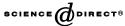


Available online at www.sciencedirect.com



Journal of Vocational Behavior 64 (2004) 108-130

Vocational Behavior

www.elsevier.com/locate/jvb

Considering the role of personality in the work–family experience: Relationships of the big five to work–family conflict and facilitation

Julie Holliday Wayne,* Nicholas Musisca, and William Fleeson

Department of Psychology, Wake Forest University, Winston-Salem, NC 27109, USA

Received 4 June 2002

Abstract

Using a national, random sample (N = 2130), we investigated the relationship between each of the Big Five personality traits and conflict and facilitation between work and family roles. Extraversion was related to greater facilitation between roles but was not related to conflict, whereas neuroticism was related to greater conflict but only weakly related to facilitation. Conscientiousness was related to less conflict, presumably reflecting efficient time use and organizational skills. In general, conflict was negatively related to work–family outcomes (e.g., lower job and family effort and satisfaction) whereas facilitation was positively related to the same outcomes. Conflict and facilitation were shown, however, to be orthogonal rather than opposite constructs. Implications for work–family theory, for the understanding of personality traits, and for enhanced responsibilities of organizations are discussed.

© 2003 Elsevier Science (USA). All rights reserved.

Keywords: Work-family conflict; Work-family facilitation; Big-five; Personality; Job satisfaction

[★] We thank Stacey Smoot for help with this line of work and Leslie Hammer for thoughtful comments on an earlier version of this manuscript. We also acknowledge the generous support of the John D. and Catherine T. MacArthur Foundation Research Network on Successful Midlife Development (Director: Orville Gilbert Brim).

^{*}Corresponding author. Fax: +336-758-4733. E-mail address: waynej@wfu.edu (J.H. Wayne).

1. Introduction

All employees must balance the demands of their work and nonwork lives. Despite important advances in the work–family literature, two important gaps in our knowledge still exist. First, individual differences in the way people balance work and family have largely been ignored (Sumer & Knight, 2001). And, "few studies have acknowledged the possibility that work and family roles can have positive or enriching effects on one another" (Greenhaus & Parasuraman, 1999, p. 395). The purpose of the present study is to advance previous research in three ways. Using a large, nationally representative sample, we examine personality as an antecedent to conflict; we consider the facilitation employees may experience between work and family in addition to the more commonly studied conflict, and we examine the relation of conflict and facilitation to role outcomes.

Work-family research has relied almost exclusively on the scarcity perspective which suggests that engaging in work and family roles results in interrole conflict (e.g., Greenhaus & Beutell, 1985). Work-family conflict (WFC) is defined as when participation in one role is made more difficult by virtue of participation in the other role (Greenhaus & Beutell, 1985). The WFC model developed by Kopelman, Greenhaus, and Connolly (1983) and adopted by many researchers suggests that structural factors within work and family domains are of primary importance to the experience of WFC. We propose that although structural features may be the primary contributors, they are likely not the only ones and that personality of the individual is likely to be an important contributor. Researchers have begun to address the predictive power of personality variables and have found negative affectivity to be directly related to greater WFC (Carlson, 1999) and related to WFC through its indirect effect on job stress (Stoeva, Chiu, & Greenhaus, 2002). The results for Type A have been mixed (Burke, 1988; Burke, Weir, & DuWors, 1980; Carlson, 1999). Initial success with these few specific traits suggests it is time to use a comprehensive assessment of personality, such as the Big Five (McCrae & John, 1992), to more fully investigate the role of personality in WFC (Carlson, 1999).

Because of the focus on the conflict perspective, most researchers use scales that emphasize the negative implications of one role for the other (Kossek & Ozeki, 1998). Researchers, and particularly sociological theorists (e.g., Marks, 1977; Sieber, 1974), however, have persuasively argued for the benefits of multiple role occupation such as providing security, a sense of purpose in life, enhanced self-esteem (Thoits, 1987), social support, and buffering against role failure (Barnett & Hyde, 2001). Research documents the benefits of engaging in work and family roles to mental, physical, and relationship health (Barnett & Hyde, 2001), and the rewards of combining personal and professional lives may outweigh the costs (Barnett, 1998). Rather than experiencing only conflict, facilitation between roles may also occur which we define as occurring when participation in one role is made better or easier by virtue of participation in the other role. The degree to which an employee experiences facilitation is likely to be influenced by his or her personality. It would be informative to examine the personality antecedents to and the consequences of facilitation on work and family outcomes.

Finally, broadly representative samples are needed to conclusively generalize findings to diverse types of organizations and families. Although research on WFC is extensive, much of the research to date has studied dual career couples and often focuses on one or two occupations within a study (e.g., Bedeian, Burke, & Moffett, 1988; Cooke & Rousseau, 1984; Greenglass, Pantony, & Burke, 1988; Netemeyer, Boles, & McMurrian, 1996). Kossek and Ozeki (1998) urged researchers to use large heterogeneous populations with individual and organizational diversity to have more confidence that findings are generalizable.

The present study was intended to address these needs in the work–family literature. First, we examine the predictive power of the Big Five personality traits in relation to conflict and facilitation. Second, we do so using a comprehensive framework that includes both directions of influence (i.e., work-to-family and family-to-work) and both valences (i.e., conflict and facilitation). Third, we examine the consequences of conflict and facilitation on job and family effort and satisfaction. A final contribution is the use of a large, national random sample such that the results should allow generalization across organizations and occupations.

1.1. Work-family conflict

According to the traditional view of multiple role occupation, conflict is expected to occur when too many demands are placed on one's limited time and energy (Sieber, 1974). Greenhaus and Beutell (1985) suggested that conflict arises when (i) time pressures associated with one role make it difficult to comply with expectations from the other role or produce a preoccupation with one role while physically attempting to fulfill the other role, (ii) exposure to stress in one domain leads to tension, fatigue, and irritability (i.e., strain) which affects one's ability to perform in the other domain, or (iii) the behaviors required in one role are incompatible with the behaviors needed in the other role. They also proposed that conflict occurs bidirectionally such that WFC is the negative interference from one's work role to his or her family role. Family-work conflict (FWC) is the negative interference from one's family role to his or her work role. In the present study, our measure captures conflict created by two of the forms of role pressure incompatibility proposed by Greenhaus and Beutell (1985): time and strain. Theoretically, then, personality traits that enable an employee to use his or her time more efficiently, to engage in roles with more energy, to perceive less stress, or to adopt coping mechanisms that reduce stress, should be related to less conflict.

1.2. Work–family facilitation

Unlike conflict, there is no single established definition of facilitation, set of theoretical processes by which it is expected to occur, and no widely used or readily accepted scales, either. Therefore, for purposes of the present study, work–family facilitation was defined as occurring when, by virtue of participation in one role (e.g., work), one's performance or functioning in the other role (e.g., family) is enhanced. Although there is no consensus as to the processes by which facilitation occurs, researchers have theorized facilitation as arising from several potential sources.

Facilitation might arise, for example, when involvement in one role leads to privileges, resources, security from role failure, and/or personality enrichment (Sieber, 1974) which then lead to improved functioning in the other domain. Others have suggested that facilitation can occur when the activities and performance in one role energize employees for the other role, when the social support they receive (Barnett & Hyde, 2001) or the skills and attitudes they acquire in one role are useful in the other (Crouter, 1984), or when they have "greater confidence and better moods in one role as a result of experiences in the other role..." (Stephens, Franks, & Atienza, 1997, p. 32). Through processes such as these, involvement in one role serves to positively influence the other role.

Given that facilitation theory and research are in their infancy, no single process that has been discussed likely captures it in its entirety. Therefore, in our conceptualization, we incorporated several of the processes by which others have suggested that facilitation can occur. Also, we conceptualized facilitation as occurring bidirectionally. Work–family facilitation (WFF) was operationalized in the present study as occurring when one's involvement in work provides skills, behaviors, or positive mood which positively influences the family. Family–work facilitation (FWF) was operationalized as occurring when one's involvement in family results in positive mood, support, or a sense of accomplishment that helps him or her cope better, work harder, feel more confident, or reenergized for one's role at work.

1.3. The role of personality

As personality researchers have indicated, one comprehensive description of an individual's traits is known as the Big Five (McCrae & John, 1992). The five-factor model is a hierarchical organization of personality traits in terms of five orthogonal dimensions including Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (McCrae & John, 1992). The basic dimensions of the five factors have been shown to organize the hundreds of personality traits proposed by theorists (McCrae & Costa, 1991), to have convergent and discriminant validity, to endure across decades in adults (McCrae & Costa, 1990), to describe individual differences in behavior (Fleeson, 2001), and to be at least somewhat replicable in some other cultures (DeRaad, 1998). Thus, the Big Five seems appropriate for capturing a broad picture of an individual's personality.

Personality, and specifically the Big Five, has been shown to influence behavior patterns and interpretations of objective situations in a variety of life domains (Matthews & Deary, 1998). To develop the study's hypotheses, we discuss the potential influence of traits on conflict by virtue of their influence on one's use of time and/or the perception or experience of strain, as reflected in our operationalization of conflict. Regarding facilitation, we discuss the influence of traits on the transfer of positive mood, enhancement of self-esteem and confidence, support received, and transfer of skills and behaviors from one domain to another.

Conscientiousness includes achievement orientation, dependability, orderliness, efficiency, organization, planfulness, responsibility, thoroughness, and hardworkingness (Barrick & Mount, 1991; Judge & Higgins, 1999; McCrae & John, 1992).

Careful planning, effective organization, and efficient time management may allow an individual to accomplish more in the time available, which should reduce incompatible time pressures, and also, possibly reduce stress and strain, thereby reducing conflict. Thus, we predict a negative relationship between conscientiousness and conflict (Hypothesis 1). Conscientious individuals are more likely to thoroughly and correctly perform tasks. Successful accomplishment in a role is likely to result in positive mood, enhanced self-esteem, and appreciation by role partners, and hence, facilitation. Thus, conscientiousness is expected to be positively related to facilitation (Hypothesis 2).

Neuroticism generally refers to anxiety, insecurity, defensiveness, tension, and worry (Barrick & Mount, 1991; Judge & Higgins, 1999; McCrae & John, 1992). Such characteristics may lead individuals to experience more job and family stress which, in turn, increases the degree of conflict experienced (Stoeva et al., 2002). Neurotics may also have less time available to accomplish work and family tasks because they spend time worrying or focusing on negative affect. Because neuroticism is likely to be related to less efficient time use, greater preoccupation with role demands, and increased perceptions of or experience of stress, neuroticism is expected to be positively related to conflict (Hypothesis 3). However, neuroticism has generally been found to have no relationship to positive events rather than a negative relationship (David, Green, Martin, & Suls, 1997), so we predict that neuroticism is not related to facilitation (Hypothesis 4).

Extraversion describes someone who is active, assertive, energetic, enthusiastic, outgoing, and talkative (McCrae & John, 1992). Two characteristics of extraverts, positivity and energy, are most likely to be relevant to conflict and facilitation. Due to higher energy levels, extraverts may accomplish more tasks in a given amount of time and may also experience less fatigue than do introverts. Moreover, by focusing on the positive aspects of situations, they may perceive situations as less stressful. Because the positivity and energy of extraverts likely results in less strain and fewer time pressures, we predict that extraversion is negatively related to conflict (Hypothesis 5). With regards to facilitation, extraverts experience more positive affect (Diener & Lucas, 1999), more readily attend to positive events and react more strongly to them (Rusting & Larsen, 1998), and have more energy than do introverts so that they are likely to have more positive mood and energy to transfer across domains. Thus, we predict a positive relationship between extraversion and facilitation (Hypothesis 6).

Agreeableness is described by cooperation, likeability, forgivingness, kindness, sympathy, and trust (McCrae & John, 1992). Greenhaus and Beutell (1985) suggest that strain, conflict, and the absence of support contribute to work–family conflict. The characteristics associated with agreeableness may lead to less interpersonal conflict and greater support which should consequently reduce work–family conflict. Thus, we predict a negative relationship between agreeableness and conflict (Hypothesis 7). Persons higher in agreeableness are more likely to experience success at work (Zellars & Perrewe, 2001) and receive greater emotional support from coworkers (Zellars & Perrewe, 2001) or family members. As such, we expect agreeableness to be positively related to facilitation (Hypothesis 8).

Openness to experience is characterized by intelligence, unconventionality, imagination, curiosity, creativity, and originality (Barrick & Mount, 1991; McCrae &

John, 1992). Much less is known about openness than the other four traits. Persons higher in openness are more accepting of change, not stifled by tradition, and are likely to be creative in developing solutions when conflict arises, all of which may reduce conflict. Similarly, individuals higher in openness might be more willing to transfer new skills and behaviors learned in one domain to benefit another. Thus, we predict that openness is negatively related to conflict (Hypothesis 9) and positively related to facilitation (Hypothesis 10).

1.4. Consequences of conflict and facilitation

In addition to examining personality antecedents to conflict and facilitation, it is important to consider the relationship of each to work and family outcomes. The scarcity perspective states that individuals do not have the resources to fulfill various roles and that they must participate in one role at the expense of the other (Barnett, 1998). In research examining the consequences of conflict, the primary hypothesis has been that WFC is negatively related to both job *and* family outcomes, but a precise explanation has not been offered other than that conflict is a type of stressor and that stressors are related to affective outcomes (Frone, Russell, & Cooper, 1992). Frone, Yardley, and Markel (1997), however, put forth a conceptual model in which they hypothesize that, for each direction of conflict (e.g., WFC), antecedents exist in the originating domain of the conflict (e.g., work) whereas the outcomes exist in the receiving domain (e.g., family). They reasoned that when involvement in one role frequently interferes with involvement in the other role, performance and the quality of life in the second role suffers.

Consistent with Frone et al.'s (1997) argument, some studies have found that WFC is negatively related to family satisfaction whereas FWC is negatively related to job satisfaction (e.g., Carlson & Kacmar, 2000; Carlson, Kacmar, & Williams, 2000; Frone et al., 1992, 1997). Other research, however, has found relationships that contradict this hypothesis. For example, WFC is positively related to withdrawal from work responsibilities (MacEwen & Barling, 1994) and negatively related to organizational commitment (e.g., Lyness & Thompson, 1997; Netemeyer et al., 1996), job performance (e.g., Aryee, 1992; Frone et al., 1997), and job and life satisfaction (Kossek & Ozeki, 1998). In their meta-analytic review, Kossek and Ozeki (1998) found that WFC is more strongly related to job and life satisfaction than is FWC. Although the empirical support is mixed, we relied on Frone et al.'s rationale to make predictions in the present study. Thus, we predicted that WFC would be negatively related to family effort and satisfaction (Hypothesis 11) and that FWC would be negatively related to job effort and satisfaction (Hypothesis 12).

To date, no empirical research documents the relationship of facilitation to work attitudes or behaviors. Sociological theory (e.g., Marks, 1977; Sieber, 1974) suggests that multiple roles may energize workers and enhance performance rather than drain energy away from roles (Kirchmeyer, 1992a, 1992b, 1993). In the absence of empirical research and theoretical development of facilitation, it is difficult to speculate how specific directions of facilitation might influence work and/or family outcomes. Applying Frone et al.'s (1997) rationale to facilitation, though, suggests that when

involvement in one role (e.g., work) frequently enhances one's involvement in the other role (e.g., family), then performance and quality of life in the second role should improve. Because conflict and facilitation are likely not opposite constructs (Greenhaus & Parasuraman, 1999), whether Frone et al.'s (1997) rationale holds for facilitation is an empirical question addressed in the present study. We hypothesized that WFF would be positively related to family effort and satisfaction (Hypothesis 13) and that FWF would be positively related to job effort and satisfaction (Hypothesis 14).

2. Method

The data come from a large, multi-purpose, interdisciplinary study conducted in 1995 by the John D. and Catherine T. MacArthur Research Network on Successful Midlife Development (MIDMAC), and several other publications have resulted from these data (see Brim, Ryff, & Kessler, in press, for an overview) including some on work–family spillover (Grzywacz, 2000; Grzywacz & Marks, 2000a, 2000b). Only information specifically relevant to this report will be described. More detail on the method can be obtained in Brim et al. (in press).

2.1. Participants

A random-digit dialing procedure was used to identify the sample. A computer-generated random 10-digit number from within the US was called. The person who answered the phone was told that the survey was conducted by the Harvard Medical School and that its purpose was to study health and well-being during the middle years of life. The person then listed the members of the household, and one individual from among them was randomly chosen. Then, based on gender and age-based quotas designed to increase the number of older individuals and men in the study, the individual had a predefined probability of being eligible to participate. Approximately 70% of eligible individuals agreed to complete a 30-min phone interview and a 2-h written questionnaire, a typical response rate for interview surveys (Babbie, 1990). Participants received \$20 and a boxed pen for participation.

Most of the data in the present report come from the written questionnaire, completed by 87% (N=3032) of the phone-interview participants. The current analyses describe only the 2130 participants who were employed at the time of the survey, as indicated by an affirmative response to the question: "Are you currently doing any work for pay? This includes self-employment as well as being employed by someone else and any job for pay from which you are temporarily on leave or laid off." None-theless, on an earlier telephone question, 54 of these 2130 participants reported being unemployed, laid off, on maternity or sick leave, or permanently disabled, so they were instructed to think about the job from which they were on leave. Approximately 30% of the original sample was either unemployed and seeking employment, retired, or chose not to be employed (e.g., women who were caregivers for their children). The resulting sample covered the age range of 25-74 years (M=44, SD=11), was 52%

male, 69% married, 80% parents, and worked an average of 41.3 h/week (after recoding all scores greater than 80 as 80 to prevent outliers from dominating the results). Given the sampling procedure and high response rate, the result is a large, diverse sample from all regions of the country covering a variety of racial-ethnic groups and socio-economic levels. It is also occupationally diverse including respondents from, among others, the industries of agriculture, construction, manufacturing, transportation, wholesale, retail, finance, personal services, and public administration.

2.2. Measures

The following items were widespread over two separate questionnaire booklets and a telephone interview and were interspersed with items across multiple disciplines referring to health, income, coping, emotion, neighborhood, religion, prejudice, and other disparate topics. We discuss only items used in the present study.

Work-family spillover. Items were written to symmetrically describe two directions of influence (family-to-work and work-to-family) and two valences (negative, or conflict, and positive, or facilitation). Four items were written to assess each dimension. The conflict items assessed the extent to which time pressures and strain in one role interfered with performance in the other role and some are similar to items used in established scales (e.g., Gutek, Searle, & Klepa, 1991; Kopelman et al., 1983). Our conflict measure, like most measures until recently (Carlson et al., 2000), did not examine behavior-based conflict. The WFF items assessed the extent to which the skills, behaviors, or positive mood from work positively influenced one's role in the family. The FWF items measured the extent to which the positive mood, behaviors, sense of accomplishment, support or resources received at home positively affected one's work role. Stephens et al. (1997) noted that measures of positive and negative spillover are best represented as conceptually distinct processes rather than opposite ends of a single continuum. Thus, the conflict and facilitation scales used in the present study were not intended to be parallel because the processes involved in each are distinctly different. Moreover, although other measures of conflict typically include parallel items across directions, it is unclear theoretically at this point if the processes by which work facilitates family are parallel to the processes by which family facilitates work. In the present study's measures of conflict and facilitation, the items from each direction were not parallel. Initial reliability and validity evidence of this measure were evaluated in a pilot study (N = 1000) before inclusion in the final study, and these same scales have been reported previously in the work-family literature (e.g., Grzywacz, 2000; Grzywacz & Marks, 2000a, 2000b).

An example item for work-to-family conflict was "Your job reduces the effort you can give to activities at home;" for work-to-family facilitation: "The things you do at work help you deal with personal and practical issues at home;" for family-to-work conflict: "Responsibilities at home reduce the effort you can devote to your job;" and for family-to-work facilitation: "Talking with someone at home helps you deal with problems at work." Participants indicated how often they had experienced each

during the last year on a five-point scale ranging from (1) all the time to (5) never. Items were scored such that higher scores meant more conflict or facilitation (all items are presented in Appendix A).

Both varimax and oblimin rotations of a principal components factor analysis reproduced the theoretical structure. Specifically, four orthogonal factors emerged, each with four items representing one direction and one valence of spillover. Thus, the two directions and valences emerged as meaningful descriptions of spillover, with clear convergence within items and clear distinction between directions and valences. That is, facilitation was independent of conflict, rather than being its opposite. Scale scores were created by taking the mean of the four relevant items and internal consistency reliabilities (Cronbach's alpha) were good: WFC (α = .82), FWC (α = .80), WFF (α = .72), and FWF (α = .68). Correlations among the scales further demonstrated their relative independence. Most importantly, conflict was unrelated to facilitation, rather than opposite, WFC–WFF r = .00, FWC–FWF r = .02. Three of the six correlations among the four scales reached significance: WFC–FWC r = .50, p < .001; WFF–FWF r = .35, p < .001; and FWC–WFF r = .14, p < .001. These correlations suggest that each direction of spillover is accompanied by the other direction (but the same valence).

Big-Five personality traits. In addition to the familiar phrase-based assessment of the Big Five (e.g., the NEO-PI, Costa & McCrae, 1985), the adjective-based approach is traditional and has robust reliability and validity (Briggs, 1992; Goldberg, 1990, 1992). The Midlife Development Inventory (MIDI) adjectives were taken from existing trait lists and inventories (Goldberg, 1992; John, 1990; Trapnell & Wiggins, 1990) and their reliability and validity were evaluated in a pilot study (N = 1000) before final selections were made. In addition to the evidence presented in the current paper, the current Big Five scales have established reliability and validity (see Lachman & Bertrand, 2001; Lachman & Weaver, 1997). Participants rated how well each of 30 adjectives described them on four-point scales (1 = a lot to 4 = not at all). A varimax factor analysis of the 30 adjectives reproduced the theoretically expected structure except for the following variations: outgoing, lively, and talkative had slightly higher loadings on agreeableness than on extraversion (although they also loaded on extraversion), active and adventurous had slightly higher loadings on openness than on extraversion (although they also loaded on openness), and broad-minded and sophisticated split off to form a sixth factor. Oblimin rotation produced a very similar structure. Thus, the items showed fairly strong construct validity. Further, Cronbach alpha reliabilities for each factor were reasonable and within the typical range: Extraversion, .85 (outgoing, self-confident, forceful, lively, assertive, outspoken, active, talkative, adventurous, and dominant); Agreeableness, .83 (helpful, friendly, warm, caring, softhearted, and sympathetic); Conscientiousness, .60 (organized, responsible, hardworking, and careless*); Neuroticism, .74 (moody, worrying, nervous, and calm*); Openness to Experience, .76 (creative, imaginative, intelligent, curious, broad-minded, and sophisticated). Scale scores were created by taking the mean of the items for a given trait (all adjectives were reverse scored except those with an asterisk), such that higher scores meant more of the trait.

Outcomes. The four outcome variables for the present study (job satisfaction, job effort, family satisfaction, and family effort) were drawn from several places in the questionnaire. Job satisfaction was assessed with a single item in which participants responded on an 11-point scale from (0) the worst possible work situation overall to (10) the best possible work situation overall, with higher scores representing greater job satisfaction. The amount of effort put into one's job was assessed using an 11-point scale where (0) indicated the individual put no thought or effort into his or her work and (10) indicated that the individual put very much thought and effort into work. Family satisfaction and family effort were each averaged from two items. Family satisfaction was the average of participants' ratings from 0 to 10 of the quality of their marriage and of the quality of their relationship with their children (r = .23 between the two items). Family effort was the average of participants' ratings from 0 to 10 of the amount of thought or effort they put in to their marriage or close relationship and the amount of thought or effort they put in to their relationship with their children (r = .28 between the two items). Individuals with no children received the same scores as their ratings of their marriage (only 17 of 231 childless and unmarried individuals provided ratings of these items).

Control variables. Because gender (Greenglass et al., 1988), marital status, parental status (Kinnunen & Mauno, 1998), number of hours worked (Maraist, 1999), and education level are likely to influence WFC, these variables were used as control variables. Gender was coded as (1) male and (2) female. Marital status was scored as either (1) currently in a marriage or "close, marriage-like relationship" or (0) not. Parental status was scored as either (0) no children or (1) at least one child. Highest educational degree consisted of four categories: (1) less than high school, (2) high school or equivalent, (3) 4-year college, or (4) post-graduate degree. Weekly work hours was scored as the number of hours worked per week, except that hours greater than 80 were recoded as 80 to avoid outliers dominating the results.

3. Results

Because of the size of this sample, we used a stricter α level of .01 to reduce the likelihood of a Type I error with little risk of increased Type II errors. Means, SD, and correlations for all of the study variables are displayed in Table 1.

The central question in this study was whether personality predicts conflict and facilitation between work and family. Four sets of hierarchical regressions were performed predicting each direction of conflict (WFC and FWC) and facilitation (WFF and FWF) from the Big-Five personality factors. In each set of regressions, one of the four work–family spillover variables was the dependent variable and first gender, marital status, parental status, highest education degree earned, and weekly hours worked were controlled by including them as independent variables. Next, the Big-Five traits were entered simultaneously as independent variables. The unstandardized slopes from the final model in each set of regressions are

Descriptive statistics for work–family spillover, big-five traits, and outcomes

Variable	Mean	QS	2.	3.	4.	5.	.9	7.	∞.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
1 West Completed of	67.0			9	2	10	16	1.1	3 €		,,	2		1.7	8	5	20	10	6
1. work—ramily commen				2	4	2	-10	/ [-	CC	201	55	1	17-	17	50-	4	001	10	67
2. Work-family facilitation				4	35	22	17	10	60-	22	25	24	90	07	90	02	04	60	05
3. Family–Work conflict					02	90-	-10	-20	32	-07	-13	80-	-23	-07	03	05	05	90	80
4. Family-Work facilitation						24	19	15	60-	14	11	50	30	24	-05	19	80	-04	13
5. Extraversion							35	26	-13	09	11	20	11	18	-05	-01	-01	80	10
6. Agreeableness	3.49							31	-07	36	10	17	24	29	25	-04	9	-05	-08
7. Conscientiousness	3.43								-20	24	13	22	16	17	13	01	90	80	05
8. Neuroticism	2.23									-14	-23	-07	-20	80-	13	-04	-05	60-	-02
9. Openness to experience	3.09										07	16	80	11	90-	80-	-10	20	05
10. Job satisfaction	7.36											38	25	16	05	03	90	05	-01
11. Work effort	8.29												23	32	8	05	10	03	13
12. Family satisfaction	8.31													49	-01	03	9	-02	01
13. Family effort	8.32	1.60													10	01	01	-04	05
14. Gender	1.48															-18	05	-05	-29
15. Marital status	69.																56	-03	8
16. Number of children	80																	-16	-02
17. Education	1.39																		05
18. Hours work	41.38																		

Note. N = 1857–2124. Decimal points were omitted from correlations to conserve space. SD, standard deviation. For gender, marital status, and parental status, higher numbers mean female, married, and at least one child, respectively.

Predictor	WFC	FWC	WFF	FWF
Gender	.09**	.08**	.14***	02
Marital status	.08**	.06	.05	.30***
Parental status	03	.11**	.08	.02
Education	.10***	.07***	.05	07**
Hours work	.02***	.005***	.004**	.006***
R^2 unique to controls	.09***	.02***	.01***	.05***
Extraversion	03	.02	.15***	.25***
Agreeableness	15***	05	.10	.21***
Conscientiousness	16***	23***	01	.12**
Neuroticism	.38***	.30***	06**	05
Openness to experience	.09	.02	.19***	.00
R^2 unique to traits	.15***	.13***	.07***	.08***
Total R ²	.24***	.15***	.09***	.14***

Table 2
Predictiveness of work–family spillover from the big five and control variables

Note. Results of four multiple regressions, each with one spillover type as a dependent variable and five Big Five traits and five control variables entered simultaneously as predictors. Table entries are unstandardized regression slopes. WFC, work–family conflict; FWC, family–work conflict; WFF, work–family facilitation; FWF, family–work facilitation. N = 2051-2063. For gender, marital status, and parental status, higher numbers mean female, married, and at least one child, respectively.

*** p < .01.
*** p < .001.

depicted in Table 2 (not including the control variables produced very similar results).

3.1. Predicting conflict from the big five

We predicted significant negative relationships between conscientiousness, extraversion, agreeableness, openness to experience, and each direction of conflict, and a significant positive relationship between neuroticism and WFC and FWC. Overall, the model predicting WFC was significant, F(10, 2052) = 66.38, p < .001 and explained 24% of the variance (the Big-Five traits added 15% above the control variables, p < .001). Similarly, the model predicting FWC was significant, F(10, 2051) = 35.54, p < .001 and explained 15% of the variance (the Big-Five traits added 13% above the control variables, p < .001).

As can be seen in Table 2, results indicated that, as predicted in Hypothesis 1, individuals higher in conscientiousness reported less WFC and FWC. Neuroticism was positively related to WFC and FWC as predicted in Hypothesis 3. Hypothesis 7 was partially supported in that agreeableness was negatively related to WFC but not FWC. Contrary to Hypotheses 5 and 9, however, neither extraversion nor openness was related to WFC or FWC. Importantly, the Big Five traits overall were shown to have predictive power in regard to conflict between work and family with these variables together accounting for approximately 15% of the variance.

3.2. Predicting facilitation from the big five

We hypothesized significant positive relationships between conscientiousness, extraversion, openness to experience, and agreeableness and each direction of facilitation (WFF and FWF). Overall, the model predicting WFF (see Table 2) was significant, F(10, 2050) = 19.47, p < .001 and explained 9% of the variance. Similarly, the model predicting FWF was significant, F(10, 2051) = 32.52, p < .001and explained 14% of the variance. Contrary to Hypothesis 4 in which we predicted that neuroticism would not be related to either direction of facilitation, neuroticism was significantly negatively related to WFF. However, the strength of this relationship was quite weak. As predicted in Hypothesis 6, extraversion positively predicted WFF and FWF. Although we predicted that higher scores on openness to experience, conscientiousness, and agreeableness would be related to both directions of facilitation, each of these traits was related to only one direction of facilitation. Specifically, employees higher in conscientiousness and agreeableness reported higher FWF but not higher WFF, providing partial support for Hypotheses 2 and 8, respectively. Finally, openness was significantly and positively related to WFF but not to FWF, partially supporting Hypothesis 10. Above and beyond the control variables, the Big Five traits explained approximately 8% of the variance in facilitation.

3.3. Relating conflict and facilitation to work–family outcomes

The second purpose of this paper was to examine whether conflict and facilitation are predictive of work–family attitudes and behaviors. Specifically, we assessed the relationship of conflict and facilitation to effort in and satisfaction with one's job and family. To do so, we performed four sets of hierarchical regressions with 14 predictor variables: WFC, FWC, WFF, FWF, the Big-Five traits, and five control variables. Personality variables were held constant (i) to avoid spuriously inflating relationships between spillover and outcomes due to relationships between personality and spillover and (ii) to obtain information about the relationships of Big Five traits to outcomes, an important issue in personality psychology (e.g., Diener & Lucas, 1999). Table 3 shows the unstandardized slopes from the final model for each predictor (so as to present fully controlled predictions).

The model predicting job satisfaction was significant, F(14,2033)=38.96, p<.01 and explained 21% of the variance. The model predicting job effort was also significant, F(14,2036)=24.55, p<.01, and explained 14% of the variance. Similarly, the model predicting family satisfaction was significant, F(14,1814)=29.60, p<.01, and explained 19% of the variance. Finally, the model predicting family effort was significant, F(14,1814)=22.13, p<.01, and explained 15% of the variance.

Though not the focus of the present study, it is worth noting that, in addition to conflict and facilitation (described below), several of the Big Five traits were significantly related to work and family outcomes. Neuroticism predicted job satisfaction such that persons higher in neuroticism were less satisfied with their jobs. Job effort was positively related to scores on conscientiousness such that persons higher on

	Job satisfaction	Job effort	Family satisfaction	Family effort
Gender	.13	.14	08	.30***
Marital status	.06	.08	.02	.07
Parental status	.15	.37***	.19	01
Education	.16**	.03	.02	04
Hours work	.01***	.02***	.003	.01**
R^2 unique to controls	.01***	.02***	.00	.01**
Extraversion	.08	.21	06	.22**
Agreeableness	.03	.20	.54***	.65***
Conscientiousness	.15	.49***	.11	.17
Neuroticism	24***	.06	19**	.04
Openness	14	.08	08	04
R^2 unique to traits	.01**	.03***	.03***	.05***
WFC	95***	.01	22***	30***
FWC	.06	29***	32***	.08
WFF	.63***	.40***	10	15**
FWF	.04	.17**	.54***	.38***
R^2 unique to spillover	.14***	.04***	.09***	.04***
Total R ²	.21***	.14***	.19***	.15***

Table 3
Predictiveness of outcomes from work–family spillover, big five traits, and control variables

Note. Results of four multiple regressions, each with one work or family dependent variable and 14 predictors: four work–family spillover types, five Big Five traits, and five control variables. Table entries are unstandardized regression slopes. WFC, work–family conflict; FWC, family–work conflict; WFF, work–family facilitation; FWF, family–work facilitation. N = 1828-2051. For gender, marital status, and parental status, higher numbers mean female, married, and at least one child, respectively.

conscientiousness reported putting more effort into their jobs. Agreeableness positively predicted and neuroticism negatively predicted satisfaction with one's family; and, extraversion and agreeableness were positively related to family effort.

As for relationships between conflict and outcomes, we hypothesized that WFC would be related to less family effort and satisfaction and that FWC would be related to less job effort and satisfaction. After controlling for the personality and structural variables, WFC was significantly and negatively related to family satisfaction and family effort (supporting Hypothesis 11) and also to job satisfaction. Higher scores on FWC were related to less job effort and family satisfaction but unrelated to job satisfaction. Thus, Hypothesis 12 was partially supported.

The relationships between facilitation and these outcomes were also examined. We hypothesized that WFF would be related to greater family effort and satisfaction and that FWF would be related to greater job effort and satisfaction. After controlling for personality and structural variables, WFF was not related to family satisfaction and was negatively (rather than positively) related to family effort; thus, Hypothesis 13 was not supported. Although not predicted, WFF positively predicted job satisfaction and job effort. Family—work facilitation was positively related to job

^{***} p < .01.
*** p < .001.

effort but not job satisfaction so that Hypothesis 12 was partially supported. Although not predicted, FWF was also significantly positively related to family satisfaction and family effort.

4. Discussion

Using a large, nationally representative sample, we examined the predictive power of the Big Five personality traits to conflict and facilitation between work and family roles. Additionally, we examined the consequences of conflict and facilitation on work and family outcomes: namely, job effort, job satisfaction, family satisfaction, and family effort. Overall, the findings suggest that, in order to obtain a more complete view of the relationships between work and family, researchers should continue to study facilitation, as well as conflict, and personality variables, as well as structural ones.

4.1. The role of personality in the experience of conflict and facilitation

After controlling for various situational factors, personality traits exerted significant prediction of the degree of conflict and facilitation experienced. Thus, employees' levels of conflict and facilitation are not only a function of work and family circumstances, but also reflect individuals' contributions. Interestingly, the personality traits relevant to conflict are somewhat distinct from those relevant to facilitation. Neuroticism was related to both directions of conflict but generally not related to facilitation, and extraversion was related to both directions of facilitation but not to either direction of conflict. This differential pattern of results adds evidence to the interpretation of neuroticism as primarily related to negative stimuli (conflict), and extraversion as related to positive stimuli (facilitation) (David et al., 1997).

Along with neuroticism, conscientiousness was the only other personality trait related to both directions of conflict such that persons higher in conscientiousness experienced less WFC and FWC. Despite the fact that conscientious individuals are likely to work hard to achieve their goals in both domains which could increase the opportunity for conflict, their being efficient and organized (McCrae & Costa, 1991) may enable them to accomplish their roles with less interrole conflict. It may be that, because conscientious individuals are able to successfully complete tasks in less time, they are less preoccupied with work while at home (and vice versa). Thus, conscientiousness may result in greater boundary separation of work and family. No other personality traits besides conscientiousness and neuroticism were related to FWC. In addition to these two traits, agreeableness was negatively related to WFC. The altruistic and cooperative characteristics of agreeable individuals may reduce the frequency of interpersonal tension at work which may reduce the extent to which work interferes with family.

As for facilitation, conscientiousness and agreeableness were positively related to FWF but unrelated to WFF. The reverse was true of openness to experience which was positively related to WFF but unrelated to FWF. The fact that each of these

traits was related to one direction of facilitation but not the other may reflect a difference in the nature of facilitation originating within each domain. Family, for example, may be more likely to positively influence work by the support and appreciation received and the transfer of positive mood (which are relevant to conscientiousness and agreeableness) than by the transfer of behaviors. Work, on the other hand, is perhaps more likely to influence family by the transference of skills and behaviors (which are relevant to openness) than the support or appreciation received.

Our results were informative about the nature of the constructs of conflict and facilitation because they demonstrate that conflict is not merely the opposite of facilitation. Interestingly, the two traits related to conflict, conscientiousness and neuroticism, were less or not at all influential to the experience of facilitation. And extraversion was the personality dimension central to both directions of facilitation. Furthermore, the intercorrelations among the conflict and facilitation scales were not high, and several of the structural variables were related to conflict and facilitation in the same direction. As an example, employees who worked more hours experienced greater conflict but also experienced greater facilitation. Thus, as personality psychologists have established for emotion (Watson & Clark, 1992) and for the personality traits of extraversion and neuroticism (Gross, Sutton, & Ketelaar, 1998), positive often is orthogonal to negative, such that it is possible to experience high levels of both simultaneously. This general independence between conflict and facilitation demonstrates that facilitation, rather than being only the lack of conflict, provides added and unique knowledge about the work–family interface.

4.2. Relationships of the big five, conflict, and facilitation to work and family outcomes

An important part of personality psychology is documenting the relationships between personality traits and life quality (e.g., Diener & Lucas, 1999; Staudinger, Fleeson, & Baltes, 1999). In our study, neuroticism was the only trait significantly related to job satisfaction such that individuals higher in neuroticism were less satisfied with their jobs. Perhaps structural variables play a more prominent role in job satisfaction than do personality variables. The finding that conscientiousness predicted job effort is in line with prior research documenting the importance of conscientiousness to job performance (Barrick & Mount, 1991). Agreeableness positively and neuroticism negatively predicted family satisfaction. Openness to experience was not related to any of the work–family outcome variables.

Of interest in the present study was the relationship of conflict and facilitation to work–family outcomes. The most frequent prediction in previous research has been that both directions of conflict are negatively related to work *and* family outcomes. Another prediction, offered by Frone et al. (1997), is that each direction of conflict (e.g., FWC and WFC) is related to outcomes in the domain receiving the conflict (e.g., work and family, respectively). We relied on Frone et al.'s model to make domain-specific predictions for conflict and facilitation. The pattern of results in our study did not lend support to either of the previously proposed hypotheses.

Instead, the general pattern of results revealed that conflict was associated with affective outcomes in the originating role and with behavioral outcomes in the

receiving role. For example, FWC was negatively related to family satisfaction and job effort. Theoretically, then, this finding indicates that when one role interferes with the other, it may result in poor role quality or performance in the role being interfered with. In addition, perhaps individuals psychologically attribute blame for the interference to the source role, and as such, experience negative affect toward that role. The generation of negative affect toward the source role is consistent with Kossek and Ozeki's (1998) meta-analysis which found WFC to be more strongly associated with job satisfaction than was FWC.

As one might expect given the orthogonality of conflict and facilitation, the pattern for facilitation was somewhat different. Facilitation was associated with affective and behavioral outcomes in the originating role. For example, WFF was positively related to job satisfaction and job effort. To a slight extent, facilitation was related to behavioral performance in the receiving role. However, for WFF, it was opposite to what we had predicted in that greater WFF was related to putting less effort into one's family role. Because WFF included the beneficial transfer of skills and behaviors from one's work to one's family, perhaps this positive transfer of skills made it easier to accomplish one's family role without putting forth as much effort. In sum, it may be that when individuals make attributions about the benefits of one role to the other, this primarily results in more positive affect and behavioral investment in the role seen as providing benefit. Clearly, further theoretical development is greatly needed to understand the processes by which conflict and facilitation relate to outcomes in the work and family domains.

Given the cross-sectional nature of our data, another plausible explanation for the pattern of results may be that role effort and satisfaction are predictors of rather than (or in addition to) consequences of conflict and facilitation. In other words, greater job satisfaction may lead to greater WFF and less WFC rather than the reverse. Longitudinal research is critically needed in future work–family research to determine the causal direction of relationships between conflict and facilitation and affective and behavioral outcomes.

Kirchmeyer (1992a) warned that "researchers who set out to investigate only the negative outcomes are likely to find them, rather than the positive ones" (p. 232). Our findings support her assertion and illustrate the importance of studying work–family facilitation. First, both directions of facilitation were related to job effort whereas the most frequently studied work–family variable, WFC, was not. Second, job satisfaction was higher when work was viewed as facilitating the family role and lower when work was viewed as conflicting with the family role. This suggests that individuals' satisfaction with their jobs is closely tied to both the degree of conflict and facilitation that their jobs bring to their families. Thus, it is important not only for organizations to develop means to reduce conflict but also to enhance facilitation.

4.3. Limitations and future research

Although the present study provided a large and nationally representative sample which increases the generalizability of these findings, there are at least four limita-

tions. First, there are very few established measures of facilitation, and the measure used in the present study would benefit from additional validation efforts (though the factor and reliability analyses provide initial evidence of reliability and validity). Also, the differential and predicted relationships of our conflict and facilitation scales to traits and to outcomes makes their validity difficult to doubt. Because facilitation is an important aspect of the work–family interface, serious attention should be devoted to scale development and construct validation efforts. The mechanisms of facilitation reviewed here may provide a building block for such work.

A second limitation was the use of self-report data which increases the possibility of common method variance; however, two things make this less likely: (i) the survey was broad with this study's measures interspersed with an array of unrelated topics across two written questionnaire booklets and a phone interview and (ii) the differential relationships among personality, conflict, facilitation and outcomes suggests that there does not seem to be a widespread spurious inflation. A third potential limitation is that, because the data were collected cross-sectionally, we cannot be sure of the causal direction of the relationships. As previously stated, longitudinal research is necessary to validate the causal direction of the observed relationships. A final limitation is that two of our four outcome measures (i.e., job satisfaction and job effort) were measured using a single item due to the multi-purpose nature of the MIDUS survey. Preferably, and if time had permitted, multiple-item measures would have been used. However, the fact that we found relationships consistent with prior research (e.g., Kossek & Ozeki, 1998) and with our predictions despite using singleitem measures makes the findings more compelling. Despite these limitations, some of which are inherent to the methodology employed (i.e., large-scale, cross-sectional survey), a particular strength of this study is that these data were collected on a nationally representative sample large enough to provide ample power to test the hypothesized relationships.

As research on work–family continues, it would be useful to broaden our view of the interrelationships between work and family to include facilitation. The present work represents an important step in this direction in that we demonstrate, as others have (e.g., Grzywacz, 2000; Kirchmeyer, 1992a, 1992b, 1993), that facilitation exists, and also that it is related to important work–family outcomes. Several avenues of additional research would be especially fruitful. First, as Greenhaus and Beutell (1985) provided an important theoretical review of work–family conflict that stimulated much research, similar theoretical development is needed for facilitation. Following such a review, attention can be directed at scale development as has been done recently for work–family conflict (Carlson et al., 2000).

Another important avenue that could then follow would be to examine antecedents and consequences of facilitation. In particular, research is needed to understand how individual (e.g., work–family identity), work (e.g., supervisor support, family friendly programs), and family (e.g., spousal support) factors relate to facilitation. Only by empirically examining its antecedents can situations be altered or programs designed to increase facilitation. Similarly, research should focus on the relationship between facilitation and other work outcomes including organizational citizenship behaviors, organizational commitment, and withdrawal behaviors.

To more fully understand the role of personality in producing conflict and facilitation, future research could investigate the process by which each of the Big Five traits influences each of the forms of conflict (time, strain, and behavior, Greenhaus & Beutell, 1985) and facilitation (e.g., mood, support received, enhanced self-esteem, and time use). For example, research could empirically examine each of the mechanisms discussed in our study including whether (a) extraversion influences facilitation via its influence on the transfer of positive affect and/or greater energy, (b) conscientiousness influences facilitation via its influence on enhanced self-esteem, appreciation, and/or positive mood, and (c) agreeableness influences facilitation via its influence on support received. Besides the mechanisms already proposed, Kossek et al. (1999) suggested that personality might influence one's choice of a work–family management strategy. Such possibilities need to be explored to uncover the mechanism(s) by which personality influences conflict and facilitation.

Finally, future research should also consider whether personality might moderate the stress-conflict/facilitation relationship. As the person–situation interaction perspective suggests, depending upon one's personality, one person may interpret fulfilling multiple roles as "highly stressful" and perceive it negatively, whereas another person may interpret it as "happily busy" and perceive it positively (Epstein, 1987). Thus, the relationship between situational stressors and outcomes may be moderated by one's personality. Due to the in-depth investigation needed to consider personality traits as both moderators and mediators, comprehensive understanding might best be gained by investigating one personality trait at a time. Stoeva et al. (2002) provided such an investigation of the role of negative affectivity in WFC. Similar work is needed on each of the Big Five traits and conflict and facilitation.

4.4. Conclusions and implications for organizational practice

Organizations have recognized the economic costs of WFC and have developed efforts to reduce it (e.g., flexible work options). Discovering the role of personality and the benefits of work and family roles does not reduce the responsibility of organizations or public policy in helping employees balance their work and family lives. It must be emphasized that personality traits serve primarily to either enhance or mitigate existing conditions. Also, looking at the benefits of facilitation suggests more, rather than fewer, opportunities for organizations to increase worker satisfaction and effort. Therefore, organizational interventions and structural changes are still very important. Because conflict and facilitation are orthogonal constructs, programs that have been used to reduce conflict may not effectively increase facilitation. Moreover, because some factors are related to conflict and facilitation in the same direction (e.g., number of hours worked), some techniques designed to reduce conflict may serve to also reduce facilitation. Thus, relying only on what we know about conflict to make practical recommendations is insufficient.

Additionally, knowledge of individual differences may help to maximize the effectiveness of organizational programs. For example, Employee Assistance Programs

(EAPs) could be developed to help neurotic individuals understand their propensity to view experiences negatively and to coach them how to view WFC as less threatening. Also, because conscientious behaviors such as organization and thoroughness may be useful for reducing WFC as well as enhancing job performance, training programs could teach these behaviors. Finally, after antecedents to facilitation are identified, structural factors can be altered and programs developed to enhance facilitation.

In sum, this study advances knowledge about the work–family interface by providing three new insights. First, employees do report experiencing facilitation between their work and family roles which suggests that work and family roles influence one another positively rather than only negatively. Second, although it is known that conflict between work and family is related to structural factors, these findings indicate that conflict and facilitation are also related to general personality traits, and by different ones. That is, neuroticism and conscientiousness are the primary traits related to conflict, and extraversion is the trait primarily related to facilitation. Third, whereas conflict has generally negative relationships to work–family outcomes, facilitation has positive relationships. This finding highlights the need to focus on the positive consequences of multiple role occupation and to study how such positive consequences can be attained. Importantly, these findings are likely to generalize across employees in the US given this nationally representative sample. Again, by considering both conflict and facilitation in organizational research, we may better capture a more complete picture of the work–family interface.

Appendix A

- 1. Your job reduces the effort you can give to activities at home.
- 2. Stress at work makes you irritable at home.
- 3. Your job makes you feel too tired to do the things that need attention at home.
- 4. Job worries or problems distract you when you are at home.
- 5. The things you do at work help you deal with personal and practical issues at home.
- 6. The things you do at work make you a more interesting person at home.
- 7. Having a good day on your job makes you a better companion when you get home.
- 8. The skills you use on your job are useful for things you have to do at home.
- 9. Responsibilities at home reduce the effort you can devote to your job.
- 10. Personal or family worries and problems distract you when you are at work.
- 11. Activities and chores at home prevent you from getting the amount of sleep you need to do your job well.
- 12. Stress at home makes you irritable at work.
- 13. Talking with someone at home helps you deal with problems at work.
- 14. Providing for what is needed at home makes you work harder at your job.
- 15. The love and respect you get at home makes you feel confident about yourself at work.

16. Your home life helps you relax and feel ready for the next day's work.

Note. Items 1–4 measure work–family conflict; Items 5–8 measure work–family facilitation; Items 9–12 measure family–work conflict; and Items 13–16 measure family–work facilitation.

References

- Aryee, S. (1992). Antecedents and outcomes of work–family conflict among married professional women: Evidence from Singapore. *Human Relations*, 45, 813–837.
- Babbie, E. (1990). Survey research methods (2nd ed.). Belmont, CA: Wadsworth.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1–26.
- Bedeian, A. G., Burke, B. G., & Moffett, R. G. (1988). Outcomes of work–family conflict among married male and female professionals. *Journal of Management*, 14, 475–491.
- Briggs, S. R. (1992). Assessing the Five-Factor Model of personality description. *Journal of Personality*, 60, 253–293.
- Brim, O. G., Ryff, C. D., & Kessler, R. C. (in press). The MIDUS National Survey: An overview. In O. G. Brim, C. D. Ryff, & R.C. Kessler (Eds.), A portrait of midlife in the US.
- Burke, R. J. (1988). Some antecedents and consequences of work–family conflict. *Journal of Social Behavior and Personality*, *3*, 287–302.
- Burke, R., Weir, T., & DuWors, R. E. (1980). Work demands on administrators and spouse well-being. *Human Relations*, 33, 253–278.
- Carlson, D. (1999). Personality and role variables as predictors of three forms of work–family conflict. *Journal of Vocational Behavior*, 55, 236–253.
- Carlson, D., & Kacmar, M. (2000). Work–family conflict in the organization: Do life role values make a difference? *Journal of Management*, 26, 1031–1054.
- Carlson, D., Kacmar, J., & Williams, L. (2000). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational Behavior*, 56, 249–276.
- Cooke, R. A., & Rousseau, D. M. (1984). Stress and strain from family roles and work-role expectations. *Journal of Applied Psychology*, 69, 252–260.
- Costa, P. T., & McCrae, R. R. (1985). *The NEO_PI/FFI manual supplement*. Odessa, FL: Psychological Assessment Resources.
- Crouter, A. C. (1984). Spillover from family to work: The neglected side of the work–family interface. *Human Relations*, *37*, 425–442.
- DeRaad, B. D. (1998). Five big, big five issues: Rationale, content, structure, status, and crosscultural assessment. *European Psychologist*, *3*, 113–124.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), Well-being: The foundations of hedonic psychology (pp. 213–229). New York: Russell Sage.
- Epstein, C. F. (1987). Multiple demands and multiple roles: The conditions of successful management. In F. J. Crosby (Ed.), *Spouse, parent, worker: On gender and multiple roles* (pp. 23–35). New Haven, CT: Yale University Press.
- Fleeson, W. (2001). Towards a structure- and process-integrated view of personality: Traits as density distributions of states. *Journal of Personality and Social Psychology*, 80, 1011–1027.
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work–family conflict: Testing a model of the work–family interface. *Journal of Applied Psychology*, 77, 65–78.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior*, 50, 145–167.
- Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five factor structure. *Journal of Personality and Social Psychology*, 59, 1216–1229.

- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. Psychological Assessment, 4, 26–42.
- Greenglass, E., Pantony, K., & Burke, R. (1988). A gender-role perspective on role conflict, work stress, and social support. *Journal of Social Behavior and Personality*, 3, 317–328.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. Academy of Management Review, 10, 76–88.
- Greenhaus, J. H., & Parasuraman, S. (1999). Research on work, family, and gender: Current status and future directions. In G. Powell (Ed.), *Handbook of gender and work* (pp. 391–412). Thousand Oaks, CA: Sage.
- Gross, J. J., Sutton, S. K., & Ketelaar, T. (1998). Relations between affect and personality: Support for the affect-level and affective-reactivity views. *Personality and Social Psychology Bulletin*, 24, 279–288.
- Grzywacz, J. G. (2000). Work–family spillover and health during midlife: Is managing conflict everything? American Journal of Health Promotion, 14, 236–243.
- Grzywacz, J. G., & Marks, N. F. (2000a). Reconceptualizing the work–family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5, 111–126.
- Grzywacz, J. G., & Marks, N. F. (2000b). Family, work, work-family spillover and problem drinking during midlife. *Journal of Marriage and the Family*, 62, 336-348.
- Gutek, B., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work–family conflict. *Journal of Applied Psychology*, 76, 560–568.
- Judge, T. A., & Higgins, C. A. (1999). The Big Five personality traits, general mental ability, and career success across the lifespan. *Personal Psychology*, 52, 621–653.
- Kinnunen, U., & Mauno, S. (1998). Antecedents and outcomes of work–family conflict among employed men and women in Finland. *Human Relations*, 51, 157–177.
- Kirchmeyer, C. (1992a). Nonwork-to-work spillover: A more balanced view of the experiences and coping of professional men and women. Sex Roles, 28,531–552.
- Kirchmeyer, C. (1992b). Nonwork participation and work attitudes: A test of scarcity vs. expansion models of personal resources. *Human Relations*, 45, 775–795.
- Kirchmeyer, C. (1993). Managing the work–nonwork boundary: An assessment of organizational responses. *Human Relations*, 48, 515–536.
- Kopelman, R., Greenhaus, J., & Connolly, T. (1983). A model of work, family, and interrole conflict: A construct validation study. Organizational Behavior and Human Performance, 32, 198–215.
- Kossek, E. E., & Ozeki, C. (1998). Work–family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior–human resources research. *Journal of Applied Psychology*, 83, 139–149.
- Lachman, M. E., & Bertrand, R. M. (2001). Personality and self in midlife. In M. E. Lachman (Ed.), Handbook of midlife development (pp. 279–309). New York: Wiley.
- Lachman, M. E., & Weaver, S. L. (1997). The midlife development inventory (MIDI) personality scales: Scale construction and scoring (Technical Report). Brandeis University, Waltham, MA.
- Lyness, K. S., & Thompson, D. E. (1997). Above the glass ceiling? A comparison of matched samples of female and male executives. *Journal of Applied Psychology*, 82, 359–375.
- MacEwen, K. E., & Barling, J. (1994). Daily consequences of work interference with family and family interference with work. Work and Stress, 8, 244–254.
- Maraist, C. (1999, May). Will the "true" predictors of work-family conflict please stand up? Poster presented at the 14th annual conference of the society for industrial and organizational psychology, Atlanta, GA.
- Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review, 42*, 921–936.
- McCrae, R. R., & Costa, P. T. (1990). Personality in adulthood. New York, NY, USA: The Guilford Press. McCrae, R. R., & Costa, P. T., Jr. (1991). Adding Liebe und Arbeit: The full five-factor model and wellbeing. Personality and Social Psychology Bulletin, 17, 227–232.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60, 175–215.
- Matthews, G., & Deary, I. J. (1998). Personality traits. Cambridge, UK: Cambridge University Press.

- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflicts and work–family conflict scales. *Journal of Applied Psychology*, 81, 400–410.
- Rusting, C. L., & Larsen, R. J. (1998). Personality and cognitive processing of affective information. Personality and Social Psychology Bulletin, 24, 200–213.
- Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review, 39*, 567–578.
- Staudinger, U. M., Fleeson, W., & Baltes, P. B. (1999). Predictors of subjective physical health and global well-being: Similarities and differences between the United States and Germany. *Journal of Personality* and Social Psychology, 76, 305–319.
- Stephens, M. A., Franks, M. W., & Atienza, A. A. (1997). Where two roles intersect: Spillover between parent care and employment. *Psychology and Aging*, 12, 30–37.
- Stoeva, A. Z., Chiu, R. K., & Greenhaus, J. H. (2002). Negative affectivity, role stress, and work–family conflict. *Journal of Vocational Behavior*, 60(1), 1–16.
- Sumer, H. C., & Knight, P. A. (2001). How do people with different attachment styles balance work and family? A personality perspective on the work–family linkage. *Journal of Applied Psychology*, 86, 653–663.
- Trapnell, P. D., & Wiggins, J. S. (1990). Extension of the Interpersonal Adjective Scales to include the Big Five dimensions of personality. *Journal of Personality and Social Psychology*, 59, 781–790.
- Watson, D., & Clark, L. A. (1992). On traits and temperament: General and specific factors of emotional experience and their relation to the five-factor model. *Journal of Personality*, 60, 441–476.
- Zellars, K., & Perrewe, P. (2001). Affective personality and the content of emotional social support: Coping in organizations. *Journal of Applied Psychology*, 86, 459–467.