grzywacz et al., 2007; Roehling et al.,

2005) have found gender differences in conflict perceptions among Hispanics. In this

way, the inclusion of race as a moderator of work-family conflict furthers the research

both theoretically and practically. Thus, given that previous research has suggested, but

not explored, how race may alter perceptions of the antecedent-to-WFC relationship

(Grzywacz et al., 2007; Markus & Kitayama, 1991; Roehling et al., 2005) the current

research examines the effect of race on the relationship between stressor (i.e., role

conflict and role overload) and social support antecedents and WFC, and suggests:

> H5a: Race moderates the relationship between work-role conflict, work-role
>
> overload, and WIF.
>
> H5b: Race moderates the relationship between organizational support and WIF.
>
> H5c: Race moderates the relationship between family-role conflict, family-role
>
> overload, and FIW.
>
> H5d: Race moderates the relationship between family support and FIW.

Socioeconomic Status. Another moderator variable included in the current

research is SES. Though SES is prevalent in the general psychology literature, it has not

been a priority of WFC researchers, which has drawn criticism from other authors

(Grzywacz et al., 2007; Lambert, 1999). Two recent meta-analyses included SES-type

variables as predictors of WFC: Byron (2005) included income; while Michel et al.

(2011) included income and job status. Even in these instances, the full impact of SES

was not considered as it is unlikely that SES itself directly creates perceptions of interrole

conflict, and it is more plausible that SES can serve to moderate the effect of other role

stressors on perceptions of interrole conflict. Thus, despite the mix of socioeconomic backgrounds present in many samples, the majority of work-family research has not yet examined the effects of work/family antecedents on WFC across economic strata.

As with other elements already present in WFC models, the inclusion of SES as a moderator variable is in line with resource drain and role theories (Edwards & Rothbard, 2000; Kahn et al., 1964). In terms of role theory, Michel et al. (2011) suggest that higher status jobs may require more responsibility and thus more affiliated role pressures. Consequently, any extra-role distraction from these demands may result in conflict perceptions because of the drain of resources from one domain to the other, as suggested by resource drain theory. For example, family demands that distract from work responsibilities would create FIW conflict.

The addition of SES as a moderator of work/family antecedents and WFC furthers the field theoretically because, as Christie and Barling (2009) point out, SES impacts the way individuals interpret their environments (Snibbe & Markus, 2005); and thus, across economic strata, individuals experience work differently (Aquino, Galperin, & Bennett, 2004). As Aquino et al. (2004) note, individuals deprived of resources are most likely to require social validation. In terms of the work/family antecedents and WFC relationship, this means that individuals in low-SES conditions may seek to validate themselves through their family, and thus should be sensitive to demands that are perceived to impact family role expectations. However, as noted by other research (Grzywacz et al., 2007), at very low levels of SES, the necessity of providing for one's family may make work demands imperative. In effect, this would mean that work is perceived as a "family role,"

which would help explain why participants in Grzywacz et al.'s study reported infrequent WFC perceptions.

Other research (Grzywacz et al., 2007; Warren et al., 2004) has noted that the job characteristics of lower-SES occupations are different from those of high-SES occupations. For example, low-status occupations may be more physically demanding than high-status ones. As a result, although high-SES individuals report longer working hours (Stansfield, Head, & Marmot, 1998), demands for physical energy may be greater for individuals in low-SES occupations. Thus, as Grzywacz et al. (2007) have noted, research involving individuals across economic backgrounds should incorporate not only the traditional time, strain and behavior-based conflict (Greenhaus & Beutell, 1985), but energy-based conflict as well.

Colloquially, SES is measured nominally (e.g., working-class, white-collar, middle-class, etc.). However, previous researchers (Christie & Barling, 2009; Krieger, Williams, & Moss, 1997) have suggested that there are three components to SES: income, occupational prestige, and education. While interrelated, these components are still distinct (Gallo & Matthews, 2003). The advantage of measuring all three components is that information that may be missed by one indicator of SES may still be captured by one of the two others. For example, a retired physicist still retains high levels of education and potentially prestige, despite low income. As noted before, previous WFC research has measured and tested the contribution of SES to the WFC domain. However, when it has done so, it has generally not incorporated all three indicators suggested by researchers who have examined in-depth the impact of SES on health outcomes (e.g., Christie & Barling, 2009). By examining SES using multiple facets, instead of merely employing

income as a proxy for SES, future research should be able to more accurately capture how this construct impacts the work/family antecedents and WFC relationship.

H6a: SES moderates the relationship between work-role conflict, work-role overload, and WIF.

H6b: SES moderates the relationship between organizational support and WIF.

H6c: SES moderates the relationship between family-role conflict, family-role overload, and FIW.

H6d: SES moderates the relationship between family support and FIW.

Individualism and Collectivism as a Moderator

Just as the scope of organizational research has been broadened to include domains outside of the workplace itself, so too has it seen an increased examination of larger scale variables that influence all domains of an individual's life. Among these concerns is the examination of the impact of national culture on an individual's experiences at work. Arguably the most well-known researcher to establish this field of inquiry is Hofstede, who attempted to set up a cultural framework to describe the differences between certain countries (1984, 2001). Hofstede (1984, 2001) grouped countries along several different dimensions, one of which was the measure of collectivism versus individualism in a culture. Individualistic cultures tend to focus on the needs and goals of the individual, where a high-quality life is one of individual achievement and success, self-actualization, and self-respect. Examples of highly individualistic countries in Hofstede's model are the United States, Australia, and the Netherlands. Countries and cultures scoring at the other end of the spectrum, on the collectivistic side of the scale, tend to be more focused on groups and group goals. For

example, people in collectivist cultures, according to Hofstede, do not seek to excel in order to attain status for themselves (that would be an individualistic goal) but rather to bring their group (e.g, school, family, workgroup, etc.) increased prestige and to avoid any actions that would reduce the status of these groups. In essence, Hofestede's framework has allowed social science researchers a foothold by which inter-cultural research can be framed and comparisons between subjects of disparate national identity can be made. Despite originally being conceived as a group-level construct, IC is now widely evaluated using self-report questionnaires and is often treated as an individual difference (e.g., Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 1995). The current research makes use of this development in order to further the WFC literature by incorporating IC as a moderator of the work/family antecedent to WFC process. The following sections will detail the development of the IC construct and suggest how it may be integrated into existing WFC models.

The Individualism-Collectivism Construct. Accurately defining the IC construct has proven difficult. For example, although IC is presented in Hofstede's research is a national construct, there are within-country differences in this orientation (e.g., not all Americans are individualistic). In addition, the individualist outlook implies certain underlying personal priorities (Oyserman et al., 2002; Triandis, 1995) such as maintaining a positive sense of self, feeling good about one's own achievements and opinions, and a self-definitional focus on abstract (rather than group-based) elements. In addition, an individualist's sense of well-being and life satisfaction can be drawn from open emotional expression and attainment of personal goals (Diener & Diener, 1995; Diener, Diener, & Diener, 1995; Tay & Diener, 2011). From a cognitive standpoint,

meanwhile, an individualist focuses on causes and judgments that are oriented toward the person, rather than social context (Newman, 1993).

Collectivists, meanwhile, have personal perceptions that are contingent on group membership (Markus & Kitayama, 1991), and value personal traits such as maintaining harmonious relationships with others and sacrificing for the common good (Markus & Kitayama, 1991; Triandis, 2001). They generally derive satisfaction from upholding and successfully completing social obligations and roles, restrain emotional expression, and are cognitively geared toward social context and roles (Morris & Peng, 1994). Therefore, when making attributions, individualists are more likely to make "trait" attributions and collectivists more likely to make "state" attributions (Oyserman et al., 2002). Finally, individualists and collectivists view the nature of in-groups and out-groups themselves in a different manner, with the collectivist preference for perceiving in-groups as important and thus stable and impermeable, while individualists prefer non-binding, impermanent group affiliations that may be abandoned if the costs of membership are perceived to be too high (Kim, 1994; Triandis, 1995).

Despite the clarification of the construct's implications for the individual's worldview on a surface level, researchers remain divided regarding where the exact lines that separate individuals and collectives themselves are drawn. For example, some authors (Chen, Brockner, & Katz, 1998) have attempted to assess how favorably one sees one's in-groups and how likely one is to appraise them favorably under different levels of performance. Others have examined the IC construct when in-groups are separated further. Rhee, Uleman, and Lee (1996), for example, examined kin (subdivided into parents, children, and relatives) versus non-kin. Hui (1988), meanwhile, split in-groups

into spouse, kin, neighbors, friends, and coworker, subgroups. Thus, while researchers tend to agree that collectivists emphasize and value in-group membership, these groups may vary depending on an individual's social roles.

In addition, the differentiation of IC subdimensions has also been explored. Some authors (e.g., Triandis, 1995; Triandis & Gelfand, 1998) have attempted to attach "vertical/horizontal" components to the construct, with horizontal individualists/collectivists emphasizing equality and vertical individualists/collectivists emphasizing hierarchy. Other authors (e.g., Brewer & Chen, 2007; Brewer & Gardner, 1996) have sought to separate the collectivist side of the construct into "relational" and "collective" subtypes in an effort to explain why differences in IC between cultures sometimes fails to emerge as strongly as expected (e.g., Oyserman et al., 2002). By doing so, they allow conceptual standardization that can be used to establish what constitutes an "in-group" (i.e., the collective that the collectivist is a part of). Thus relational collectivists are those who place an emphasis on harmonious relationships with those close to them, while group collectivists have a stronger duty to group welfare and conformity to group norms. The implication being that while two societies may both be collectivist, the cognitions and behavior of persons in one of the two societies may differ from those in the other, depending on how the collective is defined. Naturally, as theoretical discrepancy regarding the conceptualization of IC increases, disparity in the way it is measured likewise develops.

Measurement of Individualism-Collectivism. In tandem with increased attention to and conceptual clarification of the IC construct, there has been commensurate development of methods by which to measure it. While disagreement between

researchers regarding the precise nature of IC has made constructing universally-accepted measures difficult (Brewer & Chen, 2007), some headway has been made in the elucidation and assessment of the construct (e.g., Oyserman, et al., 2002). The most notable example of this is that while Hofstede (1984) originally conceived IC as unidimensional, with low scores on individualism being synonymous with being collectivism, research and development on the IC construct have led several researchers to treat it as orthogonal, with high or low scores possible on *either or both* individualism and collectivism possible (Jackson, 2006; Oyserman et al., 2002; Rhee et al., 1996; Triandis, 1995; Triandis, 1998).

Nevertheless, the number of measures that have been used to assess IC is many and varied. Oyserman et al., (2002), in an attempt to assess the measures in use, provide a meta-analysis in which they identify three main approaches that have been implemented in IC research. The first they refer to as *applying Hofstede*. Researchers relying on this approach, against the recommendation of Hofstede (1980), use his ratings as a direct proxy of measurement, thus implying that any differences between individuals in related to cultural differences between them (as measured in Hofstede's original study). As Oyserman et al. highlight, this approach relies on three assumptions: 1) the ratings are accurate across life domains, 2) the ratings are stable over time, and 3) the ratings are relevant at the individual level. While this is the least empirically sound of the three main approaches (Kitayama, 2002; Oyserman et al., 2002), many studies have used this approach, including research in the WFC domain (e.g., Spector et al., 2004, 2007).

The second approach identified is *IC rating scales*. This approach uses individual-level measurement to assess IC. This is a straightforward but important point, as this

transition begins to move IC into the realm of an individual difference, like engagement or affect, and away from a blanket national-level assumption. In doing so it avoids the problems of directly applying Hofstede's measurement. It is not without potential pitfalls of its own, however. As this method relies on declarative knowledge, there may be deeply imbedded assumptions and implicit practices that the respondent is unaware of at a conscious level and thus cannot report on, thus leaving culturally-based differences undetected (Fiske, 2002; Oyserman et al., 2002). This method also relies on a within-culture convergence. Finally, in addition to requiring a within-culture convergence (including understanding of questions and answers), this approach is also predicated on between-culture convergence on the nature of the questions (i.e., measurement equivalence). For a full review of IC rating scales, the interested reader is directed to see Oyserman et al. (2002).

Finally, researchers investigating IC differences can make use of *priming*. In this technique, participants have individualist or collectivist sentiments made salient to them and then complete the study measures (e.g., Brewer & Gardner, 1996; Oyserman, Sakamoto, & Lauffer, 1998). By doing so, researchers can make IC differences prominent and study culture as a dynamic process, forcing participants into individualistic or collectivistic conditions. However, these benefits come at the cost of increased experimental complexity and reduced ecological validity.

As the above section has described, there has been an important evolution in the approach that researchers have used to examine individualism and collectivism. What was once considered to be a trans-cultural inclination, IC has now evolved to allow for between-person variations within the same culture, instead of merely blanketing all

individuals of a given culture under the same general orientation. In addition, there has been a parallel increase in the sophistication of the conceptualization and measurement of IC. These factors together create a very different understanding of the IC construct, while maintaining the intent of the construct as it was originally conceived.

Integration of Individualism-Collectivism into WFC Models. For work-family researchers, the development of an IC construct that is not restricted to national-level analyses is advantageous. While much research has tackled cross-cultural or cross-national WFC (e.g., Aryee, Fields, & Luk, 1999; Korabik, Lero, & Ayman, 2003; Spector et al., 2004), intra-national work-family research has rarely considered the role of IC. When it has (e.g., Grzywacz et al., 2007), it has applied Hofstede's cultural dimensions, rather than directly measuring IC at an individual level. Given that the nature of the modern workforce is increasingly based on group-level directives, the impact of between-individual IC -- an understanding of how individuals define themselves and how they seek validation and self-worth -- in these environments is essential, as research in this area will have ramifications for organizational outcomes (Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006),

Theoretically, the inclusion of the IC dimension can be explained via role theory, just as with several other work and family-related constructs. Depending on their IC orientation, an individual may place varying cognitive and emotional weight on the expectations that others have of them in varying roles. As a result, individuals who place a high value on fulfilling certain social roles may be more sensitive to the effects of role stressors, exhibiting more strain than individuals who do not perceive this weight. In other words, collectivists, who put high value on group expectations (Oyserman et al.,

2002), may be more vulnerable to strain induced by role stressors than individualists, who do not. As mentioned before, despite being originally conceived as a dichotomous continuum in Hofstede's (1984, 2001) original research, the IC construct is currently regarded as a circumplex (Jackson, 2006; Oyserman et al., 2002; Rhee et al., 1996; Triandis, 1995; Triandis, 1998). As such, it is possible for an individual to score high and/or low on both individualism and collectivism. Thus, for the current research, the impact of both individualism and collectivism on the WFC relationship are evaluated. Accordingly, the current research proposes to explore how IC orientation affects the work/family antecedents and WFC relationship and proposes that:

H7a: Individualism moderates the relationship between work-role conflict, work-role overload, and WIF.

H7b: Individualism moderates the relationship between organizational support and WIF.

H7c: Individualism moderates the relationship between family-role conflict, family-role overload, and FIW.

H7d: Individualism moderates the relationship between family support and FIW.

H8a: Collectivism moderates the relationship between work-role conflict, work-role overload, and WIF.

H8b: Collectivism moderates the relationship between organizational support and WIF.

H8c: Collectivism moderates the relationship between family-role conflict, family-role overload, and FIW.

H8d: Collectivism moderates the relationship between family support and FIW.

Researchers in the IC arena (Diener & Diener, 1995; Diener, Diener, & Diener, 1995; Tay & Diener, 2011) have suggested that individualists tend to draw satisfaction from the attainment of personal goals and their own achievements (Oyserman et al., 2002). Collectivists, on the other hand, are thought to emphasize group membership as part of their identity (Markus & Kitayama, 1991) and derive satisfaction from successful upholding of role expectations (Morris & Peng, 1994). Given that the family unit is made up of more than one individual, collectivists, who emphasize the importance of in-groups, should thus feel particular affinity for their family. Meanwhile, individualists, who emphasize personal accomplishment, should place high value on their vocational achievement. As a result, the current research hypothesizes the following:

H9a: Individualism is positively related to job involvement.

H9b: Collectivism is positively related to family involvement.

Review of the Study Model

This research examines the impact work and family antecedents have on WFC moderated by race, SES, and IC. More specifically, the model seeks to employ established work-role antecedents (work-role conflict, work-role overload, and organizational support) in relation to WIF and family antecedents (family-role conflict, family-role overload, and family support) in relation to FIW (see Michel et al., 2011). These relationships are represented by Hypotheses 1a-f. In addition, the impact of these work and family antecedent variables on cross-domain conflict (e.g., work-role overload on FIW) are also be examined (Hypotheses 2a-f). In addition, role involvement, a traditional antecedent of same-domain conflict (Greenhaus & Beutell, 1985) is also present in the model for the current study, however in line with source-attribution models

the current research uses involvement as a cross-domain predictor of WFC (Hypotheses 3a-b). Despite being an established variable in other areas of stress-focused research (Christie & Barling, 2009), SES has not been emphasized by WFC researchers; however, the present study suggests that it both impacts role involvement (Hypotheses 4a-b) and is a moderator of the work/family antecedent and WFC relationship (Hypotheses 6a-d). In line with calls from previous researchers (e.g., Grzywacz et al., 2007), the present study also seeks to incorporate considerations of racial membership in work-family research, and includes race as a moderator of the work/family antecedent and WFC relationship as well (Hypotheses 5a-d). In an effort to synthesize cross-cultural and WFC research, a third moderator, IC, is also included in the model (Hypotheses 7a-d; Hypotheses 8a-d) and is hypothesized to affect the work/family antecedent and WFC relationship. Finally, given the impact of roles on identity (Kahn et al., 1964), and theoretical linkages of IC on identity (e.g. Markus & Kitayama, 1991), the model posits the impact of IC on role involvement (Hypotheses 9a-b). Thus, IC and SES play a dual role of both impacting role involvement (Hypotheses 4a-b; Hypotheses 9a-b) and moderating the work/family antecedent and WFC relationship (Hypotheses 6a-d; Hypotheses 7a-d; Hypotheses 8a-d) in the study model (see Figure 1).

CHAPTER III

METHOD

Participants and Procedure

  The aims of the current research necessitated a racially diverse sample. Using stratified random sampling helped the study obtain a final sample (N = 414) which was comprised of 29.5% (*n* = 122) Caucasian/white respondents, 23.4% Black/African American (*n* = 97) respondents, 21.5% Hispanic/Latino (*n* = 89) respondents, and 25.4% (*n* = 105) Asian/Pacific Islander respondents, with one respondent failing to indicate their racioethnic identity. This lone participant was included in all analyses except those pertaining to racioethnic differences. The resulting sample is fairly large, and meets even the most conservative suggested sample size for structural equation modeling analyses (e.g., Bentler & Chou [1987] suggested a 5:1 participant:variable ratio; Tanaka [1987] recommended a 20:1 participant:variable ratio). Since the current study involves a total of 14 variables (eight antecedents, two outcomes, and four moderators), the most conservative of estimates (Tanaka, 1987), would mandate only 280 participants. Thus, the current study's sample size of 414 (29.57:1 participants:variable) exceeds even the most demanding of estimates necessary to utilize SEM techniques. Another necessity in the current study is ensuring that the constructs involved apply to the participant pool. Since primary constructs of interest in this study revolve around work and family (e.g., work-role overload, WFC), participants who are currently employed at a meaningful level and have family obligations are preferred. Accordingly, all participants were required to work at least 30 hours a week and have family members or significant others in residence with them. To facilitate this, the present research employed Amazon's

Mechanical Turk, an online labor market environment in which employees (or "workers") are able to be recruited by employers (or "requesters"). These workers then perform tasks, referred to as Human Intelligence Tasks (HITs), in exchange for a monetary reward.

When workers reported to the website, the task associated with the current study appeared alongside other potential tasks provided by other requesters. The functionality of the website allows workers to sort available tasks using criteria such as the date the task was posted or the monetary reward offered for completing the task. The environment also allows potential workers to view a brief description of the offered task. After accepting the task workers were provided with a link to the online version of the survey questionnaire and the informed consent document associated with the current study. Participants were told the questionnaire would take approximately one hour to complete and would be composed of the measures described in more detail below. In addition, several manipulation items were included as part of the questionnaire in order to prevent respondent fraud (these items are described in the measures section). Participants had the option to exit the survey at any time and participation was strictly on a voluntary and anonymous basis. Participants who completed the survey were paid $1 in exchange for their participation. The current study followed all ethical guidelines provided by both the Institutional Review Board (IRB) and the American Psychological Association (APA) to protect study participants and ensure that the data they provided remains confidential. Although the online labor market approach to participant recruitment is a fairly recent development, published studies support its usage as a means of data collection for psychological research. Specifically, online labor markets tend to be more diverse and just as reliable as participant pools recruited from undergraduate college settings

(Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010). The respondents comprising the final sample were 55.8% male and reported working an average of 42.11 hours/week (*SD* = 6.07) and having an average household of 3.58 individuals living with them (*SD* = 1.32) at home with the average respondent household having 2.38 (*SD* = 2.11) children in residence at home.

Measures

Antecedents of WFC. Role overload, role conflict, social support, and role involvement were assessed in the work and family domains. Role conflict was assessed with the Rizzo, House, and Lirtzman (1970) eight-item measure of role conflict. Previous research (e.g., Carlson, 1999; Carlson & Perrewe, 1999) has adapted this scale to measure role conflict in both the work (α = .90) and family (α = .85) domains [alpha reliabilities reported from Carlson (1999)]. To assess role overload, a three item measure developed by Bacharach, Bamberger, and Conley (1990) to measure work overload (α = .64) was used. It was also adapted to measure family overload. Social support was measured by two different measures. A scale adapted from Eisenberger, Huntington, Hutchinson, and Sowa (1986) consisting of 16 items was used to measure perceived organizational support (α = .97), while a family support measure was adapted from King, Mattimore, King, and Adams (1995). The King et al. (1995) measure originally contained 44 items measuring the emotional (29 items, α = .97) and instrumental (15 items, α = .93) facets of support. In order to maintain roughly equivalent length between the organizational and family support scales this scale was adapted for the current research to include 15 items (11 emotional and 4 instrumental). The items chosen for inclusion are based on King et al.'s (1995) reporting of item-total correlations. Finally, job involvement and family

involvement was assessed with Kanungo's (1982) 10-item scale (α = .87), which is commonly used in the work-family literature (e.g., Frone, Russell, & Cooper, 1994, who reported α = .88 for both the work and family involvement variations of the measure). While all scales use a Likert-type response format, the number of response options vary per measure. Both variations (i.e., work and family) of the role conflict measure use a 1-5 scale and both variations of the role conflict measure used a 1-4 scale, while the organizational support measure will use a 1-7 scale, and the family support measure use a 1-5 scale. The current study obtained a coefficient alpha (α) of .86 for both work and family-role conflict, .70 and .71 respectively for work and family-role overload, as well as measuring an α of .97 and .94 for organizational support and family support, respectively. Both versions of the role involvement scale (job and family) reported an α of .92.

Work-family conflict. The WFC measure for the current research was the scale developed by Carlson, Kacmar, and Williams (2000). While there are a multitude of WFC scales available (e.g., Frone, Russell, & Cooper, 1992; Kopelman, Greenhaus, & Connolly, 1983; Matthews, Kath, & Barnes-Farrell, 2010; Netemeyer, Boles, & McMurrian, 1996), the Carlson et al. measure is well-validated and has some desirable measurement features. The Carlson et al. measure consists of 18 items that follows the established three-source bi-directional (thus, six-factor) conflict conventions established by the research, making it preferable to other measures (e.g. Netemeyer et al., 1996) which do not establish all six factors. Each direction of conflict (WIF and FIW) is assessed with nine items, with each form of conflict (work, strain, and behavior) consisting of three items. The measure was formed using a student sample and validated

using a working sample. Carlson et al. (2000) reported alpha reliabilities of .87, .85, and .78 for time, strain, and behavior-based WIF, and .79, 87, and .85 for time, strain, and behavior-based FIW. In addition to the three more common types of WFC (e.g. time, strain, and behavior-based), the current study responded to the call from previous researchers (Greenhaus, Allen, & Spector, 2006; Grzywacz et al., 2007) and measured energy-based conflict as well. As no known measure accounts for this dimension of conflict, six items were adapted from previous scales (e.g., "I come home from work exhausted" instead of "I come home late/cranky/in 'work mode'"), as appropriate per Greenhaus et al.'s (2006) suggestion. The current study obtained reliability (α) values similar to those obtained by previous research for time (.83), strain (.86), and behavior-based (.74) indicators of WIF conflict. The FIW component of the conflict scale performed similarly, with alphas for time (.79), strain (.87), and behavior-based (.74) indicators of FIW conflict being roughly congruous with the values provided by previous research. The added energy-based conflict items had reliabilities roughly in line with the three more established dimensions for both the WIF (.86) and FIW (.77) components of the scale. Both the overall WIF conflict scale (.93) and FIW conflict scale (.90) indicated high reliability.

Individualism-collectivism. The measure used to assess collectivistic preference in the current study was developed by Triandis and Gelfand (1998). The Triandis and Gelfand (1998) measure consists of 16-items based on a four-factor structure (four items per cell), measuring both individualism and collectivism in horizontal (emphasis on equality) and vertical (emphasizing hierarchy) directions. As such, it provides a circumplex for IC. The items for this scale were originally developed in Singelis,

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Triandis, Bhawuk, and Gelfand's (1995) 32-item measure (8 items per cell), with reported alpha reliabilities ranging from .67 to .74. Although these levels are somewhat low for initial scale development (Nunnally, 1978), the Triandis and Gelfand (1998) measure uses the four highest-loading items in each cell, thus resulting in a more internally consistent measure with higher alpha reliabilities For example, Lam, Schaubroeck, and Aryee, (2002) report $\alpha = .86$ on the individualism scale. As the current study is not focused on differentiating the impact of horizontal and vertical IC, responses from both scales were averaged to create composite scores for individualism and collectivism. This decision did not impact scale reliabilities, with both the individualism (.80) and collectivism (.81) scales demonstrating adequate reliability.

Demographics. The demographic portion of the questionnaire asked participants several questions. As the outcome variable of this study, WFC, requires participants to have both work and a family, the questionnaire assessed how many hours they work each week, with responses of less than 30+ being omitted. Likewise, participants were required to have at least one family member living at home with them, and were asked how many children they have living with them at home, what percentage of household income their wages provide, their current age, their gender, and their wage type. Additionally, as it is a moderator variable of interest, participants were asked to identify their racial/ethnic identification.

The other demographic moderator of interest, SES, was measured with three facets (income, prestige, and education) in a manner similar to Christie and Barling (2009). Participants were provided with various income ranges on a scale of 1-9 with "1" indicating an annual income of $15,000/year or less and each incremental scale point

indicating a maximum annual income of $15,000/year higher than the previous range

(e.g., a response of "2" indicated an annual income of between $15,001 and

$30,000/year) up to a maximum of "9" ($120,000/year or more) and asked to indicate

which one describes their current salary. In order to assess prestige, participants were

asked how many years of training or preparation were required to hold their current

position, with higher levels of preparation indicating higher levels of prestige. Note that

preparation is not the same as education. For example, a classical violinist, while

occupying a high-preparation occupation, may have very little in the way of scholastic

education. By accounting for prestige/preparation in addition to education, the current

research is able to more accurately assess the SES of participants. While no known

research has used this method in the United States, Christie and Barling (2009) have used

this method using a Canadian resource similar to O*NET. These classifications were be

coded on a 1-5 scale, with a response of "1" indicating less than a year of preparation

required to hold the respondents current job title and "5" indicating five or more years of

preparation. Finally, education was assessed on a 1-7 scale, with a "1" indicating "some

secondary education" and a "7" indicating a "Ph.D., M.D., J.D. or equivalent". Scores

from these three facets of SES were weighted equally into a total score, which

demonstrated low (.47) reliability.

Manipulations. Mixed into the questionnaire were five manipulation items.

Following suggestions outlined by previous authors (Huang, Curran, Keeney, Poposki, &

DeShon, 2011; Meade & Craig, 2012) the present study included these items in order to

identify and remove careless or random participant response patterns, which is of

particular concern in the present study, as participants are being paid for participation and

thus may be more motivated to simply complete the survey, rather than responding

deliberately. These items cued a specific response from the participant (e.g., "Please

select 'Strongly Agree' for this item"). If a participant failed multiple items (two or more),

their responses were excluded from analysis. Additionally, each manipulation item

consisted of a unique correct response (e.g., only one item had a correct response of

"Strongly Agree").

CHAPTER IV

RESULTS

In examining the bivariate relationships between the study variables (Pearson's *r*, see Table 1), several trends consistent with previous research in the work-family conflict literature appear (e.g., Michel et al., 2011). The dependent variables – WIF and FIW conflict – have moderate correlations with both same and cross domain antecedents of conflict. For example, WIF conflict has significant correlations with both work-role overload (*r* = .44, *p* < .01) and family-role overload (*r* = .57, *p* < .01), as does FIW conflict with both work-role overload (*r* = .32, *p* < .01) and family-role overload (*r* = .38, *p* < .01), though these latter relationships are smaller in magnitude. In the case of role conflict, these relationships are positive, indicating that work-role and family-role conflict are associated with higher levels of WIF and FIW conflict (*r* = .38 to .53, *p* < .01). Support (both organizational and family) variables, however, had negative relationships with both outcome variables, with the data reporting correlation coefficients of *r* = -.35 for same domain conflict and *r* = -.25 for cross-domain conflict (*p* < .01 in all cases). In the aggregate, this means that individuals who reported higher levels of WIF and/or FIW conflict experienced more role overload, more role conflict, and less social support not just at home, but at work as well, a finding which corroborates previous research in this area. Unsurprisingly, the data demonstrate significant negative relationships between organizational support and work-role conflict (*r* = -.64, *p* < .01) and family-role conflict (*r* = -.31, *p* < .01), and work-role overload (*r* = -.46, *p* < .01) and family-role overload (*r* = -.32, *p* < .01). This pattern continued in the relationships between family support and work-role conflict (*r* = -.26, *p* < .01) and family-role conflict

($r = -.54$, $p < .01$), as well as work-role overload ($r = -.14$, $p < .01$) and family-role

overload ($r = -.28$, $p < .01$). Individuals who reported receiving higher levels of support

from their organization also reported receiving higher levels of support from their family

($r = .31$, $p < .01$).

Role involvement demonstrated more tempered bivariate relationships. Each type

of involvement (job and family) demonstrated relatively stronger relationships with same

domain antecedents and usually non-significant relationships with cross-domain conflict

antecedents. Job involvement, for example, demonstrated a significant and negative

relationship with work-role conflict ($r = -.17$, $p < .01$), but a non-significant relationship

with family-role conflict. Family involvement exhibits the reverse of this pattern,

demonstrating a non-significant relationship with work-role conflict, but a moderate

positive correlation with family-role conflict ($r = -.27$, $p < .01$). No significant

relationships between role involvement and role overload appear in the data. Finally, role

involvement corresponded to more overall support from both domains, but this

relationship was stronger for same domain involvement than cross-domain involvement.

In other words, job involvement had a significant positive relationship for both

organizational support ($r = .45$, $p < .01$) and family support ($r = .11$, $p < .05$), although

this relationship was stronger for the former than the latter. Meanwhile, family

involvement exhibits the inverse of this trend, demonstrating a small albeit significant

relationship with organizational support ($r = .11$, $p < .05$), and a larger relationship with

family support ($r = .36$, $p < .01$).

The continuous moderator variables had mixed and varying relationships with

other variables in the model. Individualism correlated with higher job involvement (r

= .20, $p < .01$), work-role conflict ($r = .16$, $p < .01$), family-role conflict ($r = .17$, $p < .01$), work-role overload ($r = .11$, $p < .05$), and WIF conflict ($r = .15$, $p < .01$), but did not exhibit significant relationships with family-role overload, organizational support, family support, or FIW conflict. Individuals scoring high on collectivism, on the other hand, exhibited higher levels of both job involvement ($r = .30$, $p < .01$) and family involvement ($r = .55$, $p < .01$), and higher levels of support from both their organization ($r = .30$, $p < .01$) and family ($r = .36$, $p < .01$), while demonstrating lower levels of work-role conflict ($r = -.16$, $p < .01$), family-role conflict ($r = -.17$, $p < .01$), and work-role overload ($r = -12$, $p < .05$), as well as slightly lower levels of FIW conflict ($r = -12$, $p < 05$). SES did not exhibit significant relationships with most variables, but showed positive significant relationships with job involvement ($r = .32$, $p < .01$), organizational support ($r = .18$, $p < .01$), and family support ($r = 13$, $p < 01$).

Hypothesis testing was conducted through structural equation modeling (SEM); specifically, a model with both path and measurement components was assessed using maximum-likelihood estimation in MPlus 6.12 (Muthén & Muthén, 2011). Hypothesis 1, which suggested that work and family antecedents common to work-family conflict models would predict work-family conflict in the current dataset as well, demonstrated mixed results. Hypothesis 1a suggested that work-role overload would be positively associated with WIF was supported ($\beta = .13$, $p < .01$), but Hypotheses 1b and 1c, which respectively suggested a positive relationship between work-role conflict and WIF ($\beta = .08$, $p = .48$) and a negative relationship between organizational support and WIF ($\beta = -.01$, $p = .26$) were not supported (see Table 2). This pattern was also borne out in Hypotheses 1d-1f, which suggested a positive association between family-role conflict

and FIW (β = .14, p < .001) for Hypothesis 1d, a positive relationship between family-role overload and FIW (β = .11, p = .28) for H1e, and a negative relationship between family support and FIW (β = -.02, p = .21) for H1f (see Table 3).

Hypothesis 2, which posited the effect of the same antecedents on the cross-domain emergence of role conflict also met with mixed support. While work-role overload was not significantly associated with changes in FIW (Hypothesis 2a, β = .12, p = .05), Hypothesis 2b, which suggested a positive relationship between work-role conflict and FIW was not significant (β = .05, p = .06). Hypothesis 2c, which suggested a negative relationship between organizational support and FIW, was not supported (β = .00 p = .60). Hypothesis 2d, which suggested a positive relationship between family-role overload and WIF was supported (β = .51, p < .001), as was Hypothesis 2e, which suggested a positive relationship between family-role conflict and WIF (β = .12, p < .001). Hypothesis 2f was not supported (β = .01, p = .44), indicating no association between family support and WIF in the current sample.

Hypothesis 3a proposed that job involvement is positively related to FIW, however, this hypothesis was not supported (β = .01, p = .21). Hypothesis 3b, which suggests the cross-domain influence of family involvement on WIF, was also not supported (β = .00, p = .93). These findings are reported in Tables 2 and 3. Hypothesis 4a, which suggested a positive relationship between SES and job involvement was supported (β = .75, p < .001), but Hypothesis 4b, which suggested a negative relationship between SES and family involvement, was not (β = .01, p = .94). These findings are reported in Table 4.

The current study also tested a series of demographic moderators of the work/family antecedent and work-family conflict relationship (Table 5). Hypothesis 5 suggested that race would moderate this relationship; Hypothesis 6 suggested that SES would do the same; while Hypothesis 7 and 8 posited that individualism and collectivism respectively would likewise moderate this relationship. Hypothesis 5 was almost completely unsupported in the current study with no significant differences among racial groups (Whites, Blacks, Hispanics, and Asians) for all but two relationships. Hypothesis 5a and 5b, which suggested a moderating effect of race on the work antecedents and WIF relationships (work-role conflict and work-role overload for 5a; organizational support for 5b), were both unsupported. Hypothesis 5c, which suggested that race would moderate the relationship between family-role overload, family-role conflict and FIW was unsupported for all groups except Blacks ($\beta = .31$, $p < .05$), where the effect of family-role overload and FIW conflict was exacerbated. Hypothesis 5d, which suggested that race impacted the relationship between family support and FIW was unsupported except in the case of Hispanics ($\beta = .06$, $p < .05$), who benefited less from the influence of family support in regard to FIW.

Hypothesis 6 suggested that SES would moderate the relationship between role conflict, role overload, and social support antecedents and work-family conflict (both WIF and FIW). SES was not shown to significantly moderate any relationship between work antecedents and WIF (Hypothesis 6a and 6b), nor was it shown to significantly moderate the relationship between family support and FIW (Hypothesis 6d). There was, however, a small moderating effect of SES on the relationship between family-role conflict and FIW ($\beta = .01$, $p < .01$), thus partially supporting Hypothesis 6c. Hypothesis 7

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and 8, which proposed a moderating relationship between role conflict, role overload, and social support antecedents and WIF/FIW for individualism and collectivism respectively were not supported.

Finally, Hypothesis 9a proposed that individualism is positively related to job involvement, while Hypothesis 9b proposed that collectivism is positively related to family involvement. Results supported both hypotheses. Specifically, individualism was found to significantly affect job involvement ($\beta = .31$, $p < .001$) while collectivism significantly predicted family involvement ($\beta = .74$, $p < .001$). The direct effects of model variables (including individualism, collectivism, and SES) on job and family involvement are reported in Table 4. Collectively, individualism and SES accounted for 14% ($R^2 = .14$, $p < .001$) of the variance in job involvement, while collectivism and SES accounted for 30% of the variance ($R^2 = .30$, $p < .001$) in family involvement.

The fit of the overall model received mixed support (see Table 6). For example, while the CFI (.76) and TLI (.72) both indicated relatively poor fit, the RMSEA (.07) and the SRMR (.04) fit statistics indicated a good-fitting model. In addition to the structural (path) regression component of the hypothesized model, it also included a measurement component consisting of a four-factor (time, strain, behavior, and energy) conceptualization of WIF and FIW conflict. The WIF factor loadings for time (.82), strain (.93), behavior (.54) and energy (.88) were all significant at the .001 level, as were the FIW conflict time (.81), strain (.80), behavior (.45), and energy (.84) factor loadings. In total, the model accounted for 53% ($R^2 = .53$, $p < .001$) of the variance in WIF conflict and 42% ($R^2 = .42$, $p < .001$) of the variance in FIW conflict. As predicted by past

research (e.g., Michel et al., 2011), there was also significant covariance between WIF and FIW conflict (2.12, $p < .001$).

CHAPTER V

DISCUSSION

The current study offers several topics of discussion for the work-family conflict literature. Not only does it extend the amount of factors of the WFC construct from three to four, it also examines the effect of novel moderators on the relationship between previously studied antecedents of conflict and WFC itself. In addition, it makes use of a three-component measurement for SES, instead of using income as a proxy for SES and considers the impact of SES on role involvement, which is another commonly studied antecedent of WFC (Michel et al., 2011). Finally, it examines the individual differences of individualism, collectivism, and race/ethnicity.

Overall, the current study did not exhibit strong results via moderated SEM analysis, with the moderators failing to demonstrate significant effects. However, the current study had several aims and other elements, such as the addition of a fourth (energy) factor to the measurement of WFC, which made a noteworthy contribution to the literature. In addition, while the novel variables did not effectively serve as moderators in the current model, individualism, collectivism, and SES all demonstrated patterns of bivariate relationships that could be used to further research and practice in this area.

Theoretical Implications

Following Greenhaus and Beutell (1985), most research conducted in the WFC arena has used a three-factor (time, strain, and behavior) paradigm. The first and perhaps most interesting contribution the current study makes to the literature is to follow the suggestions of previous researchers (Greenhaus et al., 2006; Grzywacz et al., 2007) and

use a four-factor (time, strain, behavior, and energy) model of WFC. While there has been some presence of energy-based conflict measurement in previous research (Grandey et al., 2005; Kato & Yamazaki, 2009; Small & Riley, 1990), and energy has been suggested as a possible culprit of WFC in meta-analytic research (Michel et al., 2011), the studies available have primarily examined the impact of time and strain-based facets of WFC only, while omitting behavior and energy-based items. The current study adds to the literature by including time, strain, behavior, and energy-based indicators of WFC.

Interestingly, while the factor loadings for energy-based conflict were in line with the loadings of time and strain-based indicators for both WIF and FIW conflict, it was the behavior-based indicators of conflict that fared the worst, with loadings far below the other three dimensions. Taken together, this could mean that the amount of energy an individual devotes to a given role (work or family) may more meaningfully impact perceived role strain than the differential behaviors expected in each role. This would seem to support the resource drain perspective of role conflict (Edwards & Rothbard, 2000) as time, emotional energy (i.e., strain), and physical energy could all be considered a resource, but behaviors cannot.

Although the aim of the current study was simply to employ a moderated SEM model in which the WFC variables were measured by four factors instead of three, the data available also allow for a post-hoc confirmatory factor analysis (CFA) to evaluate the inclusion of the fourth energy factor of conflict into the theoretical framework of WFC (see Table 6). To examine the impact of this fourth factor, a CFA using the traditional time, strain, and behavior (TSB) indicators of both WIF and FIW was modeled and evaluated against a model using time, strain, behavior, and energy components

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(TSBE). While the addition of the energy component of conflict improved all indices of fit, only the SRMR (.10) indicated even passable fit. In order to evaluate these non-nested models, the AIC was consulted. The AIC associated with the traditional TSB model (12,139.34) was still less than the AIC for the four-factor TSBE model (15,546.96). Thus, while the fourth factor increased model fit, it did not do so enough to justify increased model complexity.

However, as mentioned previously, the loadings for behavior-based conflict were well below the loadings for time, strain, and energy-based conflict. To evaluate the impact on overall model fit, a third CFA specified to include only time, strain, and energy (TSE) components was modeled and compared against the traditional TSB model of work-family conflict. Under this alternate CFA model fit improved remarkably, with all fit indices not only improving, but unanimously indicating good model fit as well. The AIC associated with the TSE model (11,415.04) demonstrated that this approach did not only improve fit in an absolute sense, but also in a comparative one.

Thus, if maximizing model fit is one's objective, it would make sense to respecify the study model (Model 1, see Table 6) to eliminate the behavior-based role conflict indicators. Before discussing this approach, however, it is important to note that previous authors (Vandenberg & Grelle, 2009), while championing the use of alternate model specification (AMS), also note that models featuring both a structural (path) component and a measurement (factor) component - as the current study model does - may have inflated measurement of fit, as the measurement component adds a large proportion of degrees of freedom. This may mask a poor-fitting path model. In order to ascertain if that were the case for the current model, a strict structural/path model (Model 2) was

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specified and evaluated. While the TLI for this model dropped slightly (.66 vs. 72 for

Model 1), all other measures of fit were roughly equivalent. Thus, for the current study at

least, the inclusion of a measurement component in the model did not seem to inflate

indicators of fit: indices that indicated poor fit previously did not substantially worsen,

and indices that indicated good fit in Model 1 did not indicate poor fit in Model 2.

Based on the post-hoc CFA results, another AMS was developed (Model 3),

which is identical to Model 1 but removes the poorly loading behavior component of

WIF and FIW. Model 3 fits the data better (see Table 6), but did not meaningfully change

the study results and inferences as pathway estimates remained stable. Specifically, in

this alternate model, all pathways that were non-significant in the originally hypothesized

model remain non-significant, and no significant paths in the study model drop to non-

significance in the alternate model. Pathway estimates and effect magnitudes experience

only very slight changes. For example, the work-role conflict on WIF conflict path

coefficient changes from the original model ($\beta = .13$, $p < .01$) to the alternate model (β

$= .12$, $p < .01$), but even this difference is only due to a difference in rounding (.126

original, .122 alternate).Nonetheless, while model fit improved across all indices, the

resolution remains the same: the RMSEA and SRMR - which indicated good fit in

Models 1 and 2 - still do so, while the TLI and CFI indicate poor fit here just as they did

in previous models.

The associations, or rather the nature of the associations, demonstrated between

commonly-studied antecedents of WFC and conflict itself are likewise interesting. As

mentioned in the results section above, between work-role conflict, work-role overload,

and organizational support, only work-role conflict demonstrated any significant

association with WIF whatsoever; an association weaker than the average coefficient reported by previous meta-analysis (Michel et al., 2011). FIW antecedents followed this same trend. Between family-role overload, family-role conflict, and family support, overload alone demonstrated a significant effect, which was much weaker than previous studies have indicated (e.g., Michel et al., 2011). This pattern continued across cross-domain stressor-strain (e.g., family role overload on WIF) relationships.

SES by itself was shown to have a significant relationship with job involvement, but not with family involvement. This lends partial support to the suggestion that individuals who spend the most time preparing and educating themselves for their careers are more involved with them, however, the other side of this argument, that lower-SES individuals would prioritize their families and be less involved with their careers, was not supported, as there was no significant path between SES and family involvement. This indicates that, at least for the current sample, individuals of all socioeconomic strata are equally involved with their family roles.

Individualism and collectivism were not shown to moderate the path between established role conflict antecedents and WFC, nor were they shown to themselves have direct effects on WFC. Nonetheless, they were shown to have an impact on role involvement, with individualism being associated with job involvement and collectivism demonstrating a relationship with family involvement. This would seem to corroborate the previously stated argument that individualists prioritize their careers, while collectivists prioritize their families. However, while the current study did not test the relationship between collectivism and job involvement, or individualism and family involvement, it should be noted that a relationship between collectivism and job

involvement ($r = .30$, $p < .001$), but not between individualism and family involvement ($r = .01$, $p > .05$) was observed in the data (see Table 1). Thus, it is possible that individualists see their career as a personal source of fulfillment and collectivists see both work and family as collectives, and the practical implications of these results are discussed in the following section.

Finally, regarding the model as a whole, whether or not the model "fit" well depends on the index consulted. The RMSEA and SRMR indicated a good fitting model, but both the TLI and CFI were well below established cutoffs (.90). That the incremental fit indicies - the TLI and CFI - were so low seems to indicate that the average correlation between variables in the model is low, which is corroborated by examining the pairwise correlations between all variables in the model. The absolute indicators of model fit (RMSEA and SRMR), however, indicate that the correlations predicted by the model were actually represented by the data and that the model is accurately explaining variance in the outcome (conflict) variables.. Taken together, this means that model was specified well, but that the relationships between variables in the model were weak. As illustrated above, this pattern holds for the current dataset regardless of whether one is using the hypothesized approach (Model 1), a more "honest" path-only approach (Model 2), or a post-hoc data-driven approach suggested by the CFAs mentioned before (Model 3).

Practical Implications

In addition to contributing to the existing body of WFC theory literature, the current study also offers potential insight in the practice and application of this literature to the workplace. Of particular note is the role played by individualism and collectivism in the current study. While individualism and collectivism did not demonstrate significant

moderation effects in the study model, at the bivariate level these two constructs offer contrasting pictures of individuals in the workplace that may serve to illuminate the disparate effectiveness of some WFC-reduction interventions.

The current study detected significant correlations between individualism and several other variables (see Table 1), such that individualism was linked to higher levels of job (but not family) involvement, higher levels of both work and family role conflict, work-role overload, and higher levels of WIF conflict. In addition, no significant relationship was observed between individualism and organizational support, family support, family involvement, and FIW conflict. These relationships serve to reinforce the picture of high-individualism scorers as independent and self-reliant, as suggested by previous researchers (Hostede, 2001; Triandis, 1995).

Note that the relationships weren't significantly negative: that is, high-individualism scorers didn't feel that they *weren't* supported by their organization or family, they simply didn't report noticing greater or lesser levels of support than low-individualism scorers did. This could mean that interventions aimed at reducing WFC that rely on increasing perceived support will be ineffective for individuals that score high on individualism. Given that direction of influence is always at issue with correlational relationships (i.e., it is equally likely that individualists may not perceive support as it is that people who are indifferent to support prefer an individualist worldview and choose to "go it alone"), it could be the case that support-increasing interventions are not only ineffectual, but such interventions may in fact *hinder* individuals who score high on individualism, as they may perceive the intervention as commentary on their ability to independently solve problems. Finally, it may be the case

that individuals who score high on individualism prefer organizational settings where independent initiative is preferred (such as financial services or a stockbrokerage) and that accepting support may be seen as an indication of poor performance by peers or the organization.

Meanwhile, the bivariate relationships demonstrated by collectivists are equally illustrative. Higher levels of collectivism were associated with higher levels of job and family involvement, organizational and family support, as well as FIW conflict. Additionally, the relationships between collectivism work-role conflict, family-role conflict, and work-role overload were significant and negative (though weak in magnitude), and are the exact reverse of those exhibited by these variables and individualism. As the construct name suggests, collectivists place a high emphasis degree of self-identification on groups and collectives (Hofstede, 2001). This means that significant positive relationships between collectivism and role involvement (both job and family) may not be all that surprising. After all, the current study is an attempt to extend research by previous authors (e.g., Grzywacz et al., 2007), which suggested that individuals who emphasize group outcomes may blur the lines between roles (e.g., "What's good for my career is necessarily good for my family"). Thus, while individualists emphasize their career (as illustrated by the correlation between individualism and job involvement), collectivists may simply prefer to be more involved in all roles, without discriminating between roles in different domains. In addition, since collectivists reported higher levels of both organizational and family support, it stands to reason that support provided by either domain is effective at reducing strain in both domains. As a result, organizations populated by highly collectivistic employees may

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benefit from interventions that allow them to take advantage of the collectivist preference for role blurring. This means that telework, flextime, satellite offices, and company daycare, are all potentially effective interventions for organizations looking to reduce the strain of collectivist employees.

When discussing bivariate relationships, it is important to note that individualism and collectivism scores demonstrated a weak but significant positive relationship. This supports a circumplex view of individualism and collectivism (e.g., Oyserman et al., 2002; Triandis, 1995): If the two constructs were dichotomous, as originally suggested by Hofstede (1984; 2001), then the correlation between the two variables should be strongly negative. As this observation has already been made in preceding research, the theoretical implications of this result are slight. In a practical sense and in light of the above discussion which highlights the practical implications of the current study's findings however, a larger contribution can be made. Namely that since individuals can score high (or low) on either or both individualism and/or collectivism, employers and organizations should attempt to ascertain when and in what context their employees identify with a collective or group, and when these same employees exhibit a more individualistic outlook.

Imagine a stockbroker or financial consultant, for example. In the work domain he or she may prefer an individualistic outlook; focusing on their own career exploits and goals. Now suppose this same stockbroker has a spouse, children, and parents living with them at home. As a result of a strong sense of family, this individual may exhibit a collectivistic outlook in the home/family domain. Alternately, a working single mother may enjoy working in an organization or career that prizes group collaboration, decision

making, and outcomes (a collectivistic outlook) while also drawing pride from her ability to independently care for and raise her children (an individualistic perspective). As a result of having differential resources and priorities, these two individuals may require differing interventions, resources, and organizational policies to effectively combat or ameliorate any role conflict they may experience. This means that organizations wishing to preempt or mollify role conflict would be well-served to evaluate the needs and expectations of their employees before embarking on the implementation of any WFC intervention, as the intervention may prove costly and ineffective otherwise.

Limitations

As with any study, the current study possesses several shortcomings. As with many studies, the current study used a cross-sectional design. This means that flaws inherent to studies featuring this design, such as the inability to demonstrate cause/effect relationships or account for within-subject variation, are present in the current study as well. In addition, the current study relied exclusively on self-report data to evaluate the study hypotheses. These concerns, both of which fall under the concern of Common Method Variance (CMV; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), have been the subject of much debate in the literature, with authors differing in opinion as to whether their effects are severe (Doty & Glick, 1998) or very minor (Crampton & Wagner, 1994; Spector, 2006). Although the best source of information on an individual's strain level is the individual themselves, other variables present in the study, such as role involvement, may be best evaluated by external sources, such as spouses or coworkers. In addition, since there is no way to externally verify participant responses, it is possible that certain demographic information, such as income, may likewise be incorrectly reported, and – at

the heart of concern over CMV – correlations between given variables may be inflated. While the size of this inflation and the impact of CMV is up for debate, it remains worth mentioning that CMV may have impacted the results of the current study and that the study could have been strengthened by including additional sources or time points of measurement.

This consideration is particularly relevant to discussion of race/ethnicity in the current study. Given that the survey was conducted online and that stratified random sampling was employed to ensure adequate representation among groups, it is possible that individuals signed up for a survey reporting that they belonged to a different racial/ethnic group than their own. Since the survey monetarily incentivized participation, this is even more likely. While interference items were used to prevent random response patterns, it is possible that in many cases respondents answered all items truthfully, while obfuscating their racial/ethnic identity. It is also likely that individuals from outside North America completed the survey, but selected a race/ethnicity that they felt represented them best. For example, an individual from Afghanistan (an "Asian" country) may feel that the group "Caucasian/White" describes them best. Consequently, the variance within each racioethnic group may have become so volatile as a result of cross-national differences as to obscure differences between each group.

There are also potential problems with the manner in which the moderating variables were modeled when conducting statistical analysis. Following previous researchers (e.g., Christie & Barling, 2009), the current study measured three indicators of SES: income, education, and prestige. However, Christie and Barling (2009) used job titles as an indication of prestige with individuals across occupations being categorized

across four skill levels, with higher skill-level occupations operationalized as having higher prestige. The current study, on the other hand, used a single item ("How many years of training or preparation are required to hold your current job") to evaluate occupational prestige, with more years of training/preparation equating to higher levels of prestige. Further, given the large amount of interaction terms already present in the model, a total score tallied from an individual's reported income, education, and the aforementioned training/preparation, and this value was used to calculate interaction terms. While this approach results in a more parsimonious model, it is possible that each aspect of SES from which the score was computed has a unique relationship with WIF and FIW, and that this relationship is washed out by combining values in this manner.

This shortcoming was paralleled in the individualism and collectivism constructs. The current study utilized Triandis and Gelfand's (1998) measure of individualism and collectivism. The conceptualization of the individualism/collectivism construct around which this measure is based features a "vertical" and "horizontal" component to both individualism and collectivism, and in effect measures four different subconstructs. Again, given the large number of interaction terms and variables present in the model, scores on the horizontal and vertical aspects of both individualism and collectivism were combined in an effort to construct a more parsimonious model. In so doing, it is possible that any unique contributions of the facets of individualism and collectivism were lost.

Future Research

While the current study offers a novel perspective on the work and family relationship, future research can bolster this perspective further while ameliorating many of the shortcomings present in its design. Most prominently, the current cross-sectional

design could be replaced with a longitudinal sampling method. This would allow for the more accurate modeling of moderator effects and their impact on conflict and potentially WFC antecedents themselves. In addition, a study featuring dyadic sampling (e.g., participant plus spouse or coworker) would be able to address many of the limitations present in the current study as a result of self-report measures. It is also possible, given the small effect size observed in the current study as well as in previous meta-analyses (Byron, 2005; Michel et al., 2011), that some relationships which are ostensibly minor or even non-significant may become more impactful over longer periods of study. For example, job involvement generally has only a small relationship with WIF conflict (Michel et al., 2011) but this small relationship could "snowball" over time, as an individual becomes more and more involved with their career at the expense of adequately performing their family responsibilities. Given a sufficient time scale to detect these effects, future research might build upon the current study by evaluating relationships that the current research was unable to observe longitudinally, such as the one mentioned above, or periods of time such as Christmas when work and family commitments may "spike" and otherwise banal stressors produce strain in individuals.

It is also possible that the effects of the moderators in the current study take place at the crux of not one relationship but many. Individualists, for example, may be more sensitive to the impact of work-role conflict *and* the impact of WFC on life satisfaction, as well as other outcome variables common to the conflict literature (Mesmer-Magnus & Viswesvaran, 2005). Likewise, individuals across various levels of SES may respond differently to the impact of job stressors on work-role overload, *in addition* to any moderating effect SES has on the relationship between work-role overload and FWC.

This second example highlights an additional potential direction for future research, namely that the current study only examined the moderating effects of individualism, collectivism, racial/ethnic identity and SES on same-domain role-stressors/role conflict. The current study and many others (e.g., Michel et al., 2011) have found significant relationships between cross-domain stressors and role conflict. As a result, it is possible that the moderators present in the current study may impact cross-role stressor/strain relationships as well. While they were not included in the current study in an effort to manage an already-complicated model, future researchers could examine the influence of these moderators on the relationships between both same and cross-domain stressors and WFC.

Another potential direction of research is the possibility that variables from the present study may moderate not only the relationship between the proposed work/family antecedents and WFC, but also WFC and outcome variables previously studied by the literature such as job and life satisfaction (cf. Kossek & Ozeki, 1998; Michel et al., 2009). A large share of the value of WFC research is not in the study of the construct for its own sake, but in understanding the role of WFC as a mediator of the stress and life satisfaction (Michel et al., 2009). The current study lacks any sort of outcome variables external to the stressor/strain relationship.

Just as established WFC antecedents such as work-role conflict (Byron, 2005; Michel et al., 2011), have been linked to same-and-cross-domain conflict, so too have they linked to outcomes of WFC, such as job and life satisfaction (Michel et al., 2009). It is possible that the moderator variables in the current study also impact these same variables either via direct antecedent/outcome relationships or by moderating both the

stressor/strain *and* the strain/outcome pathways. It is also possible that the novel variables presented by the current research take on different roles at different points in the stressor→strain→outcome experience. For example, as observed in the current study, higher levels of SES was associated with higher levels of job involvement (serving as an antecedent, in this case), if being materially successful also made an individual more susceptible to the impact of WIF on job satisfaction (a moderation), then in this hypothetical model SES would serve as both an antecedent [of a WFC antecedent] and as a moderator [of a WFC to satisfaction outcome relationship].

There is also much room for expansion in the examination of the role of SES in future work-family research. As the internal reliability estimate provided in Table 1 demonstrates ($\alpha = .47$), the three facets of SES are only weakly related to one another. Unifying participant scores on SES facets was undertaken in an effort to increase model parsimony. Yet, as outlined in the measures section above, it is possible to score low on one element of SES (prestige, income, and education), yet still be considered to have high SES. Thus, although for many constructs reliability statistics of this magnitude may be damning, the components of SES included in the current study were never suggested or conceptualized to strongly correlate. As such, a low internal reliability for a combined SES score is not necessarily indicative of inadequate validity for the components of the construct as representations of status.

Nonetheless, splitting SES back into its component parts (as outlined by Christie & Barling, 2009) and using each as a moderator (or predictor) instead of a total score approach used in the current study is one potential direction for future research. A three-component operationalization of SES has already been used in the stress literature in

general (Christie & Barling, 2009) and the income component has been widely used in the WFC literature specifically (Bryon, 2005; Michel et al., 2011). The impact of job-related and personal resources have already been integrated into stressor-strain models via resource drain theory (Edwards & Rothbard, 2000). It is likely that individuals in occupations that require higher levels of education and generate increased prestige have access to higher levels of resources just as individuals with high levels of income do. In addition, individual differences, such higher levels of conscientiousness and lower levels of neuroticism are likely to covary with the education facet of SES (as a requirement to be successful in higher education endeavors in the first place).

Indeed, individual difference (personality) variables such as the Five Factor Model and affect have already found their way into the WFC literature (Michel & Clark, 2009; Michel, Clark, & Jaramillo, 2011). As individualism and collectivism are operationalized in the current study as personality variables, considerations relating to individual differences are not entirely absent from the model. Nonetheless, future research could include individual difference variables present in both the current study and in previous research in an attempt to ascertain the impact on and interplay with conflict outcomes. Individualists, for example, with their high focus on personal achievement and capability, may score higher on conscientiousness. Meanwhile, individuals who score high on collectivism are likely to score higher on agreeableness as a result of their preference for a group-focused worldview. If this supposition is supported, it is easy to envision differing personal strategies by which individuals may be susceptible to or seek to cope with role stressors.

Additionally, given the weak predictive performance of job involvement in both the current study and previous research (Michel et al., 2011), future research and alternate models in the work-family arena might focus on supplanting or extending the presence of job involvement in work-family models. The current study focused primarily on the inclusion of established antecedents of WFC and thus did not seek to examine alternative operationalizations of role importance or centrality. However, other researchers have recently focused on two such constructs that are similar to role involvement in the emphasis the importance of a role: embeddedness and job engagement. Job embeddedness (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001), while closely related to commitment, also refers to how much fit a person perceives in their current job as well as evaluating what they would have to sacrifice if they left their current position and how important their job is to their overall identity. As such, job embeddedness closely resembles role involvement and work centrality, both of which have been subject to previous scrutiny in WF models (see Michel et al., 2011). In addition, a second type of embeddedness, community (off-the-job) embeddedness, has also been suggested (Lee, Mitchell, Sablynski, Burton, & Holtom, 2004). Community embeddedness mirrors job embeddedness in describing the amount of attachment and individual feels towards a role, but instead focuses on the non-work domain. Naturally, this work/non-work duality lends itself well to examination of cross-role strain, and, along with the conceptual similarity between embeddedness and role involvement, provides a second line of justification for the inclusion of embeddedness in WF models.

The nature of this inclusion has been examined across multiple directions, with embeddedness alternately being proposed as an outcome (Karatepe, 2013)and an

antecedent (Ng & Feldman, 2012) of WFC, as well as a mediator of the relationship between WFC and well-being (Ng & Feldman, 2014). Theoretically speaking, the impact of embeddedness on WFC could take place via resource depletion mechanism, in which increased time and dedication to one role hinders performance in another, or via a conservation perspective, in which additional resources generated in one role may serve to provide insulation and latitude from stressors occurring in another role. Thus, embeddedness may serve to either help or hinder cross-role performance. Ng and Feldman (2012) tested these competing perspectives, with their data suggesting that higher levels of embeddedness were associated with increases in cross-role conflict. These authors accordingly point out that while the majority of research has focused on the beneficial impact of embeddedness on within-role performance, embeddedness may concurrently be detrimental to cross-role performance. Additionally, moderating effects of individualistic-collectivistic values on the embeddedness-WFC relationship have been observed in previous research (Ng & Feldman, 2012, Ng & Feldman, 2014), again supporting the evaluation of IC in the WF arena both in the current study and beyond.

Work engagement, originally referred to by Kahn (1990) as a construct that describes how individuals direct and devote energy and focus into their work role, could likewise serve as to supplement or replace job involvement in WF models. Engagement is most often conceptualized as a multifacet construct consisting of three dimensions (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). The first, dedication, is characterized by the sense of significance, pride, and inspiration that an individual feels towards their work. The second, absorption, refers to how much engrossment and

concentration one feels while working. Finally, the third facet, vigor, assesses the amount of energy and mental resilience one experiences while performing their job.

Work engagement not only resembles embeddedness and role involvement in conceptually, but also in the "too much of a good thing" approach research has taken in describing its place in WF models. Work engagement, like embeddedness, has been associated with improved within-role performance; being linked with higher job performance (Harter, Schmidt, & Hayes, 2002) as well as reduced turnover intentions (Schaufeli & Bakker, 2004). However, other researchers (Halbesleben, Harvey, & Bolino, 2009) have suggested that, in line with conservation of resources theory (Hobfoll, 1988), high levels of engagement in one role (work, in this case) may, via greater investment of resources (e.g., time, energy) in this role, prevent adequate investment of resources in other roles, leading to reduced performance in these roles. In the case of Halbesleben et al. (2009) this suggestion was borne out, with higher levels of engagement being associated with higher levels of WIF conflict, although this effect was moderated by conscientiousness and mediated by the performance of organizational citizenship behaviors. While a similar relationship should exist for [over]engagement in the family role and subsequent reduced work-role performance and strain (i.e., FIW), a non-work version of the engagement (e.g., family engagement) does not exist as it does for embeddedness and role involvement. Thus, any future researchers wishing to examine such a relationship would need to create and validate such a construct or use another in its place.

There is also room in future research to expand and more fully develop understanding of the impact of social support in WF models. This extension could take

place in two ways over and above the way it is presented in the current research. First, support was operationalized in the current study (see Appendix) in the family domain via responses to items about family members and in in the work domain by responses to items about the organization. While this is a common strategy in the WF research, it omits one critical distinction that might inhibit the ability of the support construct to demonstrate significant relationships with WFC variables. Specifically, measures presented in this way ask respondents to consider specific individuals when responding to family-role items, but treat the organization as a single, monolithic entity when responding to items in the work-role. While the organization may, via organizational policy, provide or facilitate an environment where support can take place, the actual agents providing this support are likely to be specific individuals close to the respondent (e.g., asking a supervisor for a day off to spend with a sick child). It is thus more appropriate in survey research to ask respondents about individuals, rather than the organization. Indeed, items in future studies could be modified to ask respondents about specific actors within the organization that provide them with social support, such as managers/supervisors and coworker peers.

While the first method for expanding the examination of social support in work family models focused on the *source* of the support the second is to evaluate the *type* of support and how different types of support ameliorate conflict emergence and how this relationship is moderated by different variables. Initially, there may be differential effects between tangible and intangible support provided to individuals and subsequent experiences in WFC. Tangible support, for example, may occur when the organization subsides employee daycare (or offers on-site daycare services), which directly saves the

employee money, while intangible support could be demonstrated when one coworker covers another's shift during a family-related absence. In line with the one of the aims of the current study – to examine the impact of IC in the WF research domain – subsequent research could also examine how individuals with differing levels of individualistic and collectivistic values respond differently to these varying types and sources of support. Collectivists, for example, may benefit more from peer- or intangible support than individualists, due to the collectivistic emphasis on shared responsibility and group outcomes. People scoring highly on individualism, meanwhile, may experience less strain when receiving support that enables them to focus on their own personal goals and accomplishments, even over and above the reduction experienced by persons scoring low on individualism or highly on collectivism. Thus, although support demonstrated relationships with several variables in the current study, future research still has several horizons to explore regarding the types, sources, and moderators of this support in WF models.

Finally, previous researchers (Grzywacz et al., 2007, Spector et al., 2007) have postulated the impact of demographic variables on specific aspects of the work-family relationship. Namely, that low-SES workers may face higher levels of energy-based conflict than their high-SES counterparts. That the current study did not directly and explicitly observe this relationship does not discount this proposition. In attempting to further and integrate several lines of research at once, the current study may have obscured the effects of any or all of these variables in relation to WFC. As the results of the current study seem to indicate the successful inclusion of energy-based WFC into existing models, future research could focus on testing a more parsimonious model using

only the Christie and Barling (2009) three-component indicators of SES as antecedents

and a three (TSE) or four-factor (TSBE) WIF and FIW conflict as outcome variables.

Additionally, the current study model only examined the influence of these variables on

overall WIF and FIW. Future research could instead implement techniques such as latent

class analysis to examine response trajectories for different conflict facets across SES and

individualism/collectivism levels, as well as across racial/ethnic groups.

Conclusion

The current study was inspired by previous research (Gryzwacz et al., 2007)

which suggested that differences in the WFC experience may be brought about due to

individualism/collectivism, SES, racioethnic identity, or energy-based conflict. The

current study ambitiously sought to examine the interplay of all of these novel variables

in the WFC domain. Such a broad scope, however, preempts the ability to examine any

one variable or moderator in depth. Although the model explains a high degree of

variance in the outcome variables, the high number of variables in the regression equation

potentially masks the contribution of any one variable or subset of variables.

However, even this apparent limitation can actually make a contribution to the

literature: In a previous meta-analysis (Michel et al., 2011), work and family-role

overload and organizational and family support are at least as effective as work and

family-role conflict as predictors of WIF and FIW conflict, and more effective in some

cases. But in the current study, only work-role conflict exhibited a significant relationship

with WIF ($\beta = .13$, $p < .01$) and only family-role conflict exhibited a same-domain

relationship with FIW ($\beta = .14$, $p < .001$), while work and family-role overload and

organizational and family support exhibited no significant same-domain relationships. In

effect, the additional variables in the current study act as control variables, and after they are included work and family-role overload and support, but not work and family-role conflict, drop to non-significance as predictors of same-domain conflict. This would seem to imply that work and family-role conflict are more robust predictors of WIF and FIW. All three variables continued to be effective predictors in a cross-domain context, as proposed by previous research (Michel et al., 2011). However, note that moderation relationships were only proposed and tested for same domain stressor-strain antecedents and not for cross-domain antecedents. Thus, it is probable that the same effect would occur if the same moderator variables were applied to the cross-domain antecedent-outcome paths in the model.

The current study also sought to integrate an expanded conceptualization (income, prestige, and education instead of income alone) of SES into work-family research. Poorly operationalizing this variable (with a corresponding low internal-reliability estimate) may have inhibited its elements from effectively demonstrating relationships with other variables in the study. However, even poor implementation and reliability did not stop the SES variable from demonstrating significant relationships with job involvement, family-role conflict, and both organizational and family support. By splitting SES into its component elements in subsequent research, even more powerful relationships may be observed. By demonstrating relationships with other study variables not because of operationalization but in spite of it, the current study makes an important (if imperfect) contribution to the research literature.

To the author's knowledge, this study is the first to include individualism and collectivism as individual difference variables in the WFC literature. As discussed in

more detail above, while not demonstrating the hypothesized effects in the current study, these two variables may still influence the stressor-strain relationship via linkages not present in the current study model. Given the relationships that these variables *did* demonstrate and the strong presence of other individual differences in the work-family literature, it is likely that scores on variables such as those in the Five Factor Model and individualism and collectivism may interact to influence both the emergence and reaction to WFC, as well as other stressor/strain relationships.

Lastly, the current study expands the very theoretical underpinnings of WFC by expanding the factor structure of the WFC construct itself. Certainly, further research is required to evaluate and corroborate the superiority of a four-factor (TSBE) and alternate three-factor (TSE) model to the existing three-factor (TSB) model of WFC. This research could take the form of scale-development and CFA or full path model testing. However, whichever form it takes the successful inclusion of energy-based conflict in the current study helps pave the way for its inclusion in future studies in the WFC arena.

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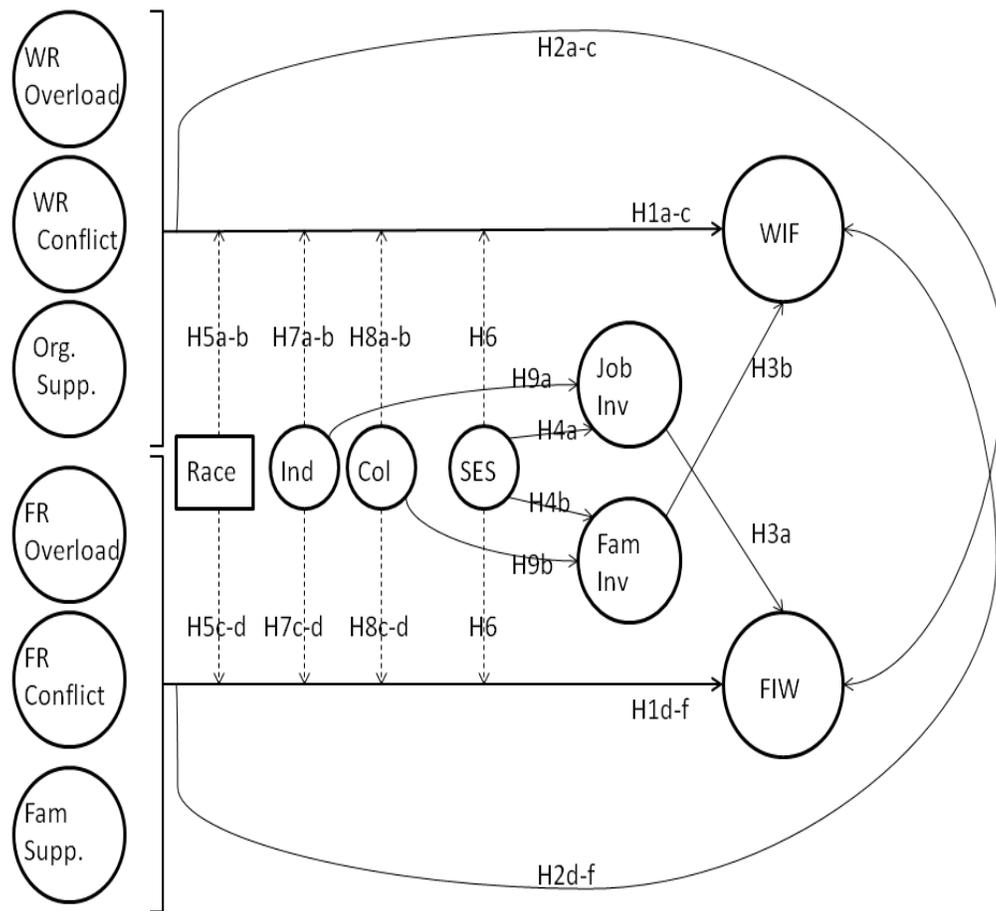Zhang, M., Griffeth, R. W., & Fried, D. D. (2012). Work-family conflict and individual consequences. *Journal of Managerial Psychology, 27*, 696-713. doi: http://dx.doi.org/10.1108/02683941211259520

Figure 1. Theoretical model summarizing the predicted relationships between constructs

Table 1

Descriptive Statistics, Correlations, and Scale Reliabilities for Study Variables (N = 414)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Individualism	38.54	6.75	.80												
2. Collectivism	44.80	6.13	.10*	.81											
3. Job Involvement	33.39	11.06	.20**	.30**	.92										
4. Family Involvement	49.80	8.24	.01	.55**	-.03	.92									
5. Work-Role Conflict	21.59	6.44	.16**	-.16**	-.17**	-.07	.86								
6. Family-Role Conflict	20.85	6.36	.17**	-.17**	.06	-.27**	.45**	.86							
7. Work-role Overload	7.56	2.20	.11*	-.12*	-.10	-.04	.54**	.37**	.70						
8. Family-role Overload	7.57	2.19	.04	-.02	-.03	.04	.34**	.49**	-.49**	.71					
9. Organizational Support	71.30	22.39	-.09	.30**	.45**	.11*	-.64**	-.31**	-.46**	-.32**	.97				
10. Family Support	55.49	11.49	-.01	.36**	.11*	.36**	-.26**	-.54**	-.14**	-.28**	.31**	.94			
11. Socioeconomic Status	13.93	4.63	.06	.07	.32**	.04	-.04	-.12*	-.05	-.06	.18**	.13**	.47		
12. Work-Family Conflict	40.27	11.90	.15**	-.05	.06	-.01	.48**	.51**	.44**	.57**	-.35**	-.25**	-.02	.93	
13. Family-Work Conflict	33.27	9.93	.08	-.12*	.11*	-.09	.38**	.53**	.32**	.38**	-.25**	-.35**	.04	.68**	.90

Note. Coefficient Alphas appear on the diagonal in italics.

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

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

***. Correlation is significant at the .001 level (2-tailed).

Table 2

Path Coefficients, Standard Error, and Significance Values for Continuous Antecedents of WIF

Variable Type	Variable	B	$S.E.$
Same-Domain Antecedents	Work-role Conflict	.13**	.05
	Work-role Overload	.08	.11
	Organizational Support	-.01	.01
Cross-Domain Antecedents	Family Involvement	.00	.02
	Family-role Conflict	.12***	.03
	Family-role Overload	.51***	.07
	Family Support	.01	.78
Moderator Direct Effects	Socioeconomic Status	.01	.03
	Individualism	.02	.02
	Collectivism	.01	.02
Moderator Cross Product Effects			
Individualism with	Work-role Conflict	.00	.00
	Work-role Overload	-.01	.01
	Organizational Support	.00	.00
Collectivism with	Work-role Conflict	.00	.00
	Work-role Overload	.01	.01
	Organizational Support	.00	.00
Socioeconomic Status with	Work-role Conflict	.00	.01
	Work-role Overload	.01	.01
	Organizational Support	.00	.00

Note: Moderator main effects were not hypothesized relationships but were included in the model regression, so are included here for the sake of completion. *B*, unstandardized path coefficients; *S.E.*, standard error

*. Path is significant at the $p < .05$ level

**. Path is significant at the $p < .01$ level

***. Path is significant at the $p < .001$ level

Table 3
Path Coefficients, Standard Error, and Significance Values for Continuous Antecedents of FIW

Variable Type	Variable	B	S.E.
Same-Domain Antecedents	Family-role Conflict	.14***	.04
	Family-role Overload	.11	.10
	Family Support	-.02	.02
Cross-Domain Antecedents	Job Involvement	.01	.01
	Work-role Conflict	.05	.02
	Work-role Overload	.12	.06
	Organizational Support	.00	.52
Moderator Main Effects	Socioeconomic Status	.06*	.02
	Individualism	.01	.02
	Collectivism	-.01	.02
Moderator Cross Product Effects			
Individualism with	Family-role Conflict	.00	.63
	Family-role Overload	.00	.00
	Family Support	.00	.02
Collectivism with	Family-role Conflict	.00	.00
	Family-role Overload	.00	.01
	Family Support	.00	.00
Socioeconomic Status with	Family-role Conflict	.01**	.00
	Family-role Overload	.01	.01
	Family Support	.00	.00

Note: Moderator main effects were not hypothesized relationships but were included in the model regression, so are included here for the sake of completion. *B*, unstandardized path coefficients; *S.E.*, standard error
*. Path is significant at the *p* < .05 level
**. Path is significant at the *p* < .01 level
***. Path is significant at the *p* < .001 level

Table 4

Path Coefficients and Standard Errors for Antecedents of Job and Family Involvement

Role Involvement Type	Antecedent	*B*	*S.E.*
Job Involvement	Individualism	.31***	.08
	SES	.75***	.11
Family Involvement	Collectivism	.74***	.06
	SES	.01	.07

Note: B, unstandardized path coefficients; *S.E.*, standard error
*. Path is significant at the *p* < .05 level
**. Path is significant at the *p* < .01 level
***. Path is significant at the *p* < .001 level

Table 5

Moderating Effects of Racial/Ethnic Identity on Antecedents and Perception of WIF and FIW Conflict Versus Referent (White/Caucasian) Group.

Conflict Direction	Variable	Black/African American		Hispanic/Latino		Asian/Pacific Islander	
		B	*S.E.*	*B*	*S.E.*	*B*	*S.E.*
WIF	Work-role Conflict	-.01	.06	-.10	.07	-.07	.07
	Work-role Overload	.01	.15	.15	.16	.19	.18
	Organizational Support	.01	.02	.01	.02	.03	.02
FIW	Family-role Conflict	-.01	.05	-.07	.06	.01	.06
	Family-role Overload	.31*	.14	-.02	.15	-.17	.15
	Family Support	.03	.03	-.06*	.03	-.02	.03

Note: B, unstandardized path coefficients; *S.E.*, standard error
*. Path is significant at the *p* < .05 level
**. Path is significant at the *p* < .01 level
***. Path is significant at the *p* < .001 level

Table 6

Model Fit Results for Hypothesized Study Model, Alternate Model Specifications (AMS)s, and CFAs

Model	Model Type	χ^2	*df*	RMSEA	CFI	TLI	SRMR	AIC
1	Hypothesized	1176.76	426	.07	.76	.72	.04	21011.91
2	AMS	346.37	125	.07	.77	.66	.03	11582.49
3	AMS	706.99	321	.05	.85	.81	.03	16900.97
4	CFA	338.41	8	.32	.74	.52	.12	12139.34
5	CFA	375.83	19	.21	.84	.76	.10	15546.96
6	CFA	35.48	8	.09	.98	.97	.03	11415.04

Note: Model 1 is specified as the model described in the current study and is a path model with a four-factor (time, strain, behavior, and energy) measurement component on the dependent variables. Model 2 is identical to Model 1, but is a strict path model, and does not feature a measurement component. Model 3 is identical to Model 1, but features a three-factor (time, strain, and energy) measurement component on the dependent variables. Model 4 is specified by three factors (work-based time, strain, and behavior conflict) loading onto WIF conflict and by three factors (family-based time, strain, and behavior conflict) loading onto FIW conflict. Model 5 is specified by four factors (work-based time, strain, behavior, and energy conflict) loading onto WIF conflict and by four factors (family-based time, strain, behavior, and energy conflict) loading onto FIW conflict. Model 6 is specified by three factors (work-based time, strain, and energy conflict) loading onto WIF conflict and by three factors (family-based time, strain, and energy conflict) loading onto FIW conflict. CFA stands for confirmatory factor analysis and is a statistical technique used to evaluate the structure and construct validity of a hypothesized measurement model (Jöreskog, 1969).

Appendix: Measures and Scales

Work-Family Conflict

*Instructions: Please think about **the interactions between your work and family responsibilities** and indicate the response which best describes your experience, where 1 indicates "Strongly Disagree" and 6 indicates "Strongly Agree". If the question does not apply to you, then mark NA.*

Time-based conflict items

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. The time I spend on family responsibilities often interferes with my work responsibilities.
5. The time I spend with my family often causes me not to spend time in activities or work that could be helpful to my career.
6. I have to miss work activities due to the amount of time I must spend on family responsibilities.

Strain-based conflict items

7. When I get home from work I am often too frazzled to participate in family activities/responsibilities.
8. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.
9. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.
10. Due to stress at home, I am often preoccupied with family matters at work.
11. Because I am often stressed from family responsibilities, I have a hard time concentrating on my work.
12. Tension and anxiety from my family life often weakens my ability to do my job.

Behavior-based conflict items

13. The problem-solving behaviors I use in my job are not effective in resolving problems at home.
14. Behavior that is effective and necessary for me at work would be counterproductive at home.
15. The behaviors I perform that make me effective at work do not help me to be a better parent or spouse/significant other.
16. The behaviors that work for me at home do not seem to be effective at work.

17. Behavior that is effective and necessary for me at home would be counterproductive at work.
18. The problem-solving behaviors that work for me at home do not seem to be as useful at work.

Energy-based conflict items

19. When I get home from my job, I do not have the energy to do work around the house.
20. Because I am often tired after work, I don't see friends as much as I would like.
21. When I get home from work I often do not have the energy to be a good parent.
22. After work I am often too tired to do things with my spouse/significant other.
23. My family responsibilities leave me too fatigued to perform my job effectively.
24. Spending time with my friends saps my energy and keeps me from working effectively.
25. I am often tired at work, due to my parental responsibilities.
26. I often feel tired when I am at work, due to my role as a spouse/significant other.

Work-role conflict

*Instructions: Please think about the **tasks and responsibilities you have at your job** and respond to the questions below on a scale of "1" (Strongly Disagree) to "5" (Strongly Agree).*

1. I have to do things that should be done differently.
2. I work under incompatible policies and guidelines.
3. I receive assignments without the manpower to complete it.
4. I have break rules or policies in order to complete assignments.
5. I receive incompatible requests from two or more people.
6. I receive assignments without adequate resources and materials to complete them.
7. I work on unnecessary things.
8. I have to work under vague directives or orders.

Family-role conflict

*Instructions: Please think about the **family tasks and responsibilities you have** and respond to the questions below on a scale of "1" (Strongly Disagree) to "5" (Strongly Agree).*

1. Tasks at home should be handled differently than they are now.
2. Family members have incompatible expectations of me.
3. I feel that my family responsibilities demand more of me than I can provide.
4. I often have to disappoint one family member to please another.
5. I often receive incompatible requests from two or more family members.
6. I am asked to do things that I do not have the available resources to accomplish.

7. Most of the tasks I am asked to undertake at home aren't really necessary.
8. The expectations family members have of me are often vague.

Work-role overload

*Instructions: Please think about the **tasks and responsibilities you have at your job** and respond to the questions below on a scale of "1" (Definitely False) to "4" (Definitely True).*

1. I don't have time to finish my work tasks.
2. I'm often rushed in doing my job.
3. I have a lot of free time on my job.

Family-role overload

*Instructions: Please think about the **tasks and responsibilities you have at home** and respond to the questions below on a scale of "1" (Definitely False) to "4" (Definitely True).*

1. I don't have time to finish my family responsibilities.
2. I'm often rushed when doing family-related tasks.
3. Family tasks leave me with a lot of free time.

Organizational support

*Instructions: Please think about the **organization you work for** and respond to the questions below on a scale of "1" (Strongly Disagree) to "7" (Strongly Agree).*

1. The organization values my contributions to its well-being.
2. If the organization could hire someone to replace me at a lower salary it would do so.
3. The organization fails to appreciate any extra effort from me.
4. The organization strongly considers my goals and values.
5. The organization would understand if I had a long absence due to illness.
6. The organization would ignore any complaint from me.
7. The organization disregards my best interests when it makes decisions that affect me.
8. Help is available from the organization when I have a problem.
9. The organization really cares about my well-being.
10. The organization is willing to help me if I need a special favor.
11. The organization cares about my general satisfaction at work.
12. If given the opportunity, the organization would take advantage of me.
13. The organization shows very little concern for me.
14. The organization cares about my opinions.
15. The organization takes pride in my accomplishments at work.
16. The organization tries to make my job as interesting as possible.

Family social support

Instructions: Please think about the support you receive from family members and respond to the questions below on a scale of "1"(Strongly Disagree) to "5" (Strongly Agree).

1. When I talk with them about my work, my family members don't really listen.
2. My family members do not seem very interested in hearing about my day.
3. When I have a tough day at work, family members try to cheer me up.
4. Members of my family are interested in my job.
5. When I'm frustrated by my work someone in my family tries to understand.
6. Members of my family always seem to make time for me if I need to discuss my work.
7. Members of my family don't want to listen to my work-related problems.
8. Someone in my family helps me feel better when I'm upset about my job.
9. Members of my family enjoy hearing about my achievements at work.
10. When I have a problem at work, members of my family express concern.
11. My family members are sympathetic when I'm upset about my work.
12. My family members do their fair share of household chores.
13. My family leaves too much of the daily details of running the house to me.
14. Members of my family help me with routine household tasks.
15. Too much of my time at home is spent picking up after my family members.

Job involvement

*Instructions: Please think about **your current job** and respond to the questions below on a scale of "1" (Strongly Disagree) to "6" (Strongly Agree).*

1. The most important things that happen to me involve my present job.
2. To me, my job is only a small part of who I am.
3. I am very much involved personally in my job.
4. I live, eat, and breathe, my job.
5. Most of my interests are centered around my job.
6. I have strong ties with my present job that would be difficult to break.
7. Usually I feel detached from my job.
8. Most of my personal life goals are job oriented.
9. I consider my job to be very central to my existence.
10. I like to be absorbed in my job most of the time.

Family involvement

*Instructions: Please think about **your family** respond to the questions below on a scale of "1" (Strongly Disagree) to "6" (Strongly Agree).*

1. The most important things that happen to me involve my family.
2. To me, my family is only a small part of who I am.

3. I am very much involved personally in my family.
4. I live, eat, and breathe, my family.
5. Most of my interests are centered around my family.
6. I have strong ties with my family that would be difficult to break.

7. Usually I feel detached from my family.
8. Most of my personal life goals are family oriented.
9. I consider my family to be very central to my existence.
10. I like to be absorbed in my family most of the time.

Individualism-Collectivism

*Instructions: Consider **your personal values and preferences** and respond to the questions below on a scale of "1" (Strongly Disagree) to "7" (Strongly Agree).*

Individualism items

1. I'd rather depend on myself than others.
2. I rely on myself most of the time; I rarely rely on others.
3. I often "do my own thing".
4. My personal identity, independent of others, is very important to me.
5. It is important that I do my job better than others.
6. Winning is everything.
7. Competition is the law of nature.
8. When another person does better than I do, I get tense and aroused.
9. If a coworker gets a prize, I would feel proud.

Collectivism items

10. The well-being of my coworkers is important to me.
11. To me, pleasure is spending time with others.
12. I feel good when I cooperate with others.
13. Parents and children must stay together as much as possible.
14. It is my duty to take care of my family, even when I have to sacrifice what I want.
15. Family members should stick together, no matter what sacrifices are required.
16. It is important to me that I respect the decisions made by groups I belong to.

Demographics

What is your gender?　　　　1. Male　　　　　　2. Female
Please indicate your current age: _____
How many hours do you work, on average, each week? _____
How many hours do you spend on family-related tasks, on average, each week?
_____
How many family members do you have living with you at home? _____

How many children do you have living with you at home? _____

Does your current job pay you on an hourly (non-exempt), salaried (exempt), or commission-based wage?

1. Hourly/non-exempt 2. Salaried/exempt 3. Commission

Which of the following income brackets most accurately describes how much money you make in *wages from your job* annually.

1. Less than $15,000 2. $15,001-$30,000 3. $30,001-$45,000 4. $45,001-$60,000 5. $60,001- $75,000 6. $75,001 -$90,000 7. $90,001- $105,000 8. $105,001-$120,000 9. $120,000+

How much of your household's total income do your wages provide, approximately?

1. 0-20% 2. 21-35% 3. 36-50% 4. 51-65% 5. More than 65%

What level of education do you currently have?

1. I have not yet completed high school/G.E.D. 2. High School Diploma/G.E.D. 3. Less than two years of college 4. An Associate's Degree/More than two years of college 5. A Bachelor's Degree/4-year degree 6. Some post-graduate education, but not a Master's Degree or equivalent 7. Master's Degree/Postgraduate degree 8. Ph.D./M.D./J.D. or similar

What level of education is required to hold your current position at your job?

1. No educational requirements 2. High School Diploma/G.E.D. 3. Less than two years of college 4. An Associate's Degree/More than two years of college 5. A Bachelor's Degree/4-year degree 6. Some post-graduate education, but not a Master's Degree or equivalent 7. Master's Degree/Postgraduate degree 8. Ph.D./M.D./J.D. or similar

Choose the option below which best describes how many years of training or preparation would someone need to hold your current position?

1. Less than 1 year/Very little preparation

2. 1-2 years/Some preparation

3. 2-3 years/Moderate preparation

4. 3-5 years/Considerable preparation

5. 5 or more years/Extensive preparation

How would you identify your race/ethnicity?

1. White (not Hispanic) 2. Black/African American 3. Hispanic 4. East Asian/South Asian/Pacific Islander 5. Middle Eastern/Arab/Persian 6. Native American 7. Other (Please specify) _____

Are you mixed race/ethnicity? If so, please indicate **all** races/ethnicities you belong to.

1. I am not mixed race. 2. White (not Hispanic) 3. Black/African American 4. Hispanic 5. East Asian/South Asian/Pacific Islander 6. Middle Eastern/Arab/Persian 7. Native American 8. Other (Please specify) _____

Please indicate what type of industry you currently work in:

1. Accommodation, Hospitality, or Food Services

2. Administrative or Support Services

3. Agriculture, Forestry, Fishing, or Hunting

4. Arts, Entertainment, or Recreation

5. Construction
6. Educational Services
7. Finance and Insurance
8. Government
9. Health Care and Social Assistance
10. Information
11. Management of Companies or Enterprises
12. Manufacturing
13. Military
14. Mining, Quarrying, or Oil and Gas Extraction
15. Other services (Except Public Administration)
16. Professional, Scientific, and Technical Services
17. Real-estate and Rental and Leasing
18. Retail or Retail Trade
19. Self-employed
20. Transportation and Warehousing
21. Utilities