

## CHAPTER 26

# The Work–Family Role Interface: A Synthesis of the Research from Industrial and Organizational Psychology

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Several decades have passed since the intersection of work and family roles has become recognized as an important area of study within industrial and organizational (I-O) psychology. Perhaps initially considered a “fringe” area of research outside of mainstream I-O (as evidence note that the first edition of this Handbook did not include a work–family chapter), work–family scholarship has flourished over the past several decades.

Concerted interest in work and family issues within I-O psychology can be traced to Zedeck’s 1987 Society for Industrial and Organizational Psychology (SIOP) presidential address, in which he called for I-O psychologists to study the relationship between work and family roles. The publication of the edited volume entitled, *Work, Family, and Organizations* soon followed (Zedeck, 1992). Today, sessions concerning work–family frequently appear on the program of the annual *Society for Industrial and Organizational Psychology* conference and a notable number of work–family articles are being published in top journals such as the *Journal of Applied Psychology* and *Personnel Psychology*. Beyond I-O psychology, the field of work–family research has ripened to the point that a separate membership society for work and family researchers, *The Work–Family Researchers Network*, comprised of individuals from multiple disciplines, is in the process of being formed with an initial conference planned for June 2012.

Indeed, it appears that work-and-family research has come of age.

### Chapter Overview

As a maturing area of research there have been numerous broad reviews of the literature in recent years (e.g., Allen, 2012; Chang, McDonald, & Burton, 2010; Greenhaus & Allen, 2010; Hammer & Zimmerman, 2011; Kossek, Baltes, & Matthews, 2011). The intent of the current chapter is review research with regard to the intersection of work and family roles, but with a greater emphasis on new or expanding areas of inquiry. The chapter unfolds as follows. I begin by describing literature that has investigated positive and negative interdependences between work and family roles, followed by a review of the work–family balance literature. I then review individual differences associated with work–family. This is followed by a review of organizational and national supports for work–family. Next work–family issues are reviewed from a cross-national perspective. The chapter closes with proposed directions for future research.

Before turning to the review, a few comments regarding terms are needed. Astute readers may note the use of the term *work–family* as opposed to *work–life* or *work–nonwork*. These terms are often used interchangeably in the literature. In the current chapter, I rely on

the term *work–family* as an umbrella term intended to include all research involving the juxtaposition of multiple life roles. Some have criticized the “work–family” frame as too narrow in that it neglects other life roles important to individuals, thus constraining research and theory. Although such debates are important dialogue for the field, they are outside of the scope of this chapter. The interested reader is referred to Moen (2011) for an excellent discussion of the issues.

## WORK AND FAMILY INTERDEPENDENCIES

### Overview

While *work–family* has become part of the common lexicon, it is typically framed as a struggle. Simultaneous engagement in work and family roles is characterized as a phenomenon fraught with conflict. Indeed, work–family conflict is arguably the most common topic of study within the work–family literature. Research consistently demonstrates that the management of work and family roles can be a challenge. However, combining work and family roles also provides benefits and opportunities for enrichment. The following sections provide a brief review of literature focused on both the positive and the negative aspects of combining work and family roles.

### Negative Work–Family Linkage

Conflict between work and family roles has been a major topic of study within the work–family literature. The scarcity hypothesis serves as a theoretical basis for work–family role conflict (Goode, 1960). The *scarcity hypothesis* suggests that individuals have a finite amount of time, energy, and attention. The more roles an individual occupies, the more likely it is that those limited resources will become depleted. Kahn, Wolfe, Quinn, Snoek, and Rosenthal’s (1964) work with regard to organizational stress has also been an influential theoretical underpinning for work–family conflict research. Kahn et al. coined the term *interrole conflict* to describe when pressures in one role become incompatible with the pressures from another role. Greenhaus and Beutell (1985) extended Kahn et al.’s (1964) definition of interrole conflict to develop the definition of work–family conflict most commonly used by work–family scholars. Specifically, work–family conflict is defined as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some

respect” (p. 77). Work–family conflict is the mechanism that links constructs within one domain such as job stressors with constructs in other domains such as family strain (Frone, Russell, & Cooper, 1992).

Although early research often conceptualized work–family conflict globally (e.g. “My work and family interfere with each other”) (e.g., Quinn & Staines, 1979), current research recognizes the directionality of the conflict. Family interference with work (FIW) is a distinct construct from work interference with family (WIF), with each direction demonstrating unique antecedents and consequences (e.g., Aryee, Fields, & Luk, 1999; Carlson, 1999). As noted by Greenhaus and Powell (2003), the directionality of a conflict between work and family only becomes apparent after the individual makes a decision regarding the resolution of competing simultaneous pressures emanating from work and family roles. The family role appears to be more permeable than the work role in that mean levels of WIF tend to be higher than those of FIW (Bellavia & Frone, 2005).

In addition to direction of the conflict, three different types of conflict are recognized in the literature: time-based conflict, strain-based conflict, and behavior-based conflict (Carlson, Kacmar, & Williams, 2000; Greenhaus & Beutell, 1985). Time-based conflict occurs when time spent on tasks associated with one role inhibits the completion of responsibilities in another role. Strain-based conflict arises when pressures from one role make it difficult to fulfill the requirements in another role. Finally, behavior-based conflict occurs when behaviors necessary for one role are incompatible with behavior patterns necessary in the other role.

### Predictors

Several meta-analyses have cogently summarized the research regarding predictors of work–family conflict in recent years (Byron, 2005; Ford, Heinen, & Langkamer, 2007; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). Because individual differences (exclusive of demographics) and organizational practices are reviewed in separate sections as growing areas of research emphasis, this section focuses on a summary of research relating demographic and situational variables to work–family conflict. Due to the large number of existing available reviews, the current review is brief.

Several demographic variables have been studied frequently as predictors of work–family conflict. Sex in particular has been extensively investigated (Korabik, McElwain, & Chappell, 2008; Powell & Greenhaus, 2010). Although common wisdom is that because women

tend to have greater family demands while men tend to have greater work demands, women experience greater FIW than do men and men experience greater WIF than do women, meta-analytic research finds very small effects associated with these relationships (Byron, 2005). Specifically, Byron reported meta-analytic effect sizes of  $-0.03$  between sex and WIF and  $0.06$  between sex and FIW such that men tend to report slightly more WIF while women tend to report slightly more FIW.

The effects associated with parental status and work–family conflict are more robust than those regarding sex. Number of children at home consistently relates to reports of greater WIF and FIW (e.g., Bruck & Allen; Byron, 2005; Carlson, 1999). There is also some evidence that parental status and sex interact. Parenthood appears to increase both directions of interference to a greater degree for women than for men. Specifically, in her meta-analysis, Byron found that when samples were comprised of more parents the gender difference in the experience of WIF and FIW widened such that women reported significantly more WIF and FIW than did fathers.

Marital status is another variable that demonstrates little main effect but appears to be moderated by parental status (Byron, 2005). Married and single employees without children report similar levels of WIF and FIW, but single parents report more WIF and FIW than do married parents (Byron, 2005). Marital type (single- versus dual-earner) has also been meta-analytically examined. Members of a dual-earner couple are expected to experience more work–family conflict than are members of a single-earner couple (e.g., Higgins & Duxbury, 1992), but research shows few differences.

Situational variables commonly studied as predictors of work–family conflict include role stressors and role involvement. Role predictors are domain specific in that the predictors of WIF tend to reside primarily in the work domain (e.g., work demands) while the predictors of FIW tend to reside primarily in the family domain (e.g., family demands). Role stressors include variables such as role conflict, role ambiguity, role demands, and role overload. Work role stressors consistently relate to WIF while family role stressors consistently relate to FIW (Byron, 2005; Michel, Kotrba et al., 2011). Role involvement can be assessed both subjectively (e.g., job involvement) and objectively (e.g., hours spent working). The effect sizes associated with role involvement tend to be smaller than those of role stressors (Byron, 2005; Michel, Kotrba et al., 2011). In addition, the magnitude of the observed relationships tends to be stronger with regard

to work role involvement and WIF than with regard to family role involvement and FIW.

### Outcomes

A wide variety of outcomes have been associated with work–family conflict. Multiple informative quantitative and qualitative reviews of this literature exist (Allen, Herst, Bruck, & Sutton, 2000; Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Greenhaus, Allen, & Spector, 2006; Kossek & Ozeki, 1998). Research consistently shows that both directions of work–family conflict relate to job satisfaction, life satisfaction, marital satisfaction, burnout, and both physical and psychological strains.

Domain specificity is generally less supported with regard to outcomes of work–family conflict. Early models of the work–family interface posed outcomes specific to the receiving domain of the conflict (e.g., Frone, Russell, & Cooper, 1992; Frone et al., 1997). For example, in these models job satisfaction is linked directly to FIW while family satisfaction is linked directly to WIF. Two recent meta-analyses have investigated the domain specificity of outcomes. Amstad et al. reported that WIF was more strongly associated with work-related than family-related outcomes and that FIW was more strongly associated with family-related outcomes than work-related outcomes. Another study looking solely at job and family satisfaction within a meta-analytic path model framework came to a similar conclusion (Shockley & Singla, 2011). This pattern is thought to occur because blame for the conflict is attributed to the domain that was the originating source of the conflict (Grandey, Cordeiro, & Crouter, 2005; Lapierre, Spector, Allen, Poelmans et al., 2008; Shockley & Singla, 2011).

Given the robust relationships linking work–family conflict with health outcomes, one growing area of interest is the relationship between multiple role engagement and health behavior. One of the earliest health behaviors to be linked with work–family conflict was alcohol use. Frone and colleagues consistently have found that work–family conflict is associated with alcohol problems (e.g., Frone et al., 1997; Grzywacz & Bass, 2003). Wang, Liu, Zhan, and Shi (2010) recently extended this line of research. Based on a daily experience sampling study, they found that WIF, but not FIW, had a significant within-subject main effect on daily alcohol use. Recent research has investigated the link between work–family conflict and health behaviors associated with diet and exercise (e.g., Allen & Armstrong, 2006; Devine, Stoddard, Barbeau, Naishadham, & Sorensen, 2007; Roos, Sarlio-Lahteenkorva, Lallukka, & Lahelma, 2007). For

example, greater FIW has been associated with eating more high-fat foods and less physical activity (Allen & Armstrong, 2006). Allen and Armstrong also reported that WIF was associated with eating fewer healthy foods. Researchers attribute diet and exercise findings to perceptions of time scarcity. Food choices are used as a way to help cope with competing time demands between work and family (Devine, Jastran, Jabs, Wethington, Farell, & Bisogni, 2006). Only 13% of parents report activities such as eating right and exercising as a strategy used to *help* meet the demands and expectations of work and home (Pitt-Catsouphes, Matz-Costa, & MacDermid, 2007). Research has also linked WIF with obesity (Grzywacz, 2000) and with weight gain (Lallukka, Laaksonen, Martikainen, Sarlio-Lahteenkorva, & Lahelma, 2005). Finally, a growing body of research has linked work–family conflict with sleep quality (e.g., Lallukka, Rahkonen, Lahelma, & Arber, 2010; Nylen, Melin, & Laflamme, 2007).

### Positive Work–Family Linkage

In contrast to the emphasis on conflicts between work and family roles, there is a growing body of research investigating the positive interdependencies that exist as a result of combining work and family roles. This view is consistent with current movements such as positive psychology (e.g., Seligman, Steen, Park, & Peterson, 2005) and positive organizational scholarship (e.g., Luthans, 2002). The theoretical basis for positive work–family relationships is based on expansion theory (Marks, 1977; Sieber, 1974). Expansion theory suggests that multiple roles result in greater access to resources. This perspective suggests that individuals' supply of energy is expandable and that multiple roles can increase psychological well-being (e.g., Barnett & Baruch, 1985; Thoits, 1983).

Multiple concepts have been developed to represent positive linkages between work and family roles. These include positive spillover (e.g., Crouter, 1984; Hanson, Hammer, & Colton, 2006), work–family facilitation (Grzywacz & Bass, 2003; Wayne, Musisca, & Fleeson, 2004), and work–family enrichment (Carlson, Kacmar, Wayne, & Grzywacz, 2006; Greenhaus & Powell, 2006). The distinction between the various constructs is not consistently clear, but each reflects the perspective that combining multiple roles can result in beneficial outcomes for the individual. Similar to the bidirectionality of work–family conflict, it is recognized that work can benefit family as well as that family can benefit work.

*Positive spillover* is defined as the transfer of generative mood, skills, behaviors, and values from work to family or from family to work (Edwards & Rothbard, 2000; Hanson et al., 2006). Hanson et al. developed a measure of positive spillover that captures three types of work-to-family positive spillover: affective, behavior-based instrumental, and values-based. *Facilitation* refers to the extent that engagement in one life domain provides gains that contribute to enhanced functions in another life domain (Wayne, Grzywacz, Carlson, & Kacmar, 2007). It has also been suggested that the term *facilitation* be used to signify theory and research that pertains to system-level issues within the work–family interface (Grzywacz, Carlson, Kacmar, & Wayne, 2007). Finally, *enrichment* is defined as the extent that experiences in one role improve the quality of life (performance and positive affect) in the other role through the transfer of resources from one role to the other (Greenhaus & Powell, 2006). Greenhaus and Powell identify five types of resources that can be role generated, including skills and perspectives, psychological and physical resources, social-capital resources, flexibility, and material resources.

Carlson et al. (2006) developed a measure of enrichment. Work-to-family enrichment was composed of three dimensions: developmental, affect, and capital. Family-to-work enrichment was comprised of three dimensions, development, affect, and efficiency.

As noted previously, the distinction between these constructs is not completely clear. Wayne (2009) developed a conceptual framework intended to explain the differences among the three. She suggested that *positive spillover* occurs when an individual transfers the gains from one domain to a second domain. For example, the skills learned at work are transferred and applied at home. In order for *enrichment* to occur, the individual must successfully apply the gains to the other domain. That is, for enrichment to occur, the individual would not only have to transfer the skills learned from one domain to another (positive spillover), but would also have to experience improved performance or quality of life as a result. Facilitation occurs when the skills learned from the workplace result in improvement in function at the level of the family unit. This framework suggests a type of temporal ordering such that enrichment follows from spillover and that facilitation follows from enrichment.

Recent research has attempted to investigate the distinction between the constructs based on a simultaneous comparison of Carlson et al.'s (2006) work–family enrichment measure to Hanson et al.'s (2006) work–family positive spillover measure. Consistent with the framework

developed by Wayne (2009), Masuda, Nicklin, McNall, and Allen (2012) found that work–family enrichment mediated the relationship between work–family positive spillover and job satisfaction while work–family positive spillover did not mediate the relationship between work–family enrichment and job satisfaction. The authors also found that multiple items cross-loaded across the two measures, suggesting further development of these measures is needed.

In the following sections, predictors and outcomes of positive synergies between work and family are reviewed. For the purpose of simplicity, the term *enhancement* is used as a generic way to denote research on the positive benefits of multiple role engagement. WFE is used to denote enhancement that flows from work to family and FWE is used to denote enhancement that flows from family to work.

### **Predictors**

A growing, but still limited set of predictors has been associated with work–family enhancement to date. The most consistent finding has been an association between gender and enhancement such that women tend to report higher levels of enhancement than do men (e.g., Aryee, Srinivas, & Tan, 2005; Powell & Greenhaus, 2010; van Steenbergen, Ellemers, & Mooijaart, 2007).

In their model of the work–family enrichment process, Greenhaus and Powell (2006) suggested that the predictors of enrichment would be resources that are acquired from the originating domain. Similar to the domain specificity findings with regard to predictors of work–family conflict, such specificity has generally been supported in the enhancement literature. Specifically, family variables such as psychological involvement in the family and marital role commitment have been found to predict FWE (e.g., Allis & O’Driscoll, 2008; Graves, Ohlott, & Ruderman, 2007) while work-related variables such as job involvement and characteristics of the job have been associated with WFE (Aryee et al., 2005; Grzywacz & Butler, 2005).

### **Outcomes**

The outcomes associated with enhancement tend to be similar to those associated with work–family conflict, but with opposite effects. The research regarding enhancement and outcomes was recently summarized in a meta-analytic study (McNall, Nicklin, & Masuda, 2010). McNall et al. reported that both WFE and FWE were positively associated with job satisfaction, organizational commitment, family satisfaction, physical health, and mental health.

In addition, life satisfaction was associated with WFE. Turnover intent was not associated with either direction of enhancement. The authors also reported moderator effects. Specifically, the relationship between WFE and job satisfaction, as well as between FWE and job satisfaction, was stronger in samples that consisted of a majority of women. Sex similarly moderated the WFE–family satisfaction relationship.

With regard to domain specificity effects, existing research shows that WFE tends to be more strongly linked to work outcomes than is FWE while FWE relates more strongly to family related outcomes than does WFE (e.g., McNall et al., 2010; Shockley & Singla, 2011; Wayne et al., 2004). Thus, similar to the findings with regard to work–family conflict, reactions to enhancement are primarily associated with the role from which the enhancement originates.

### **Summary**

Over the past several decades the study of work–family conflict has been a dominant force within the work–family literature. Recently, a great deal of attention has also been given to the positive aspects of multiple role engagement. In concert, findings suggest that role stressors are the strongest predictors of work–family conflict. The strongest predictors of role enhancement have yet to emerge. As will be discussed below, dispositional variables are likely a common predictor to both. Generally speaking, positive outcomes accrue to those that experience work–family enhancement while negative outcomes accrue to those who report work–family conflict.

### **WORK–FAMILY BALANCE**

Work–family balance is emerging as a distinct topic of study within the work–family literature. Although the term has been equated with low conflict between work and family roles (e.g., Hill, Hawkins, Ferris, & Weitzman, 2001) or as the combination of low conflict and high work–family facilitation (e.g., Frone, 2003), researchers have begun to recognize work–family balance as a unique construct (Grzywacz & Carlson, 2007; Greenhaus & Allen, 2010). In contrast to constructs such as work–family conflict and work–family enrichment, work–family balance is not a linking mechanism between work and family because it does not specify how conditions or experiences in one role are causally related to conditions or experiences in the other role (Greenhaus,

Collins, & Shaw, 2003). Rather, it reflects an overall interrole assessment of compatibility between work and family roles. Several studies provide psychometric evidence to support the distinction between the three constructs (Allen, Greenhaus, & Edwards, 2010; Carlson, Grzywacz, & Zivnuska, 2009). However, among those who recognize balance as distinct from work–family conflict and work–family enrichment, conceptual definitions differ.

Grzywacz and Carlson (2007) contend that balance should be viewed as a social construct. More specifically, they define balance as “accomplishment of role-related expectations that are negotiated and shared between an individual and his or her role-related partners in the work and family domains.” Greenhaus and Allen (2010) define work–family balance as “the extent to which an individual’s effectiveness and satisfaction in work and family roles are compatible with the individual’s life role priorities at a given point in time.” Life role priority refers to the relative priority, focus, or emphasis placed on different life roles (Friedman & Greenhaus, 2000).

Within research that recognizes balance as a construct unique from work–family conflict and work–family enhancement, it has been operationalized in a variety of ways that include single items of perceived success at balancing work and family, satisfaction with balance, role accomplishment as perceived by others, and agreement that work and family roles are balanced (e.g., Allen et al., 2010; Carlson et al., 2009; Valcour, 2007).

### ***Predictors and Outcomes***

Given that a focus on balance as a unique construct independent from work–family conflict and work–family enrichment is relatively new, a limited amount of research exists regarding predictors and outcomes. Greenhaus and Allen (2010) theorize that both work–family conflict and work–family enrichment serve as predictors of work–family balance. Although the causal ordering of variables is not clear, several studies have demonstrated that balance can be factor-analytically distinguished from work–family conflict (Allen et al., 2010; Carlson et al., 2009) as well as from work–family enrichment (Carlson et al., 2009). Time spent in various activities is one predictor with longer work hours associated with less perceived balance and more time spent engaged in quality time with children positively associated with perceived balance (Milkie, Kendig, Nomaguchi, & Denny, 2010; Valcour, 2007). Recent research has also associated trait mindfulness with work–family balance (Allen & Kiburz, 2012). Outcomes associated with work–family balance

include job satisfaction, organizational commitment, family satisfaction, family functioning, and life satisfaction (Allen et al., 2010; Carlson et al., 2009).

## **INDIVIDUAL DIFFERENCES AND WORK–FAMILY**

The role of individual differences in the work–family interface has become of increasing interest within the work–family literature. Developed areas of research as well as emerging topics of inquiry are discussed.

### **Dispositional Variables**

Dispositional variables have been associated with both work–family conflict and work–family enhancement (e.g., Bruck & Allen, 2003; Grzywacz & Butler, 2005; Wayne et al., 2004). This area of research has matured to the extent that two recent meta-analyses have appeared. Michel, Clark, and Jaramillo (2011) investigated the Big Five personality variables, negative work–family spillover (i.e., work–family conflict), and positive work–family spillover (i.e., work–family enhancement). Based on a meta-analytic structural equation model, extraversion, agreeableness, conscientiousness, and neuroticism were each significantly associated with negative work–nonwork spillover, with neuroticism demonstrating the strongest effect. Extraversion, agreeableness, conscientiousness, and openness to experience were each related to positive work–nonwork spillover, with extraversion demonstrating the strongest relationship.

Allen, Johnson, Saboe, Cho, Dumani, and Evans (2012) conducted a comprehensive meta-analysis of dispositional variables associated with WIF and FIW. The authors conclude that in general, negative trait-based variables (e.g., negative affect, neuroticism) appear to make individuals more vulnerable to both directions of work–family conflict, while positive trait-based variables (e.g., positive affect, self-efficacy) appear to protect individuals from work–family conflict. The largest effects reported were those associated with negative affect, neuroticism, and self-efficacy. These studies are an important contribution to the work–family literature in that the effect sizes associated with dispositional variables rival those associated with work–family stressors, and exceed those associated with work–family practice initiatives such as flextime.

### **Values**

The role of individual life role values is an expanding area of research interest within the work–family literature. Life

role values pertain to what the individual believes to be important to, central to, or a priority in his or her life. Values are key to the choices individuals make with regard to work, family, and other pursuits (Perrewe & Hochwarter, 2001). Carlson and Kacmar (2000) found that sources, levels, and outcomes of work–family conflict differed depending on individual life role values. For example, when the family role was highly valued, work domain predictors were more highly associated with work–family conflict and satisfaction. A considerable number of studies have investigated values at the role domain level, such as family role salience (see Powell & Greenhaus, 2010, for a review); however, emerging research investigates values at a more fine-grained level.

Based on Schwartz's values theory (e.g., Schwartz, Melech, Lehmann, Burgess, & Harris, 2001), Cohen (2009) examined the link between 10 individual values and work–family conflict. Findings indicated a positive relationship between valuing power and both FIW and WIF. In addition, individuals who valued benevolence were more likely to report WIF while those who valued hedonism were less likely to report WIF. Notably, values that represent conservation (security, tradition, conformity) were not related to either direction of work–family conflict. Promislo, Deckop, Giacalone, and Jurkiewicz (2010) recently investigated the link between materialism, defined as placing a high value on income and material possessions (Diener & Seligman, 2004), and work–family conflict. Results after including a number of control variables indicated that more materialistic individuals also reported more FIW. Future research targeting issues of value similarity between family members and value congruence between the individual and the organization would be welcome extensions to this literature (Perrewe & Hochwarter, 2001).

### Integration/Segmentation

One individual difference variable unique to the work–family literature is preferences for integration versus segmentation of work and family roles. Based on boundary theory, it is suggested that these preferences are developed by individuals in an attempt to manage work and family roles (Ashforth, Kreiner, & Fugate, 2000). Segmentation and integration are thought to reside at opposite ends of the same continuum (Kreiner, 2006). Individuals who fall more on the segmentation end prefer to keep work and family separate while those who fall more on the integration end prefer to remove boundaries and merge work and family roles. Effective boundary management is thought

to be important in that it facilitates performance in both the work and the family role (Ashforth et al., 2000; Edwards & Rothbard, 1999).

Investigations of the relationship between segmentation/integration preferences and work–family conflict have primarily yielded null results. To date, no significant relationship between segmentation/integration preferences and WIF has been detected (Kossek, Lautsch, & Eaton, 2006; Kreiner, 2006; Powell & Greenhaus, 2010; Shockley & Allen, 2010). Relationships with FIW have been nonsignificant (Shockley & Allen, 2010), or significant but small in magnitude, suggesting segmentation preferences associated with greater FIW (Kossek et al., 2006). Several studies suggest that *actual* segmentation of work and family roles is associated with less WIF (Olson-Buchanan & Boswell, 2006; Powell & Greenhaus, 2010). Powell and Greenhaus (2010) also found that actual segmentation was associated with less affective positive work-to-family spillover. Thus, the results thus far appear to suggest that preferences for segmentation/integration have little relationship to work–family conflict. However, actual segmentation of work and family roles may be beneficial in terms of preventing work–family conflict, but also inhibit positive spillover between roles.

Several studies have investigated the relationship between segmentation/integration preferences and use of flexible work arrangements. Kossek et al. (2006) found that integration preferences were associated with less telecommuting. In contrast, Shockley and Allen (2010) reported that integration preferences were associated with greater use of flextime and flexplace (also called *telecommuting*).

It seems likely that segmentation/integration may play a moderating role with regard to work–family relationships. For example, segmentation/integration may moderate the extent that work role stressors cross over to FIW and that family role stressors cross over to WIF such that those who tend to blur work and family role boundaries demonstrate stronger crossover relationships. This would be consistent with Rothbard, Philips, and Dumas (2005), who found that segmentation/integration preferences moderated relationships between the availability of workplace family supportive practices and job attitudes. This is in line with the notion that policies such as flexplace or telecommuting do not work equally well for everyone. For example, in a qualitative study, McDonald, Bradley, and Brown (2008) found that some individuals reported that they were too easily distracted to work from home while others reported that they were more productive when not physically present in the office.

## Summary

Situational factors and to some extent demographic factors have been the primary predictors of interest within the work–family literature over the past several decades. The emerging focus on individual differences is an important complement to existing research. The strongest predictors appear to be variables associated with negative affect. However, much remains to be studied in terms of how dispositional variables might interact with each other as well as with situational variables to more fully explain work–family role experiences. In addition, further investigations of individual differences specific to work–family, such as integration/segmentation, are needed.

## ENVIRONMENTAL SUPPORT FOR MANAGING WORK AND FAMILY

In this section, the literature regarding both organizational and legislative support for managing work and family is reviewed. The prevalence of various policies is noted as well as the research that supports their effectiveness.

### Organizational Policies and Practices

Organizational policies and practices can be characterized as those that are formal or as those that are informal. Among the most commonly discussed formal practices are those involving dependent care and flexibility. Informal practices include supervisor support and organizational support. Each are reviewed below.

#### *Dependent Care*

There are a large number of policies that fall under the rubric of dependent care that range from referrals for elder care services to paid leave to care for sick family members. One source for information regarding the prevalence of these practices is the Society for Human Resource Management (SHRM), which conducts an annual study of the benefits offered by organizations. Their most recent report indicated that the most common dependent care–related benefit offered by companies was a dependent-care flexible spending account (72%) (SHRM, 2010). Additional data indicate that 24% of employers provide paid family leave, 19% provide paid leave above required federal FMLA leave, 17% provide parental leave above federal FMLA, and 16% provide paid adoption leave. Other dependent benefits include the ability to bring a child to work in an emergency (30%), on-site lactation/mother’s

room (28%), child care referral service (17%), and elder care referral service (11%). Of the 23 family-friendly benefits assessed in the SHRM report, three decreased from 2006 to 2010 (elder care referral service, adoption assistance, and foster care assistance) and one increased (bring child to work in emergency). No changes in any of the offerings were detected between 2009 and 2010.

Research with regard to the impact of dependent care policies on employee outcomes is limited. Results can be divided into those that focus on use and those that focus on availability. With regard to use, the findings are mixed. Goff, Mount, and Jamison (1990) found no relationship between child care center use and employee absenteeism on work–family conflict. Kossek and Nichol (1992) reported that parents who used an employer-sponsored onsite child care center reported fewer child care problems and more positive work–family attitudes than did those who were on the waiting list; however, no relationship was detected with performance or employee absenteeism. Hammer, Neal, Newsom, Brockwood, and Colton (2005) reported that the use of dependent care supports (a variety of supports that included child and elder care) was *positively* associated with WIF for dual-career women.

With regard to availability, Grover and Crooker (1995) found that availability of child care was associated with attachment to the organization. Rothbard et al. (2005) report no relationship between perceived access to onsite child care and job satisfaction. However, this relationship was moderated by preferences for segmentation versus integration of work–family roles such that access to onsite child care was positively related to job satisfaction among those who preferred to integrate work and family roles and negatively related to job satisfaction among those who preferred to segment roles. A significant, but small-in-magnitude relationship was observed between perceived access to onsite child care and organizational commitment such that access was associated with less commitment. However, this relationship, too, was moderated by preferences for segmentation versus integration such that access to onsite child care was more negatively related to organizational commitment among those who preferred to keep life roles segmented than among those who preferred integration.

Mesmer-Magnus and Viswesvaran (2006) reported a meta-analytic effect size of  $-0.14$  for WFC and  $-0.04$  for WIF with dependent care availability and satisfaction. However, these effect sizes should be interpreted with caution because their research did not distinguish between child care arrangements provided by an employer versus



those provided by another source (e.g., homecare). This is an important distinction in that some individuals may prefer non-employer-related child care arrangements, particularly those who prefer to segment work and family roles.

### **Flexibility**

A great deal of attention has focused on flexibility practices within organizations as a way to help individuals manage work and family responsibilities. Flexible work arrangements (FWA) are generally defined as work options that permit flexibility in terms of “where” work is completed (often referred to as *telecommuting* or *flexplace*) and/or “when” work is completed (often referred to as *flextime* or *scheduling flexibility*) (Rau & Hyland, 2002). Such practices have become widespread within organizations (SHRM, 2010). The great deal of attention focused on FWA has been fueled by the popular press (e.g., Greenhouse, 2011) and by policy advocates such as the *National Partnership for Women and Families* and *Corporate Voices for Working Families*. Moreover, in 2010 the White House held a forum on workplace flexibility ([www.whitehouse.gov/blog/2010/04/01/a-conversation-workplace-flexibility](http://www.whitehouse.gov/blog/2010/04/01/a-conversation-workplace-flexibility)) and the Women’s Bureau of the U.S. Department of Labor is engaged in a *National Dialogue on Workplace Flexibility* ([www.dol.gov/wb/media/natldialogue2.htm](http://www.dol.gov/wb/media/natldialogue2.htm)).

The 2010 SHRM study reporting the percentage of employers offering various forms of flexibility indicated that the most commonly offered forms of flexibility were flextime (49%), telecommuting on an ad-hoc basis (44%), compressed work week (34%), and part-time telecommuting (34%). Less commonly offered were shift flexibility (19%), telecommuting on a full-time basis (17%), job sharing (13%), alternating location arrangements (4%), and results-only work environment (described below; 1%) (SHRM, 2010). The report also indicated no significant differences in flexible work benefits offered by employers between those surveyed in 2009 and in 2010. Some significant differences between 2006 and 2010 were reported. Specifically, there was a decline in the offering of flextime and an increase in the availability of telecommuting on a part-time basis. Thirteen other flexible work practices assessed showed no change. An additional source of information regarding the prevalence of flexibility practices is the *Work and Family Institute*. In their 2008 study it was reported that 79% of the organizations surveyed offered some degree of time flexibility, and 31% offered flextime on a daily basis (Galinsky, Bond, Sakai, Kim, & Giuntoli, 2008).

There is also evidence that employers intend to increase their flexibility offerings. In a 2010 survey of over 2,700 human resource professionals, 35% indicated that they planned to provide more flexible work arrangements to employees, compared to 31% surveyed in the previous year (CareerBuilder, 2010). In addition, a *Work and Family Institute* report found that most employers were either maintaining the flexible arrangements that they offer or planned to increase them (Galinsky & Bond, 2009).

Flexible work practices have been associated with a variety of beneficial work outcomes. Baltes, Briggs, Huff, Wright, and Neuman (1999) found that flexible workplace interventions were related to productivity, job satisfaction, work schedule satisfaction, and absenteeism in expected directions. Similarly, Gajendran and Harrison (2007) reported small but significant effects associated with telecommuting on work–family conflict, job satisfaction, performance, turnover intent, and role stress. One of the most progressive examples of flexibility is the “results-only work environment” (ROWE) at Best Buy (Conlon, 2006). At the Best Buy corporate office, employees are free to work where and whenever they want as long as the work gets done. In a study that compared employee turnover pre-ROWE and post-ROWE, Moen et al. (2011) reported that those in ROWE were less likely to leave the organization.

A great degree of practice and research attention has been focused on flexible work arrangements because they are thought to serve as a resource that enables individuals to better manage competing work and family demands. Although flexibility appears to have positive effects on job attitudes and behaviors, the evidence is far from unequivocal with regard to its relationship with work–family conflict (Allen & Shockley, 2009). Lapiere and Allen (2006) reported that telework users reported *more* time-based FIW than did non-users. No significant relationships were found between telework use and strain-based FIW, time-based WIF, or strain-based WIF. Based on both qualitative and quantitative data, Hill, Miller, Weiner, and Colihan (1998) examined those in a naturally occurring telecommuting situation (i.e., there was no self-selection) and those who worked in a traditional office space. With regard to work–life balance, participants wrote a total of 27 favorable (e.g., “Mobility enables me to better fulfill household/child care responsibilities”) and 46 unfavorable (e.g., “In the mobile environment I feel like I am always working”) qualitative comments. The quantitative analysis indicated that mobility was not significantly related to work–life balance. As these findings suggest, being able to work from home may enable negative work and

nonwork spillover rather than avert it. Along these lines, there is some evidence to suggest that the availability of flexibility in terms of scheduling is more effective for minimizing work–family conflict than is the availability of flexibility in terms of location (Shockley & Allen, 2007).

Given the cross-sectional design of most research relating flexibility and work–family conflict, one explanation for the aforementioned findings is that work–family conflict may motivate the use of flexible work practices (e.g., Allen & Shockley, 2009; Kossek et al., 2011). Although it seems unlikely that work–family conflict would increase the likelihood that one would report that flexible work options are available, experiencing work–family conflict may influence one to use flextime and/or to telecommute. This is important to keep in mind when interpreting existing findings and a factor to consider in the design of future research.

### ***Supervisor Support***

Supervisors have been recognized as essential to enabling employees to manage work and family. Research consistently indicates that individuals who report that their supervisors are more family supportive report less work–family conflict (e.g., Allen, 2001; Frone et al., 1997; Lapierre & Allen, 2006; Thomas & Ganster, 1995; Thompson, Beauvais, & Lyness, 1999). Moreover, family-supportive supervision has been associated with positive job attitudes, lower intentions to leave the organization, and more positive spillover from family to work (e.g., Allen, 2001; Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). A similar line of research from a leadership perspective has documented that individuals who enjoy a high-quality leader–member exchange with their supervisors also report less work–family conflict (Bernas & Major, 2000; Golden, 2006; Major, Fletcher, Davis, & Germano, 2008).

Hammer and colleagues have recently conceptualized family-supportive supervision along four dimensions: emotional support, instrumental support, role modeling behaviors, and creative work–family management (Hammer et al., 2009). Emotional support involves making employees feel comfortable discussing work–family issues and conveying empathy. Instrumental support involves effectively responding to employee work and family needs and requests. Role modeling behaviors refer to the supervisor’s ability to demonstrate effective strategies for effective work–family management. Creative work–family management is defined as manager-initiated behaviors intended to restructure work in a way that facilitates employee effectiveness on and off the job. Each

of these four dimensions was associated with less WIF and more positive family–work spillover. In addition, role modeling was associated with positive work–family spillover.

Given the benefits associated with family-supportive supervision, it is not surprising that researchers would turn their attention to ways to increase such support. The effectiveness of an intervention designed to train supervisors to be more family-supportive was recently tested, with somewhat mixed results (Hammer, Kossek, Anger, Bodner, & Zimmerman, 2011). For example, while the training was successful at improving work and health outcomes for employees with higher levels of FIW, the intervention had detrimental effects for employees with lower levels of FIW. The inclusion of additional intervention studies is a critical need within the work–family literature.

### ***Informal Organizational Support***

Informal aspects of the workplace environment also play a role in the work–family interface. An assortment of constructs with similar content have been developed that capture an overall assessment of the family-supportiveness of the organization. They include work–family culture (Thompson et al., 1999), family-supportive organizational perceptions (FSOP) (Allen, 2001), face-time orientation (Shockley & Allen, 2010), and work–family climate (Kossek, Colquitt, & Noe, 2001; O’Neill, Harrison, Cleveland, Almeida, Stawski, & Crouter, 2009). What these constructs have in common is the recognition that norms and expectations within the organization influence the extent that employees feel comfortable using policies such as flextime, can talk openly with regard to work–family concerns, and feel compelled to place work ahead of family. Perceiving that the organization is more family-supportive relates to a variety of positive outcomes that include less work–family conflict, greater job satisfaction, less intention to quit, and greater employee well-being (e.g., Allen, 2001). Moreover, the effect sizes associated with informal support tend to be considerably stronger than those associated with specific organizational practices such as schedule flexibility (Anderson, Coffey, & Byerly, 2002; Michel et al., 2011).

### ***Legislative Policy***

Policies at the national level that are supportive of employee needs to manage work and family responsibilities have increasingly become a topic of discourse within the work–family literature. It is widely recognized that legislative policies or government-level supports for work

and family vary enormously across the world (Heymann, Earle, & Hayes, 2007; Waldfogel, 2001). Countries differ in terms of the extent that paid leave for childbirth and adoption is provided, paid leave for sickness is available, child care is readily available and affordable, and that early education programs exist (Heymann et al., 2007; Human Rights Watch, 2011).

Legislative policy at the national level within the United States with regard to paid work–family supports is limited. The United States has no federal guaranteed paid leave for mothers for childbirth or adoption. In contrast, Heymann et al. (2007) reported that 169 of the 173 countries they studied offered guaranteed leave with income to women in connection with childbirth and 98 of those countries offer 14 or more weeks of paid leave. *Unpaid* leave is mandated within the United States. The Family and Medical Leave Act (FMLA), signed in 1993, guarantees eligible employees 12 weeks of unpaid job-protected leave during any 12-month period for an employee’s serious medical condition, childbirth, adoption, foster care placement, or to care for a spouse, parent, or child. Employees are eligible if they have worked at least 1,250 hours during the preceding year. However, employers who have fewer than 50 employees within a 75-mile radius of all worksites are exempt.

States are beginning to implement their own paid family leave law. California was the first to do so in 2002 (Milkman & Appelbaum, 2004). In California, workers who participate in the State Disability Insurance Program are eligible for up to 6 weeks of partial pay each year for bonding with a newborn/adopted child or to care for an ill family member. In 2009, a similar law went into effect in New Jersey. Washington approved a law intended to provide up to 5 weeks of paid family leave associated with the birth or adoption of a child in 2007. However, due to a state budget deficit, implementation has been postponed until 2012 (Washington, Family Leave Coalition, n.d.).

Other forms of family-related entitlements strikingly differ across countries. In the United States, parents rely on tax credits to help with child care expenses, whereas child care assistance in Europe is often provided through publicly funded programs (Waldfogel, 2001). Unlike other industrialized countries, the United States has no federally mandated paid sick leave or vacation leave. Paid sick leave and vacation are left at the discretion of the employer. In recent years, there have been growing efforts by policy advocates to implement a mandated paid sick leave policy. For example, the *Healthy Families Act*, introduced into Congress, would require employers who employ 15 or

more employees for each working day 20 or more work-weeks a year to provide employees up to 7 paid sick days per year (Heymann, 2007).

The common assumption is that these policies are important for managing work and family conflict. Williams (2010) asserts, “Failures of public policy are a key reason that Americans face such acute work–family conflict” (p. 8). However, this assumption has been subjected to little empirical scrutiny. In fact, several studies appear to suggest that national policy has little impact on the day-to-day working lives of employees. For example, Strandh and Nordenmark (2006) investigated work–family conflict in five countries (Sweden, the Netherlands, the United Kingdom, Hungary, and the Czech Republic) that differed in terms of the extensiveness that governmental supports exist. They hypothesized that individuals living in countries with more generous country-level social supports (i.e., Sweden) would experience less work–family conflict than would individuals living in countries with less generous social supports (i.e., the United Kingdom). However, the results contradicted their hypothesis in that women in Sweden reported more conflicts between work and household demands than did any other category across all five countries. Similarly, a recent qualitative study revealed that women in the United Kingdom and the Netherlands reported that national policy had not impacted their lives in any tangible way (Yerkes, Standing, Wattis, & Wain, 2010).

## Summary

There is still much to be understood with regard to the types of supports that are most beneficial to individuals struggling with the challenge of balancing work and family. To date, the existing research suggests that informal supports at the local level may be most effective. Most research investigating family supportive organizational perceptions/culture has investigated it as a predictor variable. Research aimed at identifying the factors that feed into perceptions of family supportiveness as well as objectively identified forms of family-supportive cultures is needed.

## CROSS-NATIONAL WORK AND FAMILY RESEARCH

Work–family scholarship has flourished not only in the United States, but also in other countries across the globe (Allen, Shockley, & Biga, 2010; Poelmans, 2005). Despite

the widespread interest in work and family globally, cross-national comparative studies remain relatively rare. Two points of comparison are of interest. One is the prevalence of work–family conflict. The second is generalizability of relationships involving the work–family interface cross-nationally. The literature regarding each of these is reviewed below.

### **Cross-National Prevalence of Work–Family Conflict**

Gauging the prevalence of work–family conflict across countries is difficult in that no representative sampling studies have been conducted. Moreover, we have no way to ensure that work–family conflict has the same conceptual meaning in the United States as it does in countries outside of the United States. Despite these limitations, a handful of studies do exist that begin to provide some insight into comparative levels. Spector, Allen, Poelmans, Cooper et al. (2005) investigated pressures emanating from work that spilled over into the family among a sample of managers from 18 countries. They found that individuals from Taiwan, Hong Kong, and Portugal reported the greatest work–family pressure while individuals from the United States, the United Kingdom, and Australia reported the least. As previously described, Strandh and Nordenmark (2006) investigated work–family conflict in five countries grouped under different social contexts. Individuals residing in Sweden reported the greatest degree of work–family conflict, followed by those in the Netherlands, the UK, Czech Republic, and lastly Hungary. In a three-country comparison study, Mortazavi, Pedhiwala, Shafiro, and Hammer (2009) found no mean differences in WIF or FIW across the United States, Ukraine, and Iran. Yang (2005) found that WIF was greater in China than in the United States, but no significant mean difference in FIW was detected. In both of the two aforementioned studies it is notable that, similar to research based primarily in the United States, participants in all country samples reported more WIF than FIW.

Research has also been conducted investigating work–family conflict across country clusters. Spector et al. (2007) grouped 5,270 managers from 20 countries into four clusters: Anglo, Asian, East-European, and Latin American. Both time- and strain-based WIF were investigated. The means associated with the Anglo and the Asian clusters significantly differed such that individuals in the Anglo cluster reported the highest time-based WIF. In addition, the strain-based Asian cluster mean was significantly lower than that of any of the other three clusters.

Another way to compare prevalence is based on country clusters created according to cultural values. Cultural values have been defined as “shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives that are transmitted over generations” (House & Javidan, 2004, p. 15).

Based on data from over 20,000 managers across 50 countries employed by a large multinational firm, Allen et al. (2010) investigated mean differences in work–life effectiveness (i.e., the absence of WIF) based on groupings of countries clustered into high, medium, and low bands with regard to the cultural values of gender egalitarianism, collectivism, humane orientation, and performance orientation. Interesting differences emerged. Individuals in medium gender egalitarian (GE) societies reported the greatest work–life effectiveness, followed by those in high GE societies. The lowest work–life effectiveness was in low GE societies. Work–life effectiveness also followed a nonlinear trend with regard to humane orientation. The greatest work–life effectiveness was reported among managers in the medium-high humane orientation cluster. A linear trend was found with collectivism such that greater work–life effectiveness was associated with lower collectivistic values. Stronger performance orientation was associated with greater work–life effectiveness.

Based on the literature accumulated thus far, conclusions regarding differences in prevalence rates across countries and cultures are difficult to draw. Adding to the complexity is that there is a great degree of variation in the sampling strategies used in the studies to date, making meaningful comparisons risky. However, it does seem safe to tentatively conclude that contrary to what has been suggested by some scholars (e.g., Williams, 2010), individuals in the United States do not necessarily report the highest degree of work–family conflict across the globe.

### **Generalizability of Work–Family Relationships**

The majority of early work and family research was conducted within the United States and other Western countries (Poelmans, 2005). In recent years, a growing number of studies have examined the generalizability of findings conducted within a Western context to other contexts. Much of this research has been based on identifying unique relationships theorized to be due to cultural differences in collectivism (e.g., Spector et al., 2004, 2007; Yang, 2005; Yang, Chen, Choi, & Zou, 2000). The

general finding is that relations between work–family conflict and predictors and between work–family conflict and outcomes are weaker in more collectivistic than in less collectivistic societies. These findings are attributed to the notion that in more collectivistic societies work is viewed as something done for the family while in less collectivistic societies work is viewed as something done for the self.

Other research has found that work–family relationships are invariant across multiple country contexts. Hill, Yang, Hawkins, and Ferris (2004) demonstrated that a model that linked work demands to WIF held universally across four country clusters based on 48 countries. Likewise, Mortazavi et al. (2009) reported that work demands were associated with WIF across three countries. Based on data from five individualistic countries, Lapierre et al. (2008) tested a model that linked family-supportive organizational perceptions to both directions of work–family conflict, which was in turn linked to job satisfaction and family satisfaction. The model was generalizable across all five countries. Lallukka et al. (2010) investigated relationships between a bidirectional assessment of work–family conflict and health behaviors across samples of British, Finnish, and Japanese employees. Similar relationships were found across the three cohorts.

Several studies have investigated issues associated with workplace flexibility and culture. Raghuram, London, and Larsen (2001) examined the amount of variance accounted for in telework use by culture versus country. The authors concluded that differences in use were explained by country differences rather than by culture differences. Masuda et al. (2012) investigated the relationship between the availability of an assortment of flexible work arrangements and WIF across Latin American, Anglo, and Asian country clusters. Significant differences in relationships were found. Specifically, flextime was the only form of flexibility that had significant favorable relationships with the outcome variables among managers in the Anglo cluster. With regard to managers in the Latin American cluster, part-time work negatively related with turnover intention and strain-based WIF. For Asians, flextime was unrelated with time-based WIF, and telecommuting was positively associated with strain-based WIF. Finally, Allen et al. (2010) found variability in the relationships between flexibility and work–life effectiveness across cultures. Their overall pattern of results suggested that the availability of flextime could potentially help compensate for cultural contexts that may make the achievement of work–life effectiveness more difficult.

## Summary

A small, but growing body of cross-national work and family research has begun to accumulate in recent years. To date the focus has been on work–family conflict with findings suggesting that many of the same predictors and outcomes may generalize across various national contexts but that the strengths of these relationships differ. Much of this research has been geared toward comparing results found in non-Western contexts to those found in the West. The development of emic as well as etic approaches could yield a clearer understanding of how individuals from various cultural contexts experience combining work and family. Opportunities for future research also include investigating the positive aspects of combining work and family roles.

## FUTURE RESEARCH DIRECTIONS

As mentioned at the beginning of this chapter, work and family scholarship has grown tremendously in the past several decades. Although a substantial body of research has developed, many areas for further inquiry remain. Three high-priority directions are suggested in the following sections.

### Technology/Virtual Work

Advanced technology has changed the way work is done as well as where it can be done. Profound changes continue to occur with regard to the ways people work with virtual workspaces and the potential for constant connection to work. The “workplace” can no longer be solely linked with a discrete physical location (Kreiner, Hollensbe, & Sheep., 2009). These advancements have the potential to both help and harm individuals in terms of the effective management of work and family roles.

On one hand, the constant connection to both work and home can blur the boundary between work and non-work and therefore increase vulnerability to work–family conflict (Boswell & Olson-Buchanan, 2007). About half (49%) of employees report that the use of technological tools increases their stress and makes it difficult to separate work and nonwork responsibilities (Madden & Jones, 2008). Another by-product of the increased ability of employees to work from home appears to be an increase in the total number of hours worked (Fenner & Renn, 2010). On the other hand, the availability of communication technology can empower employees to

work where and when they believe they can be most effective. In addition, technology facilitates the ability to engage in cross-role communication. For example, parents can use smartphones to quickly check in on and send reminders to their children via text messages while at work (St. George, 2009).

Given both the advantages and pitfalls associated with technology, research is needed that further explores the ways in which the positive power of technology best can be harnessed. One possibility is providing individuals with time management skills. Fenner and Renn (2010) investigated the link between technology-assisted supplemental work (TASW) and WIF. They found a positive relationship between greater use of TASW and greater WIF; however, time management moderated the relationship. Specifically, the relationship between TASW and WIF was stronger when individuals had low goal setting and priority skills. This is consistent with research that has shown that a negative relationship between control at work and WIF is observed only among employees who use a high degree of planning behavior (Lapierre & Allen, in press). That is, planning behavior is important for being able to realize positive benefits from control. Thus, providing individuals with the ability to control when and where they work through technology may not have intended beneficial effects without being accompanied with appropriate time management skills.

Another skill that needs further investigation is the setting of appropriate boundaries with regard to technology use. Olson-Buchanan and Boswell (2006) found that employees who set fewer boundaries for the use of communication during nonwork time also reported greater WIF. Similarly, Boswell and Olson-Buchanan (2007) reported that the use of communication technologies after normal work hours related to WIF. Along these lines, Turkle (2011) describes how the teenagers she interviewed complain that their parents are immersed with their phones during dinner, sporting events, and when picking them up from school. Parents recognize the behavior, but rationalize it on the basis of feeling ever behind, trying to keep up with e-mail and other messages. Further research on the development of boundary-related policies and their impact is needed.

Finally, research is needed that investigates the overuse and extended use of communication technologies on both work and family-related outcomes. Turkle (2011) describes how technology permits us to do anything from anywhere with anyone, but also drains us as we try to do everything everywhere. She suggests that networked devices encourage a new notion of time because they permit the layering of more activities onto one another. For

example, because one can text while also doing something else, an illusion is created that texting does not take time but gives time. The abundance of communication technology can result in individuals becoming so busy communicating that little time is left for real work or for real relationships. She suggests that the long periods of time without distractions and interruptions needed to do productive work and to maintain quality relationships have waned. To better understand these issues, we need to tease apart voluntary and involuntary use of technology as well as voluntary and involuntary distractions.

### Connecting Work–Family Research with Neuroscience

The study of work and family is multidisciplinary in scope, with contributions from researchers across a variety of disciplines (Pitt-Catsoupes, Kossek, & Sweet, 2005). Although most work–family research has drawn primarily from social science perspectives, biological perspectives have also increased our understanding of work–family interactions. For example, work and family demands have been associated with elevated blood pressure (Brisson, Laflamme, & Moisan, 1999) and elevated norepinephrine (Lundberg & Frankenhaeuser, 1999). However, work–family research has yet to incorporate neuroscience.

In several recent articles, Becker and Cropanzano have proposed the development of *Organizational Neuroscience* (Becker & Cropanzano, 2010; Becker, Cropanzano, & Sanfey, 2011). They define organizational neuroscience as “a deliberate and judicious approach to spanning the divide between neuroscience and organizational science” (p. 1055; see also Becker & Cropanzano, 2010) and encourage organizational scholars to consider a neuroscientific perspective in their work. Such a perspective could be helpful toward the advancement of work–family research.

Neuroscience can provide insight into the processes involved in the regulation of multiple role demands (Allen, 2012). The function of the prefrontal cortex (PFC) is to regulate behavior, attention, and affect (Brennan & Arnsten, 2008). It plays a key role in the planning system, facilitating the successful formulation of goal-directed behavior (Becker & Cropanzano, 2010). The amygdala within the brain is involved in the assessment of threat-related stimuli and the processing of emotional reactions (Shin, Rauch, & Pitman, 2006). When a stressful event is encountered (e.g., a work–family dilemma), the amygdala induces catecholamine release in the

prefrontal cortex, which results in cognitive dysfunction. Inhibition of the PFC weakens the ability to multitask (Diamond, Campbell, Park, Halonen, & Zoladz, 2007). Extreme examples of such failures include caregivers who forget that a child is in the car. Neuroscientists attribute such events to a breakdown in the brain's memory circuit due to a combination of stress and emotion, often accompanied by a lack of sleep and a change in routine (Weingarten, 2009). Research that investigates the brain's response to stressors that involve work–family conflicts and demands may help produce recommendations for alleviating work–family-related strain.

One specific topic for research is mindfulness. Mindfulness has been defined as “intentionally paying attention to present-moment experience (physical sensations, perceptions, affective states, thoughts, and imagery) in a nonjudgmental way, thereby cultivating a stable and nonreactive awareness” (Carmody, Reed, Kristellar, & Merriam, 2008). Dispositional mindfulness has been negatively associated with psychological distress, rumination, and social anxiety while positively correlated with clarity of emotional states, mood repair, and relationship satisfaction (e.g., Carmody et al., 2008; Chambers, Lo, & Allen, 2008). Mindful regulation of behavior is energizing (Brown & Ryan, 2003), while self-controlled regulation of behavior is energy depleting (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998). Mindful regulation of behavior differs from self-controlled regulation of behavior in that the practice of mindfulness has been found to strengthen rather than inhibit working memory (Jha, Stanley, & Baime, 2010).

Indeed, the therapeutic effects of mindfulness have been attributed to changes in the brain. Specifically, verbally labeling affective stimuli activates the right ventrolateral PFC and reduces responses in the amygdala (Cresswell, Way, Eisenberger, & Lieberman, 2007). Thus, mindfulness is associated with enhancements in neural affect regulation pathways.

One study has found a relationship between dispositional mindfulness and work–family conflict such that more mindful individuals report less work–family conflict (Kiburz & Allen, 2011). Thus, the cultivation of mindfulness processes through training may be one tool that can help regulate affect and alleviate perceived work–family conflict.

One final topic in this area ripe for research is implicit processes. The distinction between implicit and explicit attitudes has been a recent topic of interest within I-O psychology (e.g., Johnson & Lord, 2010). Implicit processes as compared to explicit processes occur more

automatically, take place in the deep brain structures of the temporal lobe, and are less likely to be within the conscious awareness of the individual (Becker et al., 2011).

Research investigating implicit processes could elucidate issues related to gender, parenthood, and differential work–family outcomes. In a study of implicit and explicit processes, Park, Smith, and Correll (2010) reported that the concepts of mom and parent were more easily kept simultaneously in mind than were mom and professional. The opposite effect was found for dad. For the category female, the mom role was more readily activated than was the dad role for male. Men were more strongly associated with the professional work role while women were more strongly associated with the home role. Implicit assumptions were associated with recommendations for how to best deal with work–family conflict such that those with the strongest traditional implicit role associations were more likely to recommend solutions that had women putting family first and men putting work first. These findings may explain why the behavioral expectations with regard to men and women have been difficult to change. Because implicit and explicit attitudes develop from different parts of the brain, implicit attitudes take priority. They therefore can short-circuit subsequent beneficial cognitive processing (Becker et al., 2011). Additional research exploring the implicit attitudes held with regard to career, family, and gender could help further reveal biases associated with both men and women. For example, studies could be done investigating implicit associations within the context of the distribution of family labor, use of flexible work options, and care of dependent family members.

### Older Workers

Much attention has been given to the aging workforce (Hedge, Borman, & Lammlein, 2005). Despite the fact that engagement in work and family roles occurs throughout the life span, there has been relatively little focus on work and family issues among older workers. As noted by Allen and Shockley (2012), there are multiple reasons to consider older workers from a work–family perspective. The age of women with young children has increased as women have delayed the age of first childbirth and continue to bear children into the 40s in greater numbers. In addition, there are increasing numbers of grandparents as primary caregivers and employed workers with elder care responsibilities. Moreover, recent research indicates that 57% of individuals working and caring for elderly

parents report difficulty coping with both (Gautun & Hagen, 2010).

There are several topics in need of investigation. There have been few studies of work–family conflict or work–family enhancement at different ages. Although there is some evidence that work–family conflict declines with age (Gordon, Litchfield & Whelan-Berry, 2003), we need a richer understanding of how work–family issues may qualitatively differ at various points across the life span. Different issues may come into play at older ages that are not reflected in our standard work–family assessments. The demands associated with caring for grandchildren can be unique in that such arrangements are often prompted by a family crisis such as teen pregnancy, incarceration, and substance abuse (e.g., Wang & Marcotte, 2007). In addition, although mean levels of work–family conflict may decline, it may be that relationships with outcomes differ. That is, age may act as a moderator. For example, the relationship between work–family conflict and depression may be stronger for older workers caring for aging parents than for younger workers caring for children. Finally, assessment of positive interactions between work and family as individuals age are needed.

The application of a life course perspective to research on older workers would be ideal to address questions such as how decisions made in early life with regard to the balance between work and family impact decisions regarding work and family dilemmas later in life. For example, decisions made by women over the life course to favor the spouse’s career, take time off for childbearing, and reduce work effort in favor of dependent caregiving, can have later economic disadvantages for women such as reduced pensions (Allen & Shockley, 2012; Pavalko & Gong, 2005). The impact of these decisions on later quality of life and well-being have yet to be fully investigated.

A final topic to consider with regard to older workers is research at the family unit of analysis. The work–family literature is generally in need of research at levels other than the individual (Allen, 2012). Research investigating family and work networks based on social network analysis may be especially useful in understanding how lives are linked across the life span. Studies are needed to understand how these networks contribute to resilience in the face of declining health, coping with involuntary job loss, and the decision to retire (Fry & Keyes, 2010).

## CONCLUSIONS

The objective of this chapter has been to expose the reader to the major themes within the work–family literature

as well as to emerging topics of interest. Industrial and organizational psychologists have been responsible for generating many insights into the work–family interface over the past several decades. Continued advancements will require innovative research designs and boundary-spanning ideas that chart new paths. As families and organizations continue to change, I-O psychologists can continue to play an important role in producing research findings with the potential to benefit both individuals and organizations.

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