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Citation

Work-Family Conflict in Work Groups: Social Information Processing, Support, and Demographic Dissimilarity

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Abstract

We used social information processing theory to examine the effect of work–family conflict (WFC) at the work group level on individuals' experience of WFC. Consistent with hypotheses, results suggest that WFC at the work group level influences individual WFC over and above the shared work environment and job demands. It was also observed that work group support and demographic dissimilarity moderate this relationship. Moderator analyses suggest that work group social support buffers WFC for individuals but is also associated with a stronger effect of work group WFC on individuals' WFC. Moreover, the work group effect on individuals' WFC was shown to be stronger for individuals who were demographically dissimilar to the work group in terms of sex and number of dependents. The interpretations and implications of these findings are discussed.

Keywords: similarity, social information processing, social support, work groups, work–family conflict

Work–family conflict (WFC) is considered a type of interrole conflict in which work demands, time pressures, and strain from the work domain hinder the capacity to meet demands and responsibilities from the family domain (Greenhaus & Beutell, 1985; Netemeyer, Boles, & McMurrian, 1996). The increase in research attention focused on WFC and its consequences is not surprising, given the rising percentage of female workers in the labor force (U.S. Bureau of Labor Statistics, 2004), the prevalence of dual-career couples (Moen, 2003), and other work trends, such as increasing work hours (Jacobs & Gerson, 1998; Maume & Bellas, 2001). WFC is also receiving more attention in the popular press, with magazines such as TIME highlighting the pressures of WFC for both men (Orecklin, 2004) and women (Wallis, 2004). Citing these workplace and social trends, researchers have emphasized the growing importance of the area of WFC for both organizations and employees (Allen, Herst, Bruck, & Sutton, 2000; Lewis & Cooper, 1999; Westman & Piotrkowski, 1999). In particular, researchers have examined various antecedents of WFC, with the most common being family characteristics (e.g., marital status, number of children), background characteristics (e.g., demographics, personality), work attitudes (e.g., job satisfaction), work stress (e.g., work overload), and job attributes (e.g., schedule/hours; see Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005, for a review).

Despite this growing body of research on WFC, one area that has received little attention is the role of individuals' immediate work context—the work group—and its effects on individuals' WFC. A majority of organizations are structured with work groups (Cohen & Bailey, 1997), which constitute the immediate social environment for most individuals at work. Correspondingly, in a recent review of research methodology in the work–family literature, Casper, Eby, Bordeaux, Lockwood, and Lambert (2007) observed that "little is known about WF relations at dyadic, group or organizational levels" (p. 35) and "because research has relied mostly on individual level studies, we have little understanding of how WFC influences family or organization members [emphasis added]" (p. 35). Our study endeavors to address this gap in the literature regarding the work group influence on WFC by examining whether WFC at the work group level influences an individual's personal experience of WFC. Indeed, Casper et al. argued that this is theoretically pertinent because individuals' WFC can be affected by the perceptions of other work group members.

The ability of work groups to shape an individual's work perceptions, such as WFC, is rooted in social information processing (SIP) theory. According to SIP theory (Salancik & Pfeffer, 1978), individual perceptions, attitudes, and behaviors are shaped by information cues, such as values, work requirements, and expectations from the social environment, beyond the influence of individual dispositions and traits. SIP theory has also been used to explain other work-related outcomes, such as job satisfaction (Griffin, 1983; O'Reilly & Caldwell, 1985), procedural justice and distributive justice (Goldman, 2001), and antisocial behavior (Robinson & O'Leary-Kelly, 1998). Similarly, we propose that individuals' immediate work groups shape their behaviors and perceptions relevant to WFC through SIP.

This relationship between WFC at the group level and WFC at the individual level is likely to be influenced by factors that alter the social information and relevance of the information about WFC for any given individual. We investigate two of these factors: social support and demographic similarity. Social support, an important antecedent of WFC (Allen, 2001), may also function as a moderator of the relationship between WFC and well-being (Greenhaus & Beutell, 1985), making it likely to intensify the transmission of WFC among individuals. In

accordance, Eby et al. (2005) recommended investigating the supportive role of work groups in influencing individuals' WFC. Additionally, the relational demography literature has reported that individuals' behavior, attitudes, and perceptions (such as WFC) are related to similarities in demographic characteristics of all group members, and individuals are more likely to be influenced by others similar to them (Chatman, Polzer, Barsade, & Neale, 1998; Jackson et al., 1991). To that end, this study examined the moderating effects of social support and demographic dissimilarity with work group members on the relationship between work group WFC and individuals' WFC. Moreover, moderators have not been sufficiently studied in the work–family literature, especially within the framework of moderated regression (Casper et al., 2007).

In this study, we contribute to the literature by highlighting the role of the work group as a key antecedent of individuals' WFC. In doing so, we extend prior research by identifying the influence of a work-group-level construct in a body of research in which much of the focus has been on individual dispositions and characteristics (Bruck & Allen, 2003; Carlson, 1999; Wayne, Musisca, & Fleeson, 2004) or organizational and societal policy (Kelly, 2005). Furthermore, we consider the effects of social support and demographic dissimilarity attributes that shape experiences of individual WFC. Thus, we contribute to the literature by (a) proposing and testing a relationship between work group WFC and individual WFC and (b) identifying the moderating effects of work group support and work group demographic dissimilarity.

Group WFC

A majority of organizations utilize some form of group work (Cohen & Bailey, 1997; Lawler, Mohrman, & Ledford, 1995), which serves as an informational and social environment for individuals. A work group can be considered a formal, relatively permanent composition of individuals in an organization (Fry & Slocum, 1984). The ability of the work group to shape individuals' work-related perceptions, such as WFC, is in accordance with Moos's (1984) argument that individuals belong to a social system. Hence, the effects of certain phenomena, such as stress, need to be analyzed by considering this social system. In the context of WFC, there are two social systems that can primarily influence the individual: the family and the work group. Individuals within a work group are more likely to share perceptions of WFC because they share similar work-related experiences, but they are less likely to share perceptions of family-to-work conflict because their family-related experiences are likely to differ. Consequently, we focus our discussion on the work domain and consider only WFC and not family-to-work conflict in this study.

There was limited theoretical guidance in prior work in formulating WFC as a group-level construct. By definition, WFC is neither an attitude nor an emotion but rather is a perception. As with any perception, WFC can be influenced by both individual characteristics (e.g., personality attributes, having preschool children, etc.) and information or stimuli from the environment (Pfeffer, 1983; Salancik & Pfeffer, 1978). Thus, as per SIP, environmental information can be further divided into (a) information that is directly obtained by the individual, such as family-friendly organizational policies or personal experiences with supervisory attitudes toward work–family problems, and (b) information that is indirectly collected by the individual from other group members or the overall organizational culture.

Two key questions concerning a group-level construct of WFC should be raised: First, does a construct of WFC exist at the group level? Second, how should such a construct be operationalized? We begin with the first question by introducing SIP as a theoretical mechanism that suggests a group-level construct of WFC. We then review literature on group-level constructs to address the second issue of operationalization.

SIP of WFC in Work Groups

It has been well established that social information affects individual perceptions, attitudes, and behaviors. Research conducted over half a century ago showed that the group shapes an individual's perceptions, priming the individual to form a perception of reality that is congruent with that of the group (Asch, 1951). Research has also demonstrated the effects of social influence on judgments when physical reality could not be used as a referent (Festinger, 1954). These ideas are reflected in SIP theory.

The underlying premise of SIP theory is that "individuals, as adaptive organisms, adapt attitudes, behavior, and beliefs to their social context and to the reality of their own past and present behavior and situation" (Salancik & Pfeffer, 1978, p. 226). The key theoretical contribution of the SIP framework is the connection it draws between the social environment and information processing in developing job attitudes, behaviors, and perceptions (Zalesny & Ford, 1990). Consequently, Salancik and Pfeffer (1978) proposed that individual behavior should be understood after examining the informational and social environment within which the behavior occurs and develops. Salancik and Pfeffer (1978) and Pfeffer (1983) also outlined the main effects of the social context on individual attitudes, perceptions, and needs.

First, individuals' social environment provides information that could be used to characterize the work environment. For example, continuous explicit statements by coworkers that a job does not allow balancing work and family needs would force individuals to either reject such statements or factor them into their own evaluations of WFC. Another example would be individual employees observing the long work hours of other work group members and using this as a signal to characterize their job as demanding at the expense of family time. Second, social influence may make specific environmental attributes salient and ensure that individuals assign a higher weight to such attributes. For example, coworkers may highlight the absence of a supportive work environment or state that the environment is less family friendly than other work units within that organization. Third, the social context could provide cues about how others in the organization evaluate the work environment. For example, employees who observe that their supervisor does not allow a coworker to leave work early to take care of a sick child may interpret this action either as their supervisor's lack of concern for an employee's personal life situation or the supervisor's focus solely on organizational performance. Fourth, individuals understand and shape their needs, values, and perceptions on the basis of interaction with others, suggesting that social influence provides a lens through which individuals make evaluations of their work environment. On the basis of this understanding, individuals then engage in a process of rationalization to understand their needs and perceptions. For example, a statement from a coworker suggesting that a job does not allow individuals to balance work and family needs would indicate that this is both a particular attribute of the job and that this job attribute is critical for an individual.

Another line of research that supports the study of WFC as a group-level construct stems from the substantial work done in recent decades on collective structures. Giddens (1993) argued that collectives should be studied as systems of interactions. Although the most elementary unit of analysis in any social system is the individual behavioral act, this act is not random, nor does it occur in a vacuum (Morgeson & Hofmann, 1999). Individual actions, as well as perceptions, are limited and influenced by the social context in which they occur. Especially when individuals are part of a collective, such as a work group, individuals' actions encounter one another in space and time (Allport, 1967), resulting in interpersonal interaction (Morgeson & Hofmann, 1999). Interpersonal interactions affect both sides and are more likely to occur in work groups because of joint time and space effects. Morgeson and Hofmann (1999) summarize by stating that "mutual dependence (or interdependence) between individuals creates a context for their interaction" (p. 252) and that "this interaction is the basic building block upon which all larger collective structures are composed" (p. 252). When interactions occur in larger groups of individuals, a structure of collective action emerges. This structure then transcends the individuals who compose it, giving rise to a new construct that has a different effect from simply the action of all individuals that constitute it.

Work groups in organizations possess the qualities of these aforementioned collectives because they facilitate much interdependence among individuals. In turn, this interdependence perpetuates more interpersonal interactions among individuals, giving rise to a collective construct. Because work groups are reasonably durable in their membership over time (Fry & Slocum, 1984), work group members may be able to exert social influence over an individual member of the group and reach some level of shared work-related perceptions about WFC (van Emmerik & Peeters, 2009). This is done through the act of conveying information about the relationship between work and family in the work group, just as other work-related perceptions are conveyed, such as cohesion (Carron et al., 2004), leadership climate (Bliese & Halverson, 2002), and other group-level perceptions of the work environment (Choi, 2007).

Therefore, we argue that a group-level construct of WFC should be able to capture at least some of the group influence exerted on an individual through the mechanisms discussed earlier. In turn, individuals would base their perceptions of WFC through the information they receive from their work group regarding WFC (we do not focus on actual transmission of information between work group members but consider it to take place according to the theoretical premises of SIP theory). Thus, this group level of WFC is expected to have a positive association with the WFC of an individual.

Hypothesis 1: The group level of WFC is positively related to the level of WFC of a focal individual in a work group.

A second concern about a group-level construct of WFC is the operationalization of such a construct. Much theoretical development and understanding of how group-level constructs should be constructed has taken place in the past 2 decades (e.g., Chan, 1998; Chen, Bliese, & Mathieu, 2005; Klein, Dansereau, & Hall, 1994; Morgeson & Hofmann, 1999). It should be noted that theory, as opposed to analytical concerns, should take the prime place when deciding how to develop and measure group-level constructs (Klein et al., 1994; Morgeson & Hofmann, 1999). We chose to base our aggregation on the additive model following

Chan's (1998) typology. This model specifies that the higher level construct (group WFC) can be understood as a summation of a lower level construct (individual WFC) without considering the variance of the lower level construct. According to the additive model, the variance of individual WFC is not a concern, because the variability in individual WFC arises from both work and family domains. Hence, work groups can be classified as high or low on group WFC, irrespective of the level of within-group individual-level agreement (Chan, 1998).

On the basis of the additive model, a WFC measure assessing perceptions at the group level is constructed by aggregating individual WFC. This group-level operationalization of WFC can be considered an overarching perception of interrole conflict between work and family domains, which manifests itself through group members' individual experiences of this interrole conflict between work–family domains. Moreover, as we discuss later, we expect individuals who are similar to their work group in terms of demographics to be affected more by group-level WFC than individuals who are less similar to their work group. Such a prediction cannot assume that the variability within the group is smaller than the variability between the groups.

The Moderating Effects of Support and Demographic Dissimilarity

In this study, we ask the following primary question: Does WFC in work groups influence WFC for individuals? We then identify the conditions under which these work group effects are more or less likely to influence individuals. We propose two specific moderators that potentially influence the relationship between work group WFC and individual WFC: work group support and the demographic dissimilarity of each individual with respect to the work group. These moderators were selected because both social support and demographic dissimilarity are likely to enable greater transmission of work group WFC effects. This could be attributed to the increased contact and informational relevance that are likely to result when an individual receives social support from the work group or is similar to others in the work group. Thus, these moderators are likely to accentuate the perceptions of WFC from the work group to the individual.

Work Group Support

Social support is considered to be the instrumental, emotional, informational, and appraisal support individuals receive through interactions with other individuals or groups (House, 1981). Researchers have consistently recognized the positive role support plays in mitigating adverse work outcomes that result from job stressors (e.g., Kahn & Byosiere, 1992). Greenhaus and Beutell (1985) proposed that social support has a direct effect in mitigating WFC and also moderates the relationship between WFC and psychological well-being. Consistent with this proposition, researchers have suggested that the provision of social support is associated with perceptions of lower WFC (Allen, 2001; Carlson & Perrewe, 1999; Warren & Johnson, 1995). Moreover, the role of social support in weakening the effects of stress has been well established (i.e., social support protects individuals from the negative consequences of stressful events; Cohen & Wills, 1985; Frese, 1999; House,

Umberson, & Landis, 1988; Viswesaran, Sanchez, & Fisher, 1999). Social support thus has both a direct and a moderating effect in influencing the stressor–strain relationship.

Further, Westman (2001) has proposed that interactions between individuals where inadequate levels of social support were provided may affect the crossover process (i.e., a stressor an individual experiences affecting the stress level of another individual within the same social system, such as a work group). A test of this proposition revealed husbands' social support mitigated the relationship between wives' job stress and WFC (Westman & Etzion, 2005). A similar crossover effect of wives' social support for the relationship between family stress and WFC for the husband was also identified.

On the basis of theory and empirical research, one would posit that social support has both a direct and a moderating effect on WFC. Consistent with previous research, we expect a direct, mitigating effect of social support on individuals' WFC. However, we also suggest that social support has a moderating role in the relationship between work group WFC and individual WFC. In the current study, the moderating role of social support is complicated by the group-level nature of WFC and also by SIP. On the basis of SIP theory, social support may serve to exacerbate the effects of work group WFC on individual WFC. Given that high levels of social support suggest that individuals interact with and know about the stressors and experiences of others, this social information is more likely to engender the transmission of other work group members' WFC (Duffy, Ganster, & Pagon, 2002; Kaufmann & Beehr, 1986). Further, an individual who perceives work group members to be helpful and supportive may lend higher credence to the information received from this supportive work environment (Kaufmann & Beehr, 1986). Thus, individuals receiving a high level of social support may receive more information from the work group regarding WFC and may also deem this information to be relevant.

Hypothesis 2: Work group WFC has a stronger influence on individual WFC for individuals who receive higher social support from their work group.

Work Group Demographic Dissimilarity

As discussed earlier, SIP theory suggests that individuals' perceptions are shaped by their work group. However, the degree to which these individual perceptions are shaped by the work group is likely to vary. We focused on demographic differences among group members as one potential explanation for this variation. Therefore, we argue that individuals weigh information from other group members on the basis of how demographically dissimilar they are to one another. Taking into consideration the role of work group diversity is also consistent with the increasing demographic diversity found in the workforce and with the call for a better understanding of how individual demographic differences affect the functioning of the work group (Harrison, Price, & Bell, 1998).

The need for incorporating demographic variables has long been considered in empirical (e.g., Byron, 2005) and theoretical (Voydanoff, 2002) research in the work–family area. However, Eby et al. (2005) observed that WFC studies mainly consider objective characteristics of individuals' work roles (e.g., experience levels) or family roles (e.g., parental status), which do not account for the complexity associated with these roles. These

researchers further noted that mere knowledge about the relationship between the number of dependents (an objective family characteristic) and WFC is not sufficient to allow researchers to understand the underlying reasons for this relationship. In particular, Casper et al. (2007) called for research at the work group level "to examine how characteristics such as… family similarity may relate to between-group differences in outcomes such as the average WFC reported in the group" (p. 35). We attempt to address this issue by linking the SIP and relational demography literatures, suggesting that one mechanism of how an objective family characteristic (e.g., the number of dependents) affects WFC is through the extent to which this characteristic is shared with other members of the work group.

Demographic differences, or heterogeneity, are defined as "differences among group members in overt, biological characteristics that are typically reflected in physical features… such characteristics include age, sex, race/ethnicity" (Harrison et al., 1998, p. 97). Relational demography researchers have suggested primarily unfavorable work outcomes (e.g., negative relationships with turnover, O'Reilly, Caldwell, & Barnett, 1989; organizational attachment, Tsui, Egan, & O'Reilly, 1992) associated with demographic dissimilarity in work groups. A combination of theoretical frameworks provides the reasoning behind these findings.

SIP theory emphasizes that "people evaluate information sources in terms of personal relevance, using similar others for comparison: the more similar someone is, the more relevant his or her views for understanding one's own world" (Salancik & Pfeffer, 1978, p. 228). In accordance, the similarity–attraction paradigm highlights the fact that positive outcomes at work are a function of perceived similarity, which is related to liking and attraction (Byrne, 1971). Social categorization theorists have discussed why this perceived similarity is associated with positive outcomes (Tajfel, 1982; Turner, 1987). These theorists have postulated that for individuals to decide whether they perceive dissimilarity with others, they need to define themselves first. Individuals categorize themselves on the basis of characteristics such as race, sex, group membership, and status, among others, and this categorization serves to maintain individuals' self-esteem. These demographic characteristics are also used to categorize others and predict their likely behaviors, because demographically similar individuals are likely to share similar backgrounds and experiences (Chatman et al., 1998). Therefore, demographic characteristics are assumed to be related to underlying characteristics, such as values, cognitive styles, and past experience (Chatman et al., 1998), and serve a social influence function by determining individual attitudes, behavior, and perceptions, such as perceptions of WFC.

Thus, according to social identity theory (Tajfel, 1978; Turner, 1982), individuals define "others" systematically by assigning them to different categories; this assignment helps individuals predict the expected behavior of "others" and behave accordingly. Also, by defining "others" individuals are able to define themselves; hence, individuals who perceive themselves as more similar to the group may, in turn, be more influenced by the group. On the other hand, individuals who perceive themselves as dissimilar to the group are likely to look for other sources of reference that would influence their behaviors and perceptions. As a result, work group WFC is less likely to influence individual WFC when the work group is composed of demographically dissimilar individuals.

In this study, four demographic dissimilarity moderators were considered. Of these, two are frequently studied demographic dissimilarity variables in the work group: sex and tenure (

Riordan, 2000). Two additional demographic dissimilarity variables are especially pertinent for an outcome such as WFC: marital status and the number of dependents. Marital status has been used as a demographic dissimilarity variable and is considered to be observable through visual cues, such as the presence of a wedding ring worn by an employee (Harrison, Price, Gavin, & Florey, 2002). Correspondingly, the demographic dissimilarity variable of the number of dependents can also be considered to be an observable one on the basis of visual cues, such as family pictures that employees frequently have of their dependents in their work space, and because it is a topic of casual conversation regarding nonwork activities.

The conceptualization and operationalization of these demographic dissimilarity variables are based on the guidelines of Harrison and Klein (2007). Harrison and Klein posited that diversity constructs, such as demographic dissimilarity, can take three different forms: separation, variety, and disparity. In this study, we conceptualized our demographic dissimilarity constructs as separation. According to Harrison and Klein, the diversity on demographic attributes reflects "opposing beliefs" (p. 1209) regarding work group attitudes, beliefs, and perceptions, and is negatively related to "cohesion and identification within a unit" (p. 1209). In other words, the lower the separation of work group members in terms of sex, marital status, tenure, and number of dependents, the higher the likelihood of similarity in attitudes, values, beliefs, and perceptions.

Hypothesis 3: Work group demographic dissimilarity in terms of (a) sex, (b) tenure, (c) marital status, and (d) number of dependents, moderates the relationship between work group WFC and individual WFC, such that the higher the work group demographic dissimilarity, the weaker the effect of the work group WFC on individual WFC.

Method

Sample and Procedures

The sample for this study was drawn from an employee survey conducted at a large Midwestern university in the United States. The invitation to participate in the survey was sent by e-mail to a sample of 6,283 staff employees of the university. Faculty employees were not included in this survey. A total of 2,407 completed surveys were received for a response rate of 38%. The nature of the research questions necessitated the identification of the work group for each individual. Each respondent had a unique survey identifier sent through the invitation letter, which was linked a priori to existing organizational administrative records. Organizational administrative records identified respondents' work groups, which were either specific departments (e.g., educational psychology) or functions (e.g., university relations). The administrative data also allowed us to categorize and identify large departments, such as those in the medical school, into smaller work units (e.g., neurology, ophthalmology, psychiatry, etc.). Thus, we used the administrative data to place each respondent into a unique work group. We then used the survey identifier to match the work group data from administrative records to the respondents' survey data.

Data from work groups with fewer than three individuals were eliminated from the analyses (see Glomb & Liao, 2003, for a similar approach). We also eliminated those in work groups exceeding 30 individuals (2% of the total work groups). Because of technical issues, data

from 189 individuals were not matched to the administrative data. The final sample consisted of 1,547 individuals in 230 work groups for an average of 6.73 respondents per work group.

Measures

WFC

We assessed WFC, the dependent variable, with a five-item measure assessed on a 7-point Likert-type scale developed by Netemeyer et al. (1996). Sample items on the scale were, "The demands of my work interfere with my home, family or life" and "Due to work-related duties, I have to make changes to my plans for family or activities." The reliability for this scale was .95. Given our primary interest in examining the effects of group WFC on individual WFC, we assessed an overall measure of WFC rather than a more nuanced measure of WFC that incorporates the role, strain, and time-based components of WFC (e.g., Stephens & Sommer, 1996).

Work group WFC

We aggregated the individual responses of WFC to the work group level by taking the average of WFC scores for all members of the work group, excluding the score of the focal respondent (see Glomb & Liao, 2003, and Robinson & O'Leary-Kelly, 1998, for a similar procedure). Glomb and Liao (2003) noted that such an approach results in work group scores that are uncontaminated from common method bias problems, which are often prevalent when using self-report measures. Removing the focal individual ensures that the relationship between work group WFC and individual WFC is not inflated because of the outcome value being included in the predictor composite (Glomb & Liao, 2003).

As discussed earlier, we based our aggregation on the additive model following Chan's (1998) typology, wherein group WFC can be considered as a summation of individual WFC, without a primary focus on the variance of individual WFC. Empirical support to further justify the aggregation to a group-level measure of WFC was provided by a one-way analysis of variance, which revealed significant between-group differences for WFC, $F(229, 1458) = 1.44$, $p < .01$ (Klein et al., 2000).

Perceived work group support

To assess social support, we focused on the construct of perceived organizational support, which refers to employees' beliefs regarding the organization's commitment to them (Eisenberger, Huntington, Hutchinson, & Sowa, 1986). We used the shortened nine-item version of the measure assessing perceived organizational support developed by Eisenberger et al. (1986). We used a 7-point Likert-type scale measuring perceived organizational support to assess individuals' responses to the organization as a whole. Because our focus was on the work group and given the context of our sample—a large university setting with numerous departments—we changed the referent from the organization to the department for all items. Moreover, participants used the term department in everyday work life to refer to their work groups. The coefficient alpha for this scale was .95.

Demographic dissimilarity

Harrison and Klein (2007) suggested that researchers use Euclidean distance measures when diversity constructs are conceptualized as separation, as they were in this study (see earlier

discussion). Accordingly, on the basis of Tsui et al.'s (1992) approach, we used a Euclidean distance formula to compute demographic dissimilarity variables for sex, tenure, marital status, and number of dependents. This formula is the squared root of the summed squared difference between an individual's value on a particular demographic attribute and the value for the same attribute for all the other work group members divided by the number of work group members. Larger values of these demographic dissimilarity measures reflect larger differences, such that an individual with a higher score on a demographic dissimilarity variable indicates that he or she differs more on that variable from other work group members.

The use of such distance measures has been criticized (e.g., Edwards, 1994), and some studies have used an interaction term approach to measure demographic dissimilarity (e.g., Riordan & Shore, 1997). However, the interaction term approach also has limitations (Riordan, 2000), and an overwhelming majority of studies have continued to use the Euclidean distance measure to operationalize demographic dissimilarity (e.g., Chatman et al., 1998; Chattopadhyay, 1999, 2003; see Riordan & Wayne, 2008, for a recent review). Moreover, for reasons outlined earlier, Harrison and Klein (2007) specifically recommended using Euclidean distance measures when demographic dissimilarity variables are conceptualized as separation.

Control variables

We included as controls a set of individual-level variables that are related to individual WFC and arise in work and family environments. These include sex, number of dependents, marital status, age, tenure, work hours, and size of the work group. Authors of meta-analyses have reported mixed findings with respect to sex (Eby et al., 2005), with some studies showing no sex differences in WFC, others suggesting that WFC is higher for women, and a few suggesting that it is higher for men. Number of children, marital status, and working hours were positively related to WFC (Byron, 2005). Younger employees and those with shorter tenure have been reported to experience more WFC (Grandey & Copranzano, 1999), though other researchers have observed that these effects operated for older men and those with higher tenure (Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989). Research also provides some support for job satisfaction as an antecedent of WFC (Eby et al., 2005); satisfaction with supervision, a facet of job satisfaction from the Job Descriptive Index (five-item scale, $\alpha = .81$; Smith, Kendall, & Hulin, 1969), was considered because it is indicative of how organizational work–family policies are applied by supervisors (Kossek, 2005) as well as reflective of other aspects of supervisory attitudes and behaviors. Finally, group size, which is considered to affect the relational demography of a work group (O'Reilly et al., 1989), was included as an additional control.

These control variables were at the individual level and spanned the work and family domains. Because the research questions of interest are at the work group level, additional variables to control for work demands were included, because prior research has shown the effect of job demands on job strain (e.g., Karasek, 1979) along with an adverse relationship with WFC (Yang, Chen, Choi, & Zou, 2000). These work demand variables were assessed for each job and not for particular individuals as outlined later.

In our university sample, we included a variety of occupations, such as librarians, lab coordinators, and receptionists. For each job, the university assigned an occupational code

based on the Standard Occupational Classification devised to classify workers into occupational groups (U.S. Department of Labor, Bureau of Labor Statistics, 2008). We obtained these Standard Occupational Classification codes for each survey respondent from administrative data provided by the university, which allowed us to generate job demands on the basis of O*NET (a repository of occupational information in the United States; U.S. Department of Labor, Employment and Training Administration, 2008). We computed three job demands: cognitive ($\alpha = .98$), physical ($\alpha = .93$), and emotional ($\alpha = .90$) labor demands on the basis of the methodology detailed in Glomb, Kammeyer-Mueller, and Rotundo (2004) and subsequently replicated in other work (e.g., Bhave & Glomb, 2009; Côté & Miners, 2006). These three job demands enabled us to control for additional demands in the work domain that can potentially affect perceptions of WFC.

Results

Descriptive statistics and intercorrelations are reported in Table 1. The correlations are consistent with prior research, in that there is a negative correlation between work group support and WFC ($r = -.16$, $p < .01$), and there are positive correlations between WFC and work hours ($r = .40$, $p < .01$) and between WFC and number of dependents ($r = .10$, $p < .01$). WFC is higher for those who are male and married. Of note, the correlation between work group WFC and individual WFC was positive and statistically significant ($r = .13$, $p < .01$).

Table 1
Means, Standard Deviations, and Bivariate Correlations for Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. WFC	3.31	1.67	—																	
2. Work group support	4.73	1.51	−.16	—																
3. Hours worked	42.89	7.14	.40	.05	—															
4. No. dependents	1.18	1.27	.10	.03	.02	—														
5. Marital status[a]	0.29	0.46	−.10	−.10	−.04	−.30	—													
6. Sex[b]	0.68	0.47	−.09	.00	−.23	−.06	.13	—												
7. Age	43.66	10.45	.07	.02	.09	.26	−.11	.03	—											
8. Tenure in job	6.85	7.18	.04	−.05	.02	.11	−.08	−.03	.43	—										
9. Group size	6.73	5.41	−.07	−.03	.01	−.08	.04	.01	−.09	−.06	—									
10. Cognitive demands	0.00	1.00	.19	.14	.28	.09	−.09	−.21	.13	.03	−.04	—								
11. Physical demands	0.00	1.00	.09	−.08	.06	.05	−.07	−.19	−.08	.04	.04	−.06	—							
12. Emotional labor demands	0.00	1.00	.15	.07	.18	.00	−.03	.03	.09	−.03	.01	.32	−.10	—						
13. Satisfaction with supervision	2.32	0.86	−.11	.50	.04	.01	−.05	−.05	−.03	−.09	.03	−.00	.08	.01	—					
14. Work group WFC	3.31	0.79	.13	.04	.13	.05	−.06	−.04	.01	−.03	−.12	.02	.04	.12	.04	—				
15. Sex dissimilarity	0.53	0.25	.06	−.02	.13	−.01	−.05	−.50	−.03	.04	.17	.16	.07	−.02	.06	.05	—			
16. Tenure dissimilarity	7.78	4.53	−.02	−.03	.02	.01	−.01	−.02	.19	.64	.09	−.04	.09	.02	−.03	−.01	.08	—		
17. Dependents dissimilarity	1.44	0.64	.06	−.03	.06	.42	−.05	−.03	.04	.04	.08	.03	.07	.02	.01	.12	−.03	.06	—	
18. Marital status dissimilarity	0.55	0.24	−.08	−.06	−.03	−.19	.55	.05	−.10	−.05	.27	−.06	−.06	.02	−.04	−.17	.08	.07	.02	—

Note. Correlations greater than |.05| are significant at $p < .05$. WFC = work–family conflict.
[a] Married or living with a partner = 0; single, divorced, or widowed = 1. [b] Male = 0, female = 1.

We used STATA 9.0 to test the hypotheses with multilevel modeling procedures (Raudenbush & Bryk, 2002). The coefficients of the fixed effects from the multilevel analysis are reported in Table 2. In Hypothesis 1, we examined whether group WFC was positively related to individual WFC. As expected, we found a positive relationship between work group WFC and individual WFC ($\hat{\gamma} = .07$, $p < .01$), indicating that a 1 SD increase in work group WFC is associated with a 0.07 SD increase in a focal individual's WFC. This provides empirical support for Hypothesis 1.

Table 2

Multilevel Model Results: Effects of Work Group Work–Family Conflict, Support, and Demographic Dissimilarity on Individual Work–Family Conflict

| Variable	Controls	Work group WFC effect	Work group support effect	Demograph dissimilarity ef
Intercept	−1.87**	−1.88**	−2.14**	−2.19**
Work hours	.05**	.05**	.05**	.05**
Job tenure	.00	.00	.00	.01*
Sex	.08	.08	.09	.10
Age	−.00	−.00	−.00	−.00
Marital status	−.12*	−.12*	−.15**	−.14*
No. of dependents	.05**	.05*	.05*	.05*
Group size	−.01*	−.01*	−.01**	−.01*
Cognitive demands	.08**	.08**	.09**	.09**
Physical demands	.08**	.08**	.06*	.06*
Emotional labor demands	.06*	.06*	.06**	.06*
Satisfaction with supervision	−.15**	−.15**	−.04	−.03
Work group WFC		.07**	.07**	.07**
Work group support			−.19**	−.19**
Work Group Support × Work Group WFC			.06**	.07*
Sex dissimilarity				.02
Job tenure dissimilarity				−.07*
No. of dependents dissimilarity				−.01
Marital dissimilarity				−.00
Sex Dissimilarity × Work Group WFC				.05*
Job Tenure Dissimilarity × Work Group WFC				.02
No. of Dependents Dissimilarity × Work Group WFC				.04*
Marital Dissimilarity × Work Group WFC				.01
n (Level 1)	1,547	1,547	1,547	1,547
n (Level 2)	230	230	230	230
Model deviance[a]	4,034.40	4,031.34	3,973.84	3,956.44

Note. Entries for the independent variables are estimates for the fixed effects, γs. WFC = work–family conflict.
[a] Model deviance is an indicator of model fit—the smaller the deviance statistic, the better the model fit (Burnham & Anderson, 2004; Cavanaugh, 2
Deviance = −2 × log likelihood of the full maximum likelihood estimate.
* $p < .05$. ** $p < .01$.

In Hypothesis 2, we examined the moderating role of social support in the relationship between work group WFC and individual WFC. Although not hypothesized, the direct effect of work group support was negative ($\hat{\gamma} = −.19$, $p < .01$), suggesting that lower levels of social support were associated with higher WFC, a result consistent with prior research (Allen, 2001; Carlson & Perrewe, 1999). Moderator analyses revealed that the coefficient of the interaction term was positive and statistically significant ($\hat{\gamma} = .06$, $p < .01$). As the interaction plot in Figure 1 indicates, individuals receiving a low level of social support from their work group have higher levels of WFC, regardless of the level of work group WFC (a result due to the direct effect of social support). However, it seems that the SIP operates only for individuals receiving a high level of work group social support. This is indicated by the positive relationship between work group WFC and individual WFC for those individuals who have high levels of work group social support ($p < .05$), but not for individuals who have low levels of work group social support, which provides support for Hypothesis 2.

Figure 1. Moderation effects of work group support on the relationship between work group work–family conflict (WFC) and individual WFC.
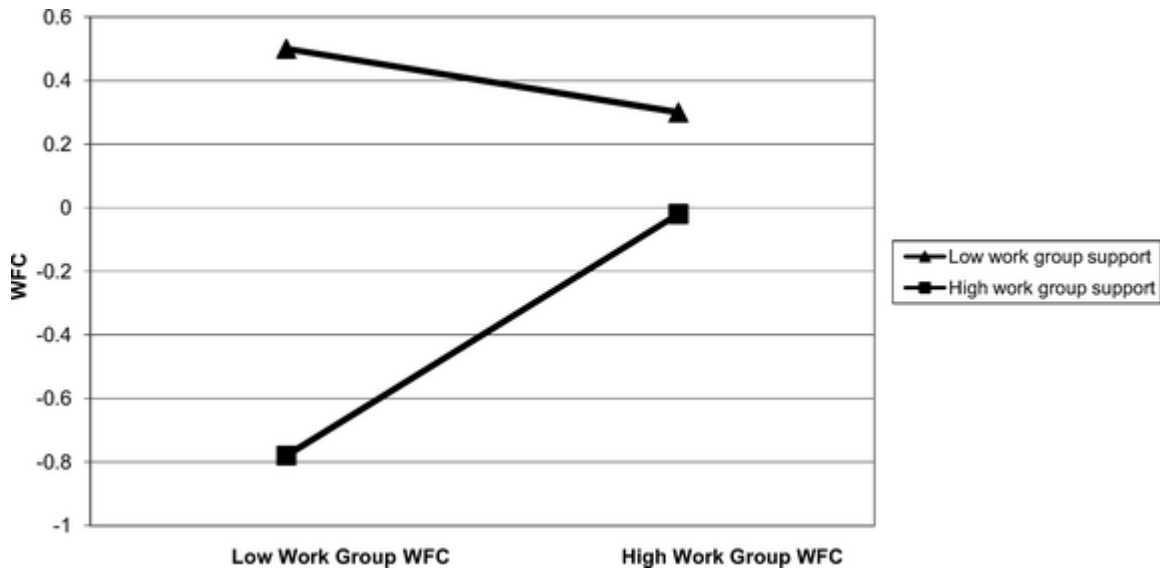
A noteworthy finding is that work group social support is important enough to allow individuals who receive high levels of support from their work group to maintain below average levels of WFC, even if their work group has very high WFC. In contrast, individuals who receive low levels of social support from their work group experience levels of WFC that are higher than average, regardless of their work group's level of WFC.

In Hypothesis 3, we predicted that the demographic dissimilarity measures of sex, job tenure, marital status, and number of dependents have a moderating effect on the relationship between work group WFC and individual WFC. Although the moderators of job tenure dissimilarity and marital status dissimilarity were not statistically significant, sex dissimilarity ($\hat{\gamma}= .05$, $p < .05$) and number of dependents dissimilarity ($\hat{\gamma}= .04$, $p < .05$) were statistically significant, but in the direction opposite to that hypothesized (see Figures 2A and 2B). Thus, there was a statistically significant positive relationship between work group WFC and individual WFC for individuals who were demographically dissimilar (sex and number of dependents) to their work group; this result was not observed for those who were dissimilar to their work group in tenure and marital status. In summary, Hypothesis 3 was not supported but had an intriguing result: The effects of work group WFC on individual WFC are stronger for individuals who are dissimilar to their work group in sex and number of dependents.

Figure 2. A: Moderation effect of sex dissimilarity on the relationship between work group work–family conflict (WFC) and individual WFC. B: Moderation effect of dissimilarity in
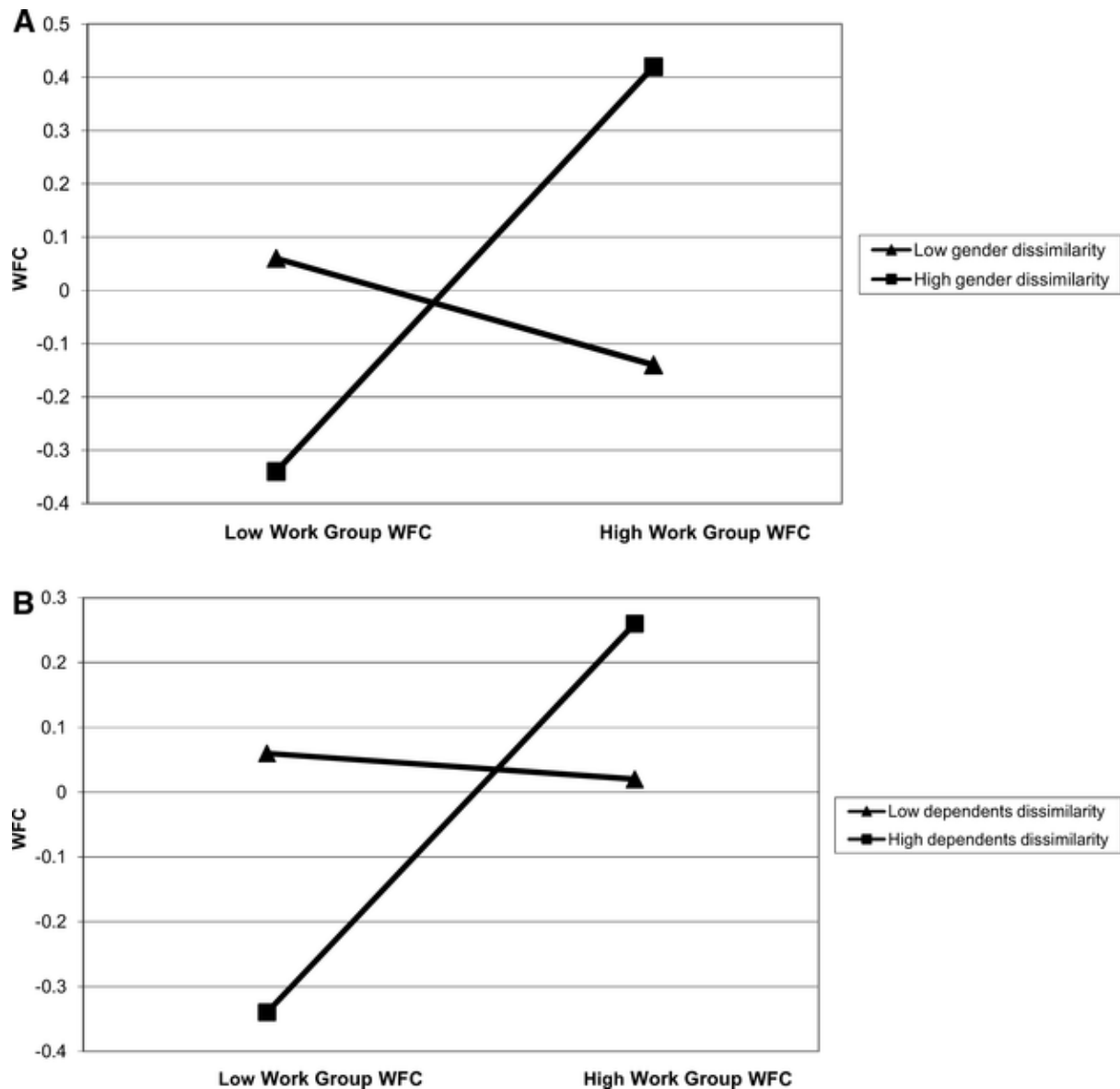
number of dependents on the relationship between work group WFC and individual WFC.

Discussion

The primary objective of this study was to examine whether work groups' perceptions of WFC influenced individual employees' experiences of WFC. A related goal of this study was to assess whether work group social support and work group demographic dissimilarity moderated this relationship. The results of this study suggest a positive relationship between work group WFC and individual WFC after controlling for a variety of work and family demands, thereby highlighting the relevance of the work group in shaping individual perceptions of WFC. On the basis of the propositions of SIP theory, this is suggestive of a transmission process of WFC from work groups to focal individuals.

This study emphasizes the role of an important social system, the work group, for influencing individuals' WFC perceptions. It also contributes to the literature by emphasizing the relevance of work group social support in mitigating the experience of WFC for individuals, a result that is consistent with prior work reporting similar effects of social support. Individuals who received high levels of social support from their work group reported significantly lower levels of WFC compared with those who received lower levels of support from their work group. Furthermore, we observed that individuals who received high levels of social support from their work group had WFC levels that were below the average level, even if their work group had very high levels of WFC. Conversely, individuals receiving low levels of social support from their work group were above the average level of WFC, despite the low levels of WFC of their work group. Our findings reinforce the importance of social support as a buffer of undesirable work perceptions (direct effect). The benefits associated with the direct effects of social support, however, may be tempered by the moderation effects, which suggest that perceptions of WFC are transferred indirectly from the group to the individual more intensely when social support is higher, rather than when it is lower. Studies in the stress literature report a similar effect as observed in this study for WFC: When individuals perceive social support to be high, they may engage in support seeking, which in turn may be related to higher stress (see Coyne & Downey, 1991; Thoits, 1995).

An additional contribution of this study is the inclusion of the construct of demographic dissimilarity in work–family research. We expected that higher demographic dissimilarity in the work group would weaken the effects of work group WFC on individual WFC. However, we observed an opposite effect. Specifically, the work group WFC had a stronger impact on individual WFC for individuals who were dissimilar in sex and number of dependents than on individuals who were more similar to the work group in these demographic attributes.

This finding can be explained on the basis of social identity theory (Tajfel, 1978; Turner, 1982), which suggests that if individuals are dissimilar to the group on different demographic attributes but identify with the group, they would feel greater pressure to conform to group norms, perception, and attitudes. In accordance, Ashforth and Mael (1989) stated that identification with the group "amounts to depersonalization of the self… and it increases the perceived similarity with other group members and the likelihood of conformity to group norms" (p. 26). This argument is supported by studies on minority groups (see, e.g., Tafarodi, Kang, & Milne, 2002), which have suggested that when an individual has attributes that are different from the majority group, the individual shows compensatory conformity, that is, a tendency to align oneself with norms, behaviors, attitudes, and perceptions of the group to compensate for one's dissimilarity on other attributes (Tafarodi et al., 2002).

In other words, individuals who are dissimilar to the work group in sex and number of dependents are likely to experience additional pressure to conform to group perceptions (Liao, Joshi, & Chuang, 2004), because conforming to group perceptions is more feasible than becoming similar in actual demographic attributes. For example, it is possible that a woman in a majority-male work group would try to identify with the work group by being more receptive to information and cues about perceptions of WFC in the work group to obtain greater acceptance in the work group because she is dissimilar to the work group on sex. Similarly, a work group member with no dependents in a group where the majority of members have dependents would be more receptive to information and cues about perceptions of WFC from the work group because that may allow this employee to conform

to the work group. In summary, it is possible that individuals who are dissimilar to their work group in demographic characteristics, such as sex and number of dependents, feel a greater need—or perhaps pressure—to identify with the work group. This identification enhances their receptiveness to information and cues from the group; hence, group-level WFC has a stronger effect on their individual WFC.

Although contrary to our initial expectations, these work group demography findings reinforce Pfeffer's (1983) observation that in organizations, it is the composition of different demographic characteristics, such as sex, age, or race, that is important and not just the descriptive statistics of the mean or proportion of these variables. In other words, the demographic composition (in terms of dissimilarity) of a work unit in an organization is relevant to understanding WFC, and simply considering the distribution of demographic characteristics across the entire organization may not be appropriate.

Overall, the results of this study support the premises of SIP theory, suggesting a transmission process of WFC from the work group to a focal individual. However, we did not assess this transmission process explicitly; thus, it can be argued that there are potential alternative explanations of the association between group WFC and individual WFC. Spillover, the notion that the effects of work and family environments create similarities between these two domains (Lambert, 1990; Staines, 1980; Zedeck, 1992), may be one such mechanism. Although spillover is generally considered at an individual level of analysis and between the two domains of work and family (see Edwards & Rothbard, 2000), our results suggest that it may also manifest at a group level between individuals. Spillover may occur in a variety of forms: Mood spillover (Williams & Alliger, 1994) may occur when negative moods are transferred because of WFC between work group members; behavioral spillover may occur when situational cues, such as work role requirements between work group members, are similar (Edwards & Rothbard, 2000). We acknowledge that spillover may be a potential explanation of the results—a mechanism that we were unable to explicitly test in this study.

However, it is interesting to note the similarity between the arguments of SIP and the mechanism outlined by behavioral spillover, that is, "the transfer of behaviors between domains… when behaviors have been internalized as habits or scripts and situational cues in the domains are similar" (Edwards, & Rothbard, 2000, p. 187). Situational cues, pieces of information communicated between work group members, such as statements by work group members about work–family issues or the absence of a supportive work environment, have been discussed previously in the context of SIP. This reveals a possibility for future research to theoretically integrate SIP and spillover mechanisms in work–family research and also to probe different dimensions of spillover (positive and negative spillover; Grzywacz & Marks, 2000) between individuals and their work groups.

It can also be argued that spillover may manifest because of the transfer of actual workload from one individual in the work group to other work group members. Consider a situation in which a focal individual in a work group is required to pick up the slack of other work group members who are experiencing family demands. In this situation, spillover may occur between individuals of the work group but within a domain (the work domain). Note that such a situation would be a slight modification of the application of spillover theory, which generally addresses spillover between domains (work and family) but within a focal

individual. Although the mechanism of spillover of actual workload from work group members to a focal individual may be a compelling alternative explanation, it cannot fully explain our results for several reasons. First, in addition to objective measures of work demands, we also controlled for self-reported work hours, which would capture, to some degree, increases in individuals' workloads caused by other group members' family demands interfering with work. Although this is only a proxy for workload that may arise because of work group members' family demands, accounting for both work hours and work demands aids in accounting for such potential workload effects. Second, the operation of a moderating effect of social support is not consistent with an explanation reliant on the spillover of actual workload to other group members. Specifically, as outlined earlier, the SIP mechanism can explain why the transfer of perceptions of WFC from the work group to a focal individual is more intense when social support is high but not when social support is low. This moderation effect is undergirded by SIP but is difficult to explain with a mechanism of actual workload spillover. Thus, although the idea that family demands for some group members (and associated family-to-work conflict) may result in actual workload spillover to a focal individual is intriguing and merits future research attention, we do not believe that it can wholly explain our results.

In terms of practical implications, the findings of this study underscore the relevance of the work group when organizations design policies to address WFC of their employees. Beyond work demands, employee perceptions of WFC are also shaped by their work group, necessitating a focus on work groups as another contributor to individual WFC. Therefore, interventions to make workplaces family friendly could be designed at the work group level rather than solely focusing on individual employees. For example, to understand specific WFC triggers, WFC could be assessed at the work group level. Such assessments may indicate a need for policies tailored to the work group; for example, flexible work schedules that are based on the specific needs of work group members. In general, we suggest that managers not only should be attentive and sensitive to the WFC of individual employees but should also acknowledge that WFC effects may reverberate throughout the work group.

This study also reinforces the importance of perceived work group support in mitigating WFC. In addition to informal events (e.g., work group lunch or coffee breaks), organizations may seek to enhance social support within work groups through a variety of formal mechanisms, such as mentoring (Nielsen, Carlson, & Lankau, 2001) and team training (Salas & Cannon-Bowers, 2001). However, the beneficial effects of social support need to be balanced because there is a higher transmission of WFC (possibly because of higher support seeking; Coyne & Downey, 1991; Thoits, 1995) when social support is high. To mitigate the transmission of WFC in such conditions, organizations could institute mechanisms that create avenues for social support from sources other than the work group. For example, work–family helplines, access to counseling services and wellness programs, or informal activities with attendance across work groups might offset some of the social support requirements within work groups.

Limitations and Future Directions

Because this study is based on a sample of employees in a single organization and because the majority of participants were women, the generalizability of the results across various

employee groups, such as employees in for-profit firms, may be limited. However, concerns about generalizability can arguably be minimized because of the large sample size and the variety of jobs included within the scope of this study. In addition, employees across four geographically separated campuses were included, which also allows for greater generalizability because the sample included a variety of distinct work group environments. Also, one advantage of studying a single organization is that it controls for the effects of formal work–family policies that exist across the organization and could potentially influence WFC. Although there may be differences in the application or use of these formal work–family policies by supervisors (Kossek & Ozeki, 1998), by controlling for work groups members' satisfaction with supervision, the effects of potential differences in supervisory practices on our results are mitigated.

Given the cross-sectional design of the study, it is difficult to state causal inferences. The causal processes responsible for the dynamic between work group WFC and individual WFC warrant additional examination, which is beyond the scope of the present study. Related to this, although we examined the relationship between work group WFC and individual WFC on the basis of SIP theory, we did not explicitly measure information exchanges between work group members. The results of this study allow us to make inferences about the transmission of social information but provide limited evidence of actual transmission of information. Also, the members of a particular work group were identified through administrative data. It is likely that a focal individual may consider information regarding WFC to be relevant from other work groups and informal groups. Future research could use other methodologies, such as network analysis, to identify such interaction patterns between work groups and individuals. Furthermore, this study considered an overall measure of WFC in examining the effect of the work group WFC on individual WFC. An extension for future research would be to examine distinct components of WFC (role, strain, and time; Stephens & Sommer, 1996) or coping with WFC to assess whether these evidence differing relationships between work groups and focal individuals.

The selection of relevant moderators of the relationship between work group WFC and individual WFC also deserves future research attention. Demographic dissimilarity can exist at two distinct levels: observable (or surface level) and nonobservable (or deep-level; Harrison et al., 1998; Milliken & Martins, 1996). The observable or easily accessible attributes include race, age, and sex, whereas the nonobservable or less easily detectible characteristics include job tenure, education, personality characteristics, values, perceptions, and attitudes (Milliken & Martins, 1996). Job tenure dissimilarity and marital status dissimilarity were not statistically significant moderators in our study; however, this may be because these variables are less observable than other demographic characteristics and perhaps because they are likely to have less influence on WFC perceptions. Alternatively, in the context of WFC, nonobservable attitudinal dissimilarity moderators, such as dissimilarity in perceptions of job involvement (Kanungo, 1982), work role centrality (Mannheim & Dubin, 1986), or work values (Meglino, Ravlin, & Adkins, 1989), may also be relevant. Beyond relational demography measures of dissimilarity, an interesting avenue for future research may be a closer examination of work group composition effects. This could facilitate an understanding of whether effects associated with work group WFC differ depending on the compositional complexities of a work group; for example, a woman (or a man) in a male-majority work group compared with a woman (or a man) in a female-majority work group.

Similar analyses can also be undertaken for other demographic characteristics, such as number of dependents and marital status.

It is possible that our results were subject to common method bias, because self-report data from a single source are used for some of the variables of the study. However, the inclusion of the predictor of work group WFC that was based on data only from group members other than the focal individual may mitigate some concerns associated with the common method bias. Further, many of the variables included in our multilevel models are objective (e.g., sex, number of dependents, etc., and job demands, derived from the O*NET, are provided by occupational analysts) and verifiable. Therefore, they are more immune to common method bias concerns. Finally, for two of our research questions, we tested interaction effects where common method variance concerns were minimal; correlated errors do not create spurious interactions but could attenuate true interactions (Evans, 1985).

In conclusion, prior research has extensively examined the individual differences variables related to individuals' WFC. The effects of the work group, however, on this individual-level perception have not been examined in detail. To that end, this study bridges this gap in the literature by revealing a positive relationship between the work group's WFC and individuals' WFC. Moreover, this relationship is moderated by work group support and by sex dissimilarity and number of dependents dissimilarity in work groups. This study indicates that WFC dynamics within work groups are a complex process and are in need of further elucidation to better understand WFC perceptions in the workplace.

Footnotes

1 A distinction between the terms team and group is not made here because it is not pertinent to the purpose of this study.

2 We received the administrative data for only those employees who responded to the survey, which made it difficult to ascertain response rates within work groups. However, as a secondary check, we randomly selected 10% of the work groups from the sample and verified the number of employees in these work groups through departmental records. The response rates within these randomly selected work groups ranged from 25% to 100%. As such, we have satisfactory evidence that the response rates within work groups were consistent with the overall response rate.

3 We thank the anonymous reviewers for this suggestion.

4 As pointed out by the reviewers, there may have been other third variables that influenced our findings. Although we controlled for a number of WFC antecedents from the nomological network, we recognize that failing to account for these third or omitted variables can result in endogeneity, which would violate standard regression assumptions and result in biased estimates (Wooldridge, 2002). Beyond omitted variables, another possible source of endogeneity is simultaneity (Wooldridge, 2002), that is, the correlation between the predictor of work group WFC and the error term in the multilevel models. Therefore, we performed multilevel two-stage least squares estimation, a general econometric solution to the problem of endogeneity. We used the Hausman test to detect endogeneity by comparing the multilevel two-stage least squares estimates with multilevel estimates reported in Table 2 (Wooldridge, 2002). Results of the Hausman test, $\chi 2 = 3.06$, $p > .05$, led us to reject the hypothesis of endogeneity and indicated that the estimates obtained through the multilevel analyses reported in Table 2 should be preferred because they are unlikely to be biased.

5 We thank the anonymous reviewers for this suggestion.

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