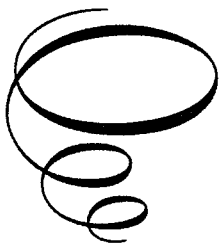
The Work-Family Balance in Light of Globalization and Technology

Edited by

Mireia Las Heras, Nuria Chinchilla and Marc Grau

Please cite as: Kossek, E. E., Petty, R. A, Michel, J. S., Bodner, T. B., Yragui, N., Perrigino, M., Hammer, L. 2017. Work-Family Subcultures: Workgroup multilevel influences on family supportive supervisor behaviors (Fssb) affecting individual sleep quality and safety performance. In Las Heras, M. Chinchilla, N.. Grau Grau, M. (Eds.) Work-Family Balance, Technology and Globalization. U.K.: Cambridge Scholars Publishing. P. 62-85.

Cambridge Scholars Publishing



The Work-Family Balance in Light of Globalization and Technology

Edited by Mireia Las Heras, Nuria Chinchilla and Marc Grau

This book first published 2017

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN (10): 1-4438-7337-3
ISBN (13): 978-1-4438-7337-6

3

Work-Family Subcultures: Workgroup Multilevel Influences on Family Supportive Supervisor Behaviors (FSSB) Affecting Individual Sleep Quality and Safety Performance

Ellen Ernst Kossek,
Purdue University, United States
Ryan A. Petty,
Roosevelt University, United States
Jesse S. Michel,
Auburn University, United States
Todd E. Bodner,
Portland State University, United States
Nanette L. Yragui,
SHARP Program, Washington State Department of Labor & Industries, United States
Matthew B. Perrigino
Purdue University, United States
and Leslie B. Hammer
Oregon Health Sciences and Portland State University, United States

Introduction[1]

An important trend in organizational research is the emergence of a multilevel perspective that moves beyond individual explanations of attitudes and behaviors to examine linkages to contextual influences from higher levels of the organization (Aguinis et al. 2011; Mathieu and Chen 2011; Rousseau 1978, 2011). Of particular importance for understanding individual outcomes are workgroup level contextual influences including perceptions of supervisors and co-workers. The social influence of supervisors and co-workers creates an immediate work environment of shared job demands and support influencing employees' occupational experiences (Gardell 1977). Despite an increased general interest in multilevel analysis in the organizational sciences, the work-family field has been relatively slow to incorporate multilevel analysis (Casper et al. 2007). Yet we know from research from public health (Diez-Roux 1998) and occupational health (Cooper, Dewe and O'Driscoll 2001) that the social and psychological conditions individuals experience at work, often referred to as the psychosocial environment, comprise a nested organizational structure shaping individuals' well-being (Hammer et al. 1996). We argue in this paper that the micro-contexts in which employees' are nested, namely their workgroups, are critical aspects of the work environment in which employees' work-family perceptions of leader support occur, which shape employee health and safety. We call these environments work-family subcultures: the shared perceptions of available group resources signaled by group size and shared strain that shape individual perceptions of supervisor family support.

This study responds to calls for more multilevel research focused on the

---

[1] The contents of this article are solely the responsibility of the authors and do not necessarily represent the official views of the institutes and offices identified below. This research was partially supported by the Work, Family and Health Network, which is funded by a cooperative agreement through the National Institutes of Health and the Centers for Disease Control and Prevention: National Institute of Child Health and Human Development (Grants U01HD051217, U01HD051218, U01HD051256, U01HD051276), National Institute on Aging (Grant U01AG027669), Office of Behavioral and Social Sciences Research, and National Institute for Occupational Safety and Health (Grant U010H008788). Special acknowledgment goes to extramural staff science collaborator Rosalind Berkowitz King (National Institute of Child Health and Human Development) and Lynne Casper (now of the University of Southern California) for design of the original Workplace, Family, Health and Well-Being Network Initiative. Persons interested in learning more about the Network should go to https://projects.iq.harvard.edu/wfhn/home.

contextual influences of groups on individuals' linkages to health and safety outcomes (Casper et al. 2007; Eby et al. 2005; Kossek and Lambert 2005). Drawing from research on psychosocial work environments and occupational health (Johnson and Hall 1996), our main premise is that individuals' perceptions of family supportive supervisor behaviours (FSSB) (Hammer et al. 2007) are shaped by workgroup characteristics. We develop and empirically test a multilevel model of the relationship between this workgroup psychosocial environment, family supportive supervisor behaviors (FSSB), and health (e.g. sleep) and safety outcomes. We designed the study to make a number of research contributions.

First, we add to work-family theory on multilevel modelling by integrating social information processing theory (Salancik and Pfeffer 1978) with broaden-and-build theory (Fredrickson 2001) to explain why a work group environment with less strain and fewer members may heighten positive perceptions of workplace leadership support for work and family. We show that employees own work and family experiences are shaped by cues from their social psychological context, namely their co-workers' attitudes and behaviors.

Second, most work-family studies typically adopt a micro-level perspective examining psychological and job antecedents as predictors of work-family outcomes such as conflict and job satisfaction. Relatively few management studies have examined multilevel work-family relationships using true multilevel nested data. We agree with Bliese and Jex (2002) that while individual level studies can be appropriate, multilevel modelling studies enhance examination of work and family relationships through the control of error terms inherent in nested data when relevant for the research question of interest (Bliese and Jex 2002; Chan 1998, 2005; George and James 1994; Klein, Dansereau, and Hall 1994).

Third, relatively little management research has been conducted integrating shared workgroup conditions of job strain and work-family support (see Bhave, Kramer, and Glomb 2010, for an exception). We contend that work-family social support (Kossek et al. 2011), contextual job conditions, and social relations among employees can vary widely between departments within a single organization to create work-family subcultures. Although research on job stress has argued that the social-psychological job demands and resources in the workgroup can create a context that may ameliorate or engender occupational health stressors (Bliese and Jex 2002), more empirical and theoretical attempts are valuable to extend these ideas to the work-family interface. The notion of group work-family subcultures or microclimates has been under-explored.

A further contribution is our addition to the recent and growing

literature on FSSB, defined as employee perceptions of behaviors exhibited by supervisors that are supportive of families (Hammer et al. 2009). FSSB is a construct of growing importance for numerous reasons. First, although general social support often exerts positive effects on employee attitudes and behaviors, FSSB not only adds incremental variance but also exerts stronger effects on attitudes and behaviors related to the work-family interface (Hammer et al. 2009; Kossek et al. 2011). In relation to this and consistent with the recognition of the importance of extending work-family research to all populations, including single individuals and those without immediate family responsibilities (e.g. Casper, Weltman, and Kwesiga 2007; Wilson and Baumann 2015), we show that FSSB perceptions can function as a resource for all employees. We contend that FSSB should not be limited solely to those who are married or have caregiving responsibilities and that broadening support for the non-work lives of all workers provides greater equity and prevents workplace backlash (Hammer et al. 2011). Methodologically, we add to the FSSB literature by addressing the nested influence of workgroup characteristics as an antecedent and expand the range of FSSB-related outcomes by jointly assessing outcomes related to both health (sleep quality) and work role safety performance (compliance, participation).

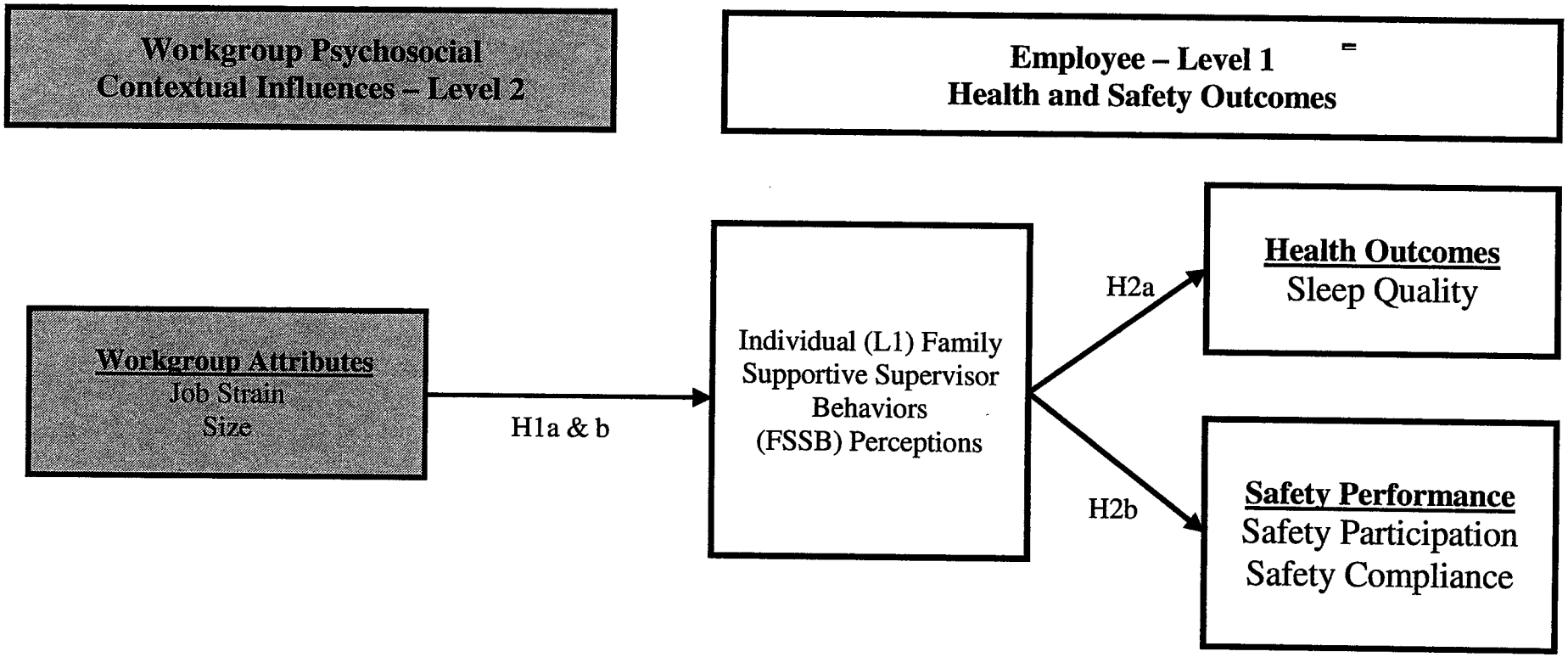
Multilevel Model of Workgroup Work-family Psychosocial Context

Drawing from research on psychosocial work environments and occupational health (Johnson and Hall 1996; Karasek 1979), we argue that workgroup characteristics will affect individual perceptions of FSSB. Using a nested design, the model in Figure 3.1 is based on a multilevel contextual perspective: we assume that FSSB perceptions are not only influenced at the individual level (e.g., individual-based family supportive organization perceptions) but also by the context (i.e., the workgroup environment as shaped by co-workers) within which the individual works. Employees are embedded in workgroups with varying job demands and family supportive supervisory environments. These micro-contexts create diverse cross-level work-family psychosocial environments. We propose a multistage multilevel model where the workgroup context (i.e., workgroup job strain and workgroup size) impact individual-level FSSB perceptions. These, in turn, influence health (sleep) and safety outcomes (see Figure 3.1).

Overall, the model is grounded in two complementary theoretical bases to explain how and why group social context is likely to shape FSSB

perceptions. The first basis is derived from social information processing SIP theory of the task environment (Griffin, 1983). Bhave and colleagues (2010) applied SIP theory as the main theoretical rationale for a study of the relationship between group-level perceptions of work-family conflict and individual work-family conflict. Group social collective psychological structures have been shown to socially influence individual perceptions of the work environment (Salancik and Pfeffer 1978). Workers' perceptions of job demands, family support, and how they are treated by co-workers all occur in a social context, which provides the stimuli that help them make sense of their work environment (Bhave et al. 2010). This social processing of work contextual cues may occur in a retrospective fashion, such that an individual will attribute a psychosocial cause (a workgroup characteristic) to an effect (the perception of a family supportive behaviour from the supervisor) after the effect has occurred.

Figure 3.1 An Integrative Model of Workgroup Psychosocial Contextual Resources Shaping FSSB Perceptions: Antecedents and Linkages to Health, Safety, and Performance



The SIP perspective is consistent with research on psychosocial work environments, which addresses the ways in which context shapes how individuals experience workgroup level job demands and the resources available (Karasek 1979). Hammer and colleagues' (2004) research on psychosocial work environments holds that in organizations, negotiated social and interpersonal interactions occur between co-workers, workgroup members, and workgroup supervisors and employees. Although they studied organizational level norms, Hammer and colleagues' research is applicable to our study of strain in workgroups. Workgroup norms surrounding social perceptions of job strain are likely to create a common view of the work context, shape an individual's perceptions of support for personal life, and ultimately health and safety attitudes and behaviors. For example, individuals in workgroups where members find jobs to be more stressful or demanding are likely to experience lower positive perceptions of the climate for work and family (Kossek, Colquitt, and Noe 2001).

In our model, SIP links the workgroup antecedents to FSSB. Our second theoretical base – the broaden-and-build theory of positive emotions (Fredrickson 2001) – specifies the direction of the hypothesized relationships and also links FSSB to the proposed outcomes. Broaden-and-build theory argues that when people experience positive emotions, their cognitive and behavioural repertoires (also referred to as thought-action repertoires) are enhanced (Fredrickson 1998). These enhanced repertoires build personal resources, which include physical, intellectual, social, and psychological resources. In turn, these enhanced resources lead to positive behavior, such as attending to safety rules and health outcomes such as sleep. At the same time, negative emotions can narrow these thought-action repertoires (Fredrickson and & Branigan 2005), thereby hindering those outcomes.

Applying broaden-and-build theory to the work-family interface, Carlson, Ferguson, Kacmar, Grzywacz, and Whitten (2011) found supervisor work-family enrichment positively influenced subordinate perceptions of schedule control. This fostered subordinate work-family enrichment and led to improvements in job performance. In our model, we apply broaden-and-build theory to the work-family literature, extending the work of Carlson and colleagues by considering both positive and negative influences. Broaden-and-build theory tends to have a mainly positive focus though it can consider negative emotions. Such an approach is consistent with theories focusing on resource depletion – including Hobfoll's conservation of resources theory (Hobfoll 1989) and the job demands-resources model (Bakker and Demerouti 2007;

Demerouti et al. 1979) – which are complementary perspectives augmenting our theorizing.

Model overview. As shown in Figure 3.1, the first portion of the model specifies that the workgroup context relates to FSSB perceptions. Within the broaden-and-build framework, we view FSSB as the psychological resource that is shaped by its psychosocial antecedents, either positively or negatively (via workgroup strain and size). The second portion of this model proposes that greater perceptions of FSSB will relate to employee health (in this case sleep quality) and safety performance. Again, supported by the broaden-and-build perspective, higher levels of FSSB perceptions are proposed to result in improved thoughts and actions, which is why our hypothesized relationships are in the positive direction. Below we explain each model pathway in greater detail.

Hypotheses

Workgroup Influences on FSSB

Workgroup job strain. In one of the few work-family studies focused on group-level work-family conflict, Bhave and colleagues (2010) took an SIP perspective to argue that work group members could exert a social influence on their teammates to reach a shared level of understanding about perceptions of work-family conflict. Similarly, we suggest that just as workgroup members may influence individual member perceptions of work-family conflict, so too might they influence individual member perceptions of job strain. Job demands-resources theory (Bakker and Demerouti 2007) complements the SIP perspective by suggesting that high levels of job demands coupled with a lack of resources ultimately result in negative outcomes such as strain and emotional fatigue — which then reverberate through the individual's life affecting other areas. At the workgroup level, higher overall levels of workgroup job strain result in increased job demands on the individual. Individuals may need to contribute more to the group, which thus results in elevated job strain for the individual (Karasek, Triantis, and Chaudhry 1982). The processes of work contagion (Westman, 2001) may also occur, as co-workers' negative comments about job strain carry over emotionally to other co-workers and become processed as negative social information (Salancik and Pfeffer 1978).

Unlike these previous studies, however, we extend the literature by shifting our focus to a positive outcome – FSSB – which has been correlated with lower levels of perceived stress and greater control over

work hours (Hammer et al. 2013). SIP suggests that "attitudes may be the result of memory-based processing, i.e., derived from the recall of previously formed perceptions" (Zalesny and Ford 1990, 231). Therefore, as individuals process different social cues – including perceptions of workgroup strain – they will subsequently form attitudes. Here we argue that perceptions of workgroup strain create a work-family subculture that will influence individual's level of FSSB perceptions:

> Hypothesis 1a: Workgroup average levels of job strain are related to individual perceptions of FSSB, such that individuals in workgroups that perceive higher average levels of job strain report lower levels of FSSB.

Workgroup size. The second workgroup-level influence we expect to find on FSSB is the size of the workgroup. Dutton and Ashford (1993) note that managers have limited time and attention to devote to the myriad of issues they face and must decide how – and where – to allocate their time and attention. Work-family issues are one of the many factors that compete for managerial attention, and leaders vary in the degree to which they notice and interpret work-family issues within the organization (Milliken, Martins, and Morgan 1998).

Managers in larger workgroups will have more subordinates competing for their time and attention. Qualitatively, Hammer, Kossek, Zimmerman, and Daniels (2007) identified understanding an employee's home life situation as one aspect of a family supportive supervisor behavior. Yet the ability to do this – and enact other aspects of family supportive behaviors – requires an amount of individualized consideration that will be hindered as the size of the workgroup (and the various and unique work-family needs of the employees within the workgroup) grows. As a result, it will be more difficult for a supervisor to become aware of these work-family issues. In turn, a supervisor will have less of an ability to devote attention to restructuring work for an employee to facilitate effectiveness. From the employee's vantage point, the SIP perspective would consider the size of the work group – a salient characteristic – as an influence that would lead the employee to form perceptions of lower supervisor family supportive behaviors.

> Hypothesis 1b: Workgroup size is related to individual-level perceptions of FSSB, such that individuals in larger workgroups perceive lower levels of FSSB.

Employee Health and Safety Performance

Researchers have examined the link between the work-family interface and health outcomes, including the link between conflict in the work-family interface and negative health consequences (Allen and Armstrong 2006). However, the immediate outcomes associated with FSSB generally focus on outcomes such as job satisfaction, turnover intentions (Hammer et al. 2009; 2011), and mental health and performance (Kossek et al. 2016). As a result, the relationship between FSSB, and sleep and safety performance remains understudied.

FSSB and sleep. Sleep is a very important indicator of health as past research has demonstrated a strong link between sleep and both psychological and physical health outcomes (Krauss et al. 2003; Wagner, Barnes, and Scott 2014). Regarding the work-family interface, Williams, Franche, Ibrahim, Mustard, and Layton (2006) examined the relationship between work-family spillover and sleep, finding that positive family-to-work spillover was related to better sleep quality. Geurts, Rutte, and Peeters (1999) found a positive relationship between work-family conflict and self-report sleep deprivation. Family supportive supervisors are likely to have more respect for their employees' work and home boundaries, particularly at night-time. Thereby, we seek to extend recent findings of a correlational relationship between the FSSB and sleep outcomes at the individual level using a (Aguinis and Adams 1998) sample of health care workers (see Crain et al. 2014). Nevertheless, a relationship between FSSB and sleep outcomes at the multivariate level has not yet been found.

Despite these mixed findings, the given results from broaden-and-build theory have documented that positive health-related outcomes resulted from increased thought-action repertoires. Based on this limited evidence, we expect to find a positive link between FSSB and employee sleep quality as a proxy for health.

> Hypothesis 2a: Employee perceptions of FSSB are related to employee health outcomes such that employees who perceive higher levels of FSSB have higher sleep quality.

FSSB and safety performance. Scholars have drawn upon social support theories to argue that employees tend to reciprocate FSSB by exhibiting increased levels of both task and contextual role adherence. Safety attitudes and behaviors are examples of a work role encompassing both task in role performance (following safety rules) and extra role performance (monitoring and adjusting behaviors to enhance a safety climate). Recent studies have demonstrated a positive relationship between

FSSB and performance perceptions, including task and contextual performance (Bagger and Li 2014; Mills et al. 2014; Odle-Dusseau, Britt, and Greene-Shortridge 2012).

The importance of safety performance has been well documented in the occupational health literature (Ford and Tetrick 2011). Specifically, we measure safety compliance and safety participation as indicators of safety performance. Although studies have shown a relationship between participation in a work-family intervention and safety compliance and extra role behaviors (Hammer et al. 2015), to our knowledge, no study has specifically found a relationship between FSSB and safety-related outcomes even though it is important to examine these types of self-management behaviors. Safety compliance refers to core behaviors all employees need to carry out in order to maintain a safe working environment (Griffin and Neal 2000). Cullen and Hammer (2007) demonstrated in a study of nurses that family-to-work conflict related to safety compliance. Hypothesizing that work-family conflict reduces cognitive resources, Cullen and Hammer (2007) showed that higher levels of family-to-work conflict were related to decreased levels of safety compliance. According to Griffin and Neal (2000), safety participation refers to all discretionary behaviors that contribute to the safety of the organizational context in which employees must work such as volunteering to participate in safety activities, helping co-workers, attending safety meetings, and communicating to co-workers when witnessing incidents of unintentional noncompliance with the safety protocol.

Our hypotheses are also supported by the broaden-and-build perspective such that FSSB is expected to expand employees' thought-action repertoires. A positive consequence will be an increase in attention and energy directed toward safety activities, including both on-task activities (e.g., following safety protocols, enacting safety behaviors) and off-task behaviors (e.g., loss of focus). Based on the research reviewed above, we hypothesize the following:

> Hypothesis 2b: Employee perceptions of FSSB are related to employee safety performance, such that employees who perceive higher levels of FSSB have higher levels of safety participation, and safety compliance.

Methods

Sample

Study participants were current employees of a large grocery store chain that operates roughly 100 locations in the Midwestern United States.

Participants were drawn from three geographic locations representing rural and urban locales. Data collection occurred in four stores in each of the three geographic areas for a total of 12 stores. Eligible participants were adults who had worked in the company for at least two months prior to survey administration. In total 271 non-managerial employees participated in the study. The sample was about three-fourths female (71.5%), mostly White (92.6%), middle aged (36.9 years), with children (average of 1.6) working nearly full time 31.3 hours with an organizational tenure of 7.0 years. Two thirds of the sample had a family income of less than $40,000 (2/5 were less than $25,000) qualifying them as low-income (Cauthen and Fass 2008).

Procedure

Participants were recruited by trained members of the research team that entered the stores and offered employees an opportunity to participate in a "work stress research project conducted by university researchers." It was emphasized to participants that the research project confidentiality would be strictly maintained, for privacy protection from their employer. Employees who agreed to participate were scheduled for a face-to-face conducted survey type interview with a member of the research team. Informed consent was obtained and the interview was conducted in a private location within the store (e.g., an empty office or conference room). Interviews lasted between 35-50 minutes on average and respondents were offered a $25 incentive for participating in the study.

Measures

Following our model, the level-2 measures involving the workgroup are listed first, followed by the individual level variables. For all measures, higher scores indicate greater amounts of each construct.

Workgroup Measures (level-2)

Workgroup Job Strain. Workgroup job strain was assessed by combining the job strain scores of each individual in the workgroup into a single workgroup-level score for an arithmetic average. This was computed only after checking for significant between-group variance in workgroup job strain, which was confirmed via HLM analysis — ICC (1) = .1092, $\chi 2[60] = 119.98$, $p < .001$. Individual-level job strain was measured by using the Psychological Demands subscale of the three-dimensional Job Strain scale

created by Karasek (1979). The scale is a 5-item scale using a 4-point response format with 1 = strongly disagree to 4 = strongly agree. A sample item from this scale is, "I am not asked to do an excessive amount of work." Items were reverse scored so that higher values indicate greater psychological demands. Reliability was 0.70.

Workgroup Size. Workgroup size is the sum of the total number of employee members of the workgroups, which was calculated by looking at the number of subordinates "nested" under each supervisor. The average workgroup size was 9.37, with a standard deviation of 5.98.

Control Variables. The first control variable was store performance, which was a dichotomous variable (coded 0 = low performing, 1 = high performing) based upon several years of financial performance of each store obtained from company records. The second control variable was store chain, which was a dummy variable representing which of three different grocery store chains that the store operated under. There were two store chain indicator variables (with the third chain being the "base case"). Gender for the supervisor was included as a control variable (male = 0 and female = 1).

Individual Measures (level-1)

Family Supportive Supervisor Behaviors (FSSB). Employee perceptions of FSSB were assessed with a uni-dimensional 14-item scale (Hammer et al. 2009). A sample item is, "My supervisor takes the time to learn about my personal needs." A 1-5 "strongly disagree" to "strongly agree" response scale was used. Reliability was 0.95.

Employee Sleep Quality. Sleep quality was assessed using a modified version of the sleep quality component of the Pittsburgh Sleep Quality Index (Buysseet al.1989). One item is, "During the past 2 weeks, how would you rate your sleep quality during the week?" The item had a scale ranging from 1 to 4, with anchors of 1 = poor and 4 = excellent. The second item, with the same scale anchors is, "During the past 2 weeks, how would you rate your sleep quality on the weekend days?" We then combined those two items into a single variable by weighting the workday sleep quality 5/7 of the weight (because there are five workdays out of 7 days in a week) and the non-workday sleep quality 2/7 of the weight (2 non-work days out of the week). This computed score represents the person's Total Sleep Quality with a reliability of 0.87.

Employee Safety Compliance. Safety compliance was measured by the four-item compliance subscale of the Safety Participation and Compliance scale (Neal, Griffin, and Hart 2000). A sample item is, "I voluntarily carry out tasks or activities that help to improve workplace safety." The measure

exists on a 5-point scale, with the anchors of 1 = strongly disagree to 5 = strongly agree. The alpha reliability for the scale was 0.88.

Employee Safety Participation. Safety participation was measured by the 3-item Participation subscale of the Safety Participation and Compliance scale (Neal et al. 2000). A sample item is, "I promote the safety program of the organization." The measure used a 5-point scale, with the anchors of 1= strongly disagree to 5= strongly agree with a reliability of 0.74.

Multi-level Work-Family Analyses

Because data were nested (i.e., employees were nested under supervisors), hypotheses were tested using hierarchical linear modeling (HLM) (Raudenbush and Bryk 2002). HLM allows for simultaneous analysis of within- and between-group variance, allowing for the examination of higher level units on lower level outcomes while maintaining the appropriate level of analysis (Hofmann 1997) along with more accurate examination of lower level units on lower level outcomes via random effects models (i.e., additional estimation of group-level error variances). Consequently, one is able to simultaneously estimate multilevel parameters without sample size distorting the results, as characteristically occurs with OLS methods.

Following procedures proposed by HLM researchers (Hofmann 1997; Hofmann, Griffin, and Gavin 2000; Raudenbush and Bryk 2002), we included a preliminary step for all HLM relationships not shown in our result tables. Specifically, we tested null models (i.e., ANOVA models) with no predictor variables to ensure systematic between-group variance, as this is a necessary condition for subsequent HLM models. All psychological constructs (e.g., workgroup job strain) were grand mean centered, while all demographic and coded variables were raw-score centered (e.g., workgroup size). Though grand mean and raw-score centering procedures produce similar results, it is important to provide meaningful interpretation of our model parameters (Enders and Tofighi 2007; Raudenbush and Bryk 2002). Finally, random-coefficients regression models were conducted to test hypotheses at level-1 (e.g., employee perceptions of FSSB to employee sleep) and means-as-outcomes regressions were conducted to test cross-level hypotheses from level-2 to level-1 (e.g., workgroup job strain to employee perceptions of FSSB).

Results

Table 3.1 presents the descriptive statistics and correlation matrix for the variables at the workgroup level (level-2). Table 3.2 presents the

descriptive statistics and correlation matrix for the variables at the employee level (level-1). However, due to the nested nature of organizational data, the correlations presented in Table 3.2 do not take into account non-independence within the data and therefore should be interpreted cautiously when between-group variance is significant

Table 3.1 Descriptive Statistics for Level-2 Workgroup Variables

Level-2 Variables	M	SD	
Workgroup Size	9.37	5.98	
Work Group Job Strain	2.72	0.28	-.22

Note: *N* ranged from 59 - 61.
[a] Workgroup is conceptualized as a level-2 variable and is reported here as an aggregate.
* $p < .05$

Table 3.2 Descriptive Statistics for Level-1 Subordinate Variables

Level-1 Variables	M	SD	1	2	3	4
Subordinate Variables						
1 Psychological Job Strain (Work Group)	0.00	0.36				
2 FSSB	3.45	0.70	.28**			
3 Sleep Quality	2.51	0.83	.20**	.14*		
4 Safety Participation	3.93	0.55	-.19**	.14*	-.02	
5 Safety Compliance	4.14	0.51	-.13*	-.12*	.00	.57**

Note: *N* ranged from 151 - 271. FSSB = family supportive supervisory behaviors.
* $p < 0.05$, ** $p < 0.01$

Table 3.3 Analyses of Associate-Level and Work Group-Level Predictors of Associate-Level FSSB Perceptions (Hypotheses 1a – 1b)

Fixed Effects	**Estimate (SE)**	**Test Statistic (p-value)**
Intercept	5.62* (0.49)	11.50 (< .001)
Associate (Work Group) Job Strain (control)	-0.37* (0.10)	-3.54 (< .001)
Average Work Group Job Strain	-0.76* (0.16)	-4.85 (< .001)
Work Group Size	-0.03* (0.01)	-2.42 (.02)
Chain #1 Indicator	0.06 (0.16)	0.39 (.70)
Chain #2 Indicator	-0.08 (0.12)	-0.63 (.53)
Store Performance Indicator	0.10 (0.11)	0.93 (.36)
Random Effect	**Estimate (SE)**	**Test Statistic (p-value)**
Residual	0.37* (0.04)	10.65 (< .001)
Variance in Intercepts	0.05* (.03)	1.96 (.03)

Notes: * $p < 0.05$.
Increase in model fit relative to model with only chain and performance indicators, $\chi^2(3) = 35.82$, $p < 0.001$, within work group (Level 1) pseudo-$R^2 = .11$ reduction in variance in the residual and between work group (Level 2) pseudo-$R^2 = .23$ reduction in variance in the intercepts.

Hypotheses 1a-b: Workgroup Influences on FSSB

As shown in Table 3.3, Hypotheses 1a and 1b were fully supported. After entering our control variables and individual-level psychological job strain, mean workgroup psychological job strain was significantly related to individual FSSB perceptions ($\gamma = -0.76$, $p < 0.01$) in that supervisors who managed workgroups with members experiencing higher levels of psychological job strain were rated as less family supportive. After entering our control variables, workgroup size was significantly related ($\gamma = -0.03$, $p < .05$) to individual FSSB perceptions in that supervisors who managed larger workgroups were rated as being less family supportive.

Hypothesis 2a-b: Health and Safety Outcomes

As shown in Table 3.4, Hypothesis 2a was supported. Individual FSSB perceptions were significantly related to employee sleep quality ($\beta = 0.16$, $p < 0.05$), in that employees who perceived their supervisors to be more family supportive had better overall sleep quality (during both the week and

weekend).

Hypothesis 2b was supported. Individual FSSB perceptions were significantly positively related to employee safety performance in both participation ($\beta = 0.11$, $p < 0.01$) and safety compliance ($\beta = 0.09$, $p = 0.05$). Employees who perceived their supervisors to be more family supportive showed significantly greater levels of participation and compliance with company safety programs.

Table 3.4 Analyses of Individual-level FSSB Perceptions and Health (Sleep) and Safety Outcomes (Hypotheses 2a & 2b)

	Employee Sleep Quality		Employee Safety Participation		Employee Safety Compliance	
	β	*t*	β	*t*	β	*t*
H2a (Health) *Level 1 predictor*						
Intercept	1.94	6.58**				
FSSB	0.16	2.28*				
	$R^2 = .02$					
H2b (Safety) *Level 1 predictor*						
Intercept			3.60	19.11**	3.87	21.62**
FSSB			0.11	2.46**	0.09	1.98*
			$R^2 = .10$		$R^2 = .05$	

Note: * $p < 0.05$, ** $p < 0.01$

Discussion

This study is one of the first empirical projects to incorporate a multilevel framework that examines group-level antecedents of individual perceptions of leader family supportive behaviors. We show that employees' work-family experiences are nested in and shaped by their

psychosocial environments, creating work-family subcultures or micro-climates in organizations. Yet much of the work-family literature continues to overlook these nested psychosocial aspects when addressing work-family perceptions of supervisor support. This paper adds to work-family theory by exploring these workgroup contexts and their effects on individual perceptions of FSSB. We also add some examples of measures that might be used to empirically capture determinants of work-family subcultures- namely group job strain and size.

While we know that individual co-worker support (Thompson and Prottas 2006) should matter for employee well-being, the findings on group level job strain and size are important extensions. Employees nested in workgroups that are larger and where there is a higher average level of strain –are more likely to perceive lower psychosocial work-family resources and may be less likely to perceive positive supervisory family support. Relationships between co-workers and supervisors are undergoing transformation as spans of control are increasing, job strains rise, and understaffing increases. We show empirically that co-workers' shared social perceptions of higher job strain and group size are negative ambient stimuli on employees' perceptions of family supportive leader behaviors. In these high job strain contexts, the employment relationship between workers and their organization may be increasingly fragile and interventions are needed to improve FSSB. Future research should also develop initiatives to reduce group levels of job strain and span of control, which are likely to increase FSSB and improve sleep and safety.

Our paper is one of the first to show linkages between FSSB and employee safety participation and compliance and sleep quality. Safety performance and sleep measures need further attention in the work-family research. A focus on these outcomes may better link work-family research to productivity measures that supervisors and organizations see as critical for organizational effectiveness.

Overall, this study shows that while organizations may socialize leaders to be supportive or adopt work-family policies formally, group level effects from co-workers help create the social environments through which employees perceive family supportiveness. Organizational change and interventions at the workgroup and leader level of analysis demand more work-family research and policy innovation in order to enable society to truly improve the work environment for a more positive work-family social context.

References

Aguinis, Herman., Susan K. Adams, "Social-Role versus Structural Models of Gender and Influence Use in Organizations." *Group & Organization Management* 23, no, 4 (1998): 414-46.

Aguinis, Herman, Brian Boyd, Charles Pierce, and Jeremy Short. "Walking New Avenues in Management Research Methods and Theories: Bridging Micro and Macro Domains." *Journal of Management* 37, no. 2 (2011): 395-403.

Allen, Tammy and Jeremy Armstrong. "Further Examination of the Link between Work-Family Conflict and Physical Health: The Role Of Health-Related Behaviors." *The American Behavioral Scientist* 49, no. 9 (2006): 1204-1221.

Bagger, Jessica and Andrew Li. "How Does Supervisory Family Support Influence Employees' Attitudes and Behaviors? A Social Exchange Perspective." *Journal of Management* 40 no. 4 (2014): 1123-1150.

Bakker, Arnold and Evangelica Demerouti. "The Job Demands-Resources Model: State Of The Art." *Journal of Managerial Psychology* 22, no. 3: (2007): 309-328.

Bhave, Devasheesh, Amit Kramer and Theresa Glomb. "Work Family Conflict in Work Groups: Social Information Processing, Support, and Demographic Dissimilarity. *Journal of Applied Psychology* 95 no. 1 (2010): 145-158.

Bliese, Paul, D. and Steve M. Jex. "Incorporating a Multi-Level Perspective into Occupational Stress Research: Theoretical, Methodological, and Practical Implications." *Journal of Occupational Health Psychology* 7 no. 3 (2002): 265-276.

Buysse, Daniel, J., Charles F. Reynolds, Timothy H., Monk, Susan R. Berman, and David J. Kupfer. "The Pittsburgh Sleep Quality Index: A New Instrument for Psychiatric Practice and Research." *Psychiatry Research* 28 (1989): 193-213.

Carlson, Dawn. S. Meridith Ferguson, Michelle K. Kacmar, and Joseph G. Grzywacz, and Dwayne Whitten. "Pay It Forward: The Positive Crossover Effects of Supervisor Work—Family Enrichment." *Journal of Management* 37 no. 3: (2011) 770-789.

Casper, Wendy J., Lillian Eby, Christopher Bordeaux, Angie Lockwood, and Dawn Lambert. "A Review of Research Methods in IO/OB Work-Family Research." *Journal of Applied Psychology* 92 no. 1 (2007): 28-43.

Casper, Wendy J., David Weltman, D. and Eileen Kwesiga, E. "Beyond Family-Friendly: The Construct And Measurement of Singles-Friendly

Work Culture." *Journal of Vocational Behavior* 70 no. 3 (2007): 478-501.

Cauthen, Nancy and Sarah Fass, *Measuring Poverty in the United States." National Center for Children in Poverty.* (2008): Accessed on November 12, 2014: http://research.policyarchive.org/11236.pdf

Chan, David. "Functional Relations Among Constructs in the Same Content Domain at Different Levels of Analysis: A Typology of Composition Models." *Journal of Applied Psychology* 83 no. 2 (1998) 234-246.

—. "Multilevel Research." In *The Psychology Research Handbook*: (2nd ed.), edited by Fred. T. L. Leong & James T. Austin, 401-418. Thousand Oaks, CA: Sage, 2005.

Cary L. Cooper, Phillip, J. Dewe, and Michael P. O'Driscoll. *Organizational Stress: A Review and Critique of Theory, Research, and Applications*. Thousand Oaks, CA: Sage. 2001.

Crain, Tori L., Leslie Hammer, Todd Bodner, Ellen E. Kossek, Phyllis, Moen, Richard Lilienthal, and Orfeu M. Buxton. "Work–Family Conflict, Family-Supportive Supervisor Behaviors (FSSB), and Sleep Outcomes." *Journal of Occupational Health Psychology* 19 no. 2 (2014): 155-167.

Cullen, Jennifer C., and Leslie B. Hammer. "Developing and Testing a Theoretical Model Linking Work-Family Conflict to Employee Safety." *Journal of Occupational Health Psychology*, 12 no. 3 (2007): 266-278.

Demerouti, Evangelica, Arnold Bakker, Friedhelm Nachreiner, and William Schaufel. "The Job Demands-Resources Model of Burnout." *Journal of Applied Psychology* 86 no. 3 (2001), 499-512.

Diez-Roux, Ana. "Bringing Context Back into Epidemiology: Variables and Fallacies in Multilevel Analyses. *American Journal of Public Health*, 88 no. 2 (1998): 216–222.

Dutton, Jane E. and Susan J. Ashford, S. J. 1993). Selling Issues to Top Management. *Academy of Management Review* 18 no. 3 (1993): 397-428.

Eby, Lillian T., Wendy J. Casper, Angie Lockwood, Christopher, Bordeaux, and Andi Brinley. "Work and Family Research in IOOB: Content Analysis and Review of the Literature (1980-2002)." *Journal of Vocational Behavior* 66 no. 1 (2003): 124-197.

Enders, Craig K. and Davood Tofighi. "Centering Predictor Variables in Cross-Sectional Multilevel Models: A New Look at an Old Issue." *Psychological Methods* 12 no. 2 (2007): 121-138.

Ford, Michael T., and Lois E. Tetrick. "Relations among Occupational

Hazards, Attitudes, and Safety Performance." *Journal of Occupational Health Psychology* 16, no. 1 (2011): 48-66.

Fredrickson, Barbara L. "What Good Are Positive Emotions?" *Review of General Psychology* 2 no. 3 (1998): 300-319.

—. "The Role of Positive Emotions in Positive Psychology: The Broaden-and-Build Theory of Positive Emotions." *American Psychologist* 56 no. 3 (2001): 218-226.

Fredrickson, Barbara L. and Christine Branigan. "Positive Emotions Broaden the Scope of Attention and Thought-Action Repertoires." *Cognition & Emotion* 19 no. 3 (2005): 313-332.

George, Jennifer M., and Larry R. James. "Levels issues in Theory Development." *Academy of Management Review* 19 (1994): 636-640.

Griffin, Mark A., and Andrew Neal." Perceptions of Safety at Work: A Framework for Linking Safety Climate to Safety Performance, Knowledge, and Motivation." *Journal of Occupational Health Psychology*, 5 no. 3 (2000): 347-358.

Griffin, Ricky W. "The Objective and Social Sources of Information and Task Redesign: A Field Experiment." *Administrative Science Quarterly*, 28 no. 2 (1983): 184-200.

Geurts, Sabine, Christel, Rutt and Maria Peeters. "Antecedents and Consequences of Work-Home Interference Among Medical Residents." *Social Science & Medicine* 48 no. 9 (1999): 1135-1148.

Hammer, Leslie B., Ryan C. Johnson, Tori. C. Crain, Todd Bodner, Ellen E. Kossek, Kelly D. Davis, Erin L. Kelly, Orfeu M. Buxton, Georgia Karuntzos, L. Casey Chosewood, and Lisa Berkman. "Intervention Effects on Safety Compliance and Organizational Citizenship Behaviors: Evidence from the Work, Family, and Health Study." *Journal of Applied Psychology* 101 no. 2: (2015): 190-208.

Hammer, Leslie B., Ellen E. Kossek, Kent W. Anger, W. K., Todd Bodner, and Kristi L. Zimmerman. "Clarifying Work–Family Intervention Processes: The Roles of Work–Family Conflict and Family-Supportive Supervisor Behaviors." *Journal of Applied Psychology* 96 no. 1 (2011): 134-150.

Hammer, Leslie B., Ellen E. Kossek, Todd Bodner, and Tori Crain. "Measurement Development and Validation of the Family Supportive Supervisor Behavior Short-Form (FSSB-SF)." *Journal of Occupational Health Psychology* 18 no. 3 (2013): 285-296.

Hammer, L. B., Ellen E. Kossek, Nan Yragui, Todd Bodner, and Ginger Hansen. "Development and Validation of a Multidimensional Measure of Family Supportive Supervisor Behaviors (FSSB)." *Journal of Management* 35 no. 4 (2009): 837-56.

Hammer, Leslie B., Ellen E. Kossek, Kristi Zimmerman, K., and Rachel Daniels, R. "Clarifying The Construct of Family-Supportive Supervisory Behaviors (FSSB): A Multilevel Perspective." In *Exploring the Work and Non-Work Interface*, edited by Pamela L. Perrewé and Daniel C. Ganster, 165-204, US: Elsevier Science/JAI Press, 2007.

Hammer, Tove H., Per Oystein Saksvik, Kjell Nytrø, Hans Torvatn, and Mahmut Bayazit. "Expanding the Psychosocial Work Environment: Workplace Norms and Work-Family Conflict as Correlates of Stress and Health." *Journal of Occupational Health Psychology* 9 no. 1 (2004): 83-97.

Hobfoll, Steven. E. "Conservation of Resources: A New Attempt at Conceptualizing Stress." *American Psychologist* 44 no 3 (1989): 513-524.

Hofmann, David A. "An Overview of the Logic and Rationale of Hierarchical Linear Models." *Journal of Management* 23, no. 6 (1997): 723-744.

Hofmann, David. A., Mark A. Griffin and Mark B. Gavin. "The Application of Hierarchical Linear Modeling to Organizational Research" in *Multilevel Theory, Research, and Methods in Organizations*, edited by Katherine J. Klein & Steven W. Kozlowski 467-511, San Francisco, CA: Jossey-Bass, Inc., 2000.

Johnson, Jeffrey V., and Ellen M. Hall. "Dialectic between Conceptual and Causal Inquiry in Psychosocial Work Environment Research." *Journal of Occupational Health Psychology*, 1 no. 4 (1996): 362–374.

Karasek, Robert A. Job Demands, Job Control and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly* 24 no. 2 (1979): 285-308.

Karasek, Robert A. Konstantinos Triantis and Sohail S.,Chaudhry. "Coworker and Supervisor Support as Moderators of Associations between Task Characteristics and MentalStrain." *Journal of Organizational Behavior* 3 no. 2 (1982): 181-200.

Klein, Katherin J., Dansereau, Fred and Rosalie. J. Hall. "Levels Issues in Theory Development, Data Collection and Analysis." *Academy of Management Review* 19 no. 2 (1994): 195-229.

Kossek, Ellen E., Jason Colquitt and Ray Noe. "Caregiving Decisions, Well-Being and Performance: The Effects of Place and Provider as a Function of Dependent Type and Work-Family Climates." *Academy of Management Journal* 44 no. 1 (2001): 29-44

Kossek, Ellen Ernst and Susan Lambert. *Work and Life Integration: Organizational, Cultural, and Individual perspectives*. Mahwah, NJ:

Lawrence Erlbaum Associates, 2005.

Krauss, Autumn, Peter Chen, P., Sarah DeArmond, and Bill Moorcroft "Sleepiness in the Workplace: Causes, Consequences, and Countermeasures" in *International Review of I/O Psychology* edited by Cary L. Cooper, Ivan T. Robertson, 81-129, 18, 2003.

Mathieu, J. E., & Gilad Chen. "The Etiology of the Multilevel Paradigm in Management Research." *Journal of Management*, 37 no. 2 (2011): 610-641.

Milliken, Frances J., Luis L. Martins, and Hal Morgan "Explaining Organizational Responsiveness to Work-Family Issues: The Role of Human Resource Executives as Issue Interpreters." *Academy of Management Journal* 41 no. 5 (1998): 580-592.

Mills, Maura J., Russell A. Matthews, Jaime B. Henning and Vivian A. Woo. "Family-Supportive Organizations and Supervisors: How Do They Influence Employee Outcomes and for Whom?." *The International Journal of Human Resource Management* 25 no. 12 (2014): 1763-1785.

Neal, Andrew, Mark A. Griffin, Peter M. Hart. "The Impact of Organizational Climate on Safety Climate and Individual Behavior." *Safety Science* 34 no. 1 (2000): 99-109.

Odle-Dusseau, Heather N., Thomas W. Britt, and Tiffany M. Greene-Shortridge. "Organizational Work–Family resources as Predictors of Job Performance and Attitudes: The Process of Work–family Conflict and Enrichment." *Journal of Occupational Health Psychology* 17 no. 1 (2012): 28-40.

Raudenbush, Steve W., and A Bryk, *Hierarchical Linear Models: Application and Data Analysis Methods* (2nd ed.). Newbury Park: Sage, 2002.

Rousseau, Denise. "Characteristics of Departments, Positions, and Individuals: Contexts for Attitudes and Behavior." *Administrative Science Quarterly* 23 no. 4 (1978): 521- 540.

Rousseau, Denise M. "Reinforcing the Micro/Macro Bridge: "Organizational Thinking and Pluralistic Vehicles." *Journal of Management* 37 no. 2 (2011): 429-442.

Salancik, Gerald R.,and Jeff Pfeffer. "A Social Information Processing Approach to Job Attitudes and Task Design." *Administrative Science Quarterly* 23 no. 2 (1978): 224–253.

Theorell, Tores and Robert A. Karasek, R. "Current Issues Relating to Job Strain and Cardiovascular Disease Research." *Journal of Occupational Health Psychology* 1 no. 1 (1996): 9-26.

Thompson, Cynthia A., and David J. Prottas. "Relationships Among

Organizational Family Support, Job Autonomy, Perceived Control, and Employee Well-being. *Journal of Occupational Health Psychology* 11 no. 1 (2006): 100-118.

Wagner, David T., Christopher M. Barnes and Brent A. Scott. "Driving it Home: How Workplace Emotional Labor Harms Employee Home Life." *Personnel Psychology* 67 no. 2 (2014): 487-516.

Ware, John. E., Mark E., Kosinski, James E. Dewey., and Barbara Gandek. *A Manual for Users of the SF-8 Health Survey.* Lincoln, RI: Quality Metric Inc, 2001.

Mina Westman. "Stress and Strain Crossover". *Human Relations* 54 no. 6 (2001): 557-91.

Williams, Alysha, Renee-Louise Franche, Selehadin Ibrahim, Cameron A. Mustard and Francine Layton. "Examining the Relationship Between Work–Family Spillover and Sleep Quality." *Journal of Occupational Health Psychology* 11 no. 1: (2006) 27-37.

Kelly Wilson and Heidi Baumann. "Capturing a More Complete View of Employees' Lives Outside of Work: The Introduction and Development of New Interrole Conflict Constructs." *Personnel Psychology*, 68 no. 2 (2015): 235-282.

Zalesny, Mary, and Kevin J. Ford. "Extending the Social Information Processing Perspective: New Links to Attitudes, Behaviors, and Perceptions." *Organizational Behavior and Human Decision Processes* 47 no. 2 (1990): 205-246.