



## An expanded typology of conflict at work: Task, relationship and non-task organizational conflict as social stressors

Valentina Bruk-Lee, Ashley E. Nixon & Paul E. Spector

To cite this article: Valentina Bruk-Lee, Ashley E. Nixon & Paul E. Spector (2013) An expanded typology of conflict at work: Task, relationship and non-task organizational conflict as social stressors, *Work & Stress*, 27:4, 339-350, DOI: [10.1080/02678373.2013.841303](https://doi.org/10.1080/02678373.2013.841303)

To link to this article: <https://doi.org/10.1080/02678373.2013.841303>



Published online: 24 Oct 2013.



Submit your article to this journal [↗](#)



Article views: 1185



View related articles [↗](#)



Citing articles: 6 View citing articles [↗](#)

## An expanded typology of conflict at work: Task, relationship and non-task organizational conflict as social stressors

Valentina Bruk-Lee<sup>a\*</sup>, Ashley E. Nixon<sup>b</sup> and Paul E. Spector<sup>c</sup>

<sup>a</sup>*Department of Psychology, Florida International University, Miami, USA;* <sup>b</sup>*Atkinson Graduate School of Management, Willamette University, Portland, USA;* <sup>c</sup>*Department of Psychology, University of South Florida, Tampa, USA*

*(Received 13 July 2011; final version received 8 April 2013)*

This study investigated the roles of three types of conflict at work – task, relationship and non-task organizational – in predicting employee strain. These conflict types refer to disputes over issues that are, respectively, work-task specific, driven by emotionally charged interpersonal animosity or rooted in more broad organizationally relevant issues. Findings from a sample of 260 working adults from various organizations in the United States supported the notion that the three types of conflict function as social stressors and are related to a variety of psychological, behavioural and physical strains. They extend previous research based primarily on relationship conflict. Non-task organizational conflict emerged as a key predictor across strain criteria, thus highlighting the importance of including a more complete conceptualization of the conflict construct in social stress research. The results for task conflict are at variance with findings that it can be beneficial, and suggest that its negative relationship with well-being may be due to its co-occurrence with the other forms of conflict. These findings provide support for an expanded typology of conflict.

**Keywords:** social stressor; conflict; well-being; strain; occupational health

### Introduction

Interpersonal conflict at work is regarded as a leading source of stress (e.g. Keenan & Newton, 1985; Schwartz & Stone, 1993) and has been conceptualized as a social stressor (Dormann & Zapf, 1999) linked to psychological, behavioural and physical strains (see Spector & Bruk-Lee, 2008). Interpersonal conflict has been studied extensively (see De Dreu & Weingart, 2003) with much of this research focused on the differential organizational outcomes associated with various conflict types (Pinkley, 1990). However, the occupational stress literature has, with few exceptions (e.g. Meier, Gross, Spector, & Semmer, 2013), primarily studied the impact of conflict arising from personal animosity between employees, known as relationship conflict, on employee well-being. Consequently, recent calls have been made to explore the impact of other conflict types,

---

\*Corresponding author. Email: [vblee@fu.edu](mailto:vblee@fu.edu)

including task and non-task organizational (NTO), on employee strain (De Dreu, van Dierendonck, & Dijkstra, 2004; Spector & Bruk-Lee, 2008). Conceptualizing task and NTO conflict as social stressors is also particularly timely given the recently debated benefits of task conflict, traditionally thought to be desirable in organizations (see De Dreu, 2008; Tjosvold, 2008). The purpose of this study is to test the proposition that conflict's impact on well-being is uniformly negative across types and to examine the incremental variance explained by task and NTO conflicts in strain, thus supporting the inclusion of a more comprehensive conflict typology in social stressor research.

### *A typology of conflict at work*

The most widely cited categorization of conflict at work distinguishes between disputes over work goals and other task-related issues (task conflict) and disagreements arising from personality differences, values and style (relationship conflict; Pinkley, 1990). A third, recently noted type of conflict refers to disagreements that are more broadly organizational in nature, and not specific to a work task (Bruk-Lee & Nixon, 2011). These are referred to as NTO conflict and may include disputes over issues relating to company policies, hiring decisions, benefits, organizational culture, organizational leadership or power.

Various positive organizational outcomes have been associated with task conflicts, including the conception of new ideas, the effective use of resources, task completion and the accurate assessment of work requirements (Baron, 1991; Fiol, 1994; Tjosvold, Dann, & Wong, 1992) although more recently, negative organizational outcomes have also been cited (see De Wit, Greer, & Jehn, 2012). Relationship conflict, on the other hand, has generally been associated with detriments in performance and group satisfaction (De Dreu & Weingart, 2003). Similarly, NTO conflict has been negatively correlated with performance, job satisfaction and engagement while positively associated with safety workarounds (Nixon, Bruk-Lee, & Spector, 2012; Bruk-Lee & Nixon, 2013), and is thus a promising type of conflict to be further examined in relation to employee strain.

### *Social stress arising from conflict at work and employee strain*

According to recent process models of social stressors (see Spector & Bruk-Lee, 2008), instances of interpersonal conflict that are perceived as threatening to one's goals constitute a stressful event (Fox & Spector, 2006). Relationship, task and NTO conflict reflect unique situations of disagreement and interference with goal attainment (Barki & Hartwick, 2004), as well as challenge the general desire for harmonious relationships with others (see Fiske, 1992), thus leading to the appraisal of these conflict types as stressors.

Most stressor-strain models posit a stimulus-response process, whereby conflict precedes short- and long-term employee strains, including negative affective states, somatic conditions that can be risk factors for cardiovascular disease, withdrawal and decreased job satisfaction. A variety of specific negative affective reactions, including anger, frustration and annoyance have been commonly reported in response to relationship conflict at work using qualitative (Keenan & Newton, 1985) and quantitative methods with both cross-sectional (Spector, 1997; Spector & Jex, 1998) and longitudinal

designs (Spector & O'Connell, 1994), as well as multiple data sources (Bruk-Lee & Spector, 2006; Spector, Dwyer, & Jex, 1988).

These negative affective responses are associated with neurochemical and physiological reactions that lead to physical strains (e.g. Greenglass, 1996). The connection between relationship conflict and somatic symptoms, such as digestive disorders and headaches, have been well established (e.g. Nixon, Mazzola, Bauer, Krueger, & Spector, 2011), although task and NTO conflict have not been examined as rigorously. Likewise, cardiovascular disease has been related to conflict via heightened cardiovascular reactivity resulting from stressors (Krantz & Manuck, 1984). For example, elevations in heart rate and blood pressure are common responses to episodes of interpersonal conflict in both laboratory and work settings (Brondolo, Karlin, Alexander, Bobrow, & Schwartz, 1999; Lavoie, Miller, Conway, & Fleet, 2001; Piferi & Lawler, 2006; Van Dijkhuizen & Reiche, 1980). Furthermore, chronic psychosocial stressors, such as conflict, can result in heightened sympathetic nervous system activation linked to established risk factors for cardiovascular disease (Rozanski, Blumenthal, & Kaplan, 1999).

Employees may also respond to social stressors by displaying a variety of behaviours and attitudes that can have implications for well-being. Spector et al. (2006) proposed that employees engage in withdrawal behaviours, such as absence or lateness, in response to stressful situations and reported a significant correlation between relationship conflict and withdrawal across various samples. However, the role of NTO and task conflict in predicting withdrawal behaviours remains unknown. Furthermore, job attitudes, such as satisfaction with one's job or team, have been widely used as an indicator of psychological well-being. Job satisfaction is, perhaps, one of the few strains studied in relation to multiple conflict types. As noted earlier, research has shown support for the negative impact of both relationship and task conflict on employee job satisfaction (Bruk-Lee & Spector, 2006; De Dreu & Weingert, 2003; Frone, 2000; Spector & Jex, 1998).

Our research aims to establish the importance of both task and NTO conflicts as social stressors. We hypothesize that:

*Hypothesis 1:* Relationship conflict will be positively related to negative emotions, cardiovascular disease risk factors, somatic symptoms and withdrawal behaviours, while negatively related to job satisfaction.

*Hypothesis 2:* Task conflict will be positively related to negative emotions, cardiovascular disease risk factors, somatic symptoms and withdrawal behaviours, while negatively related to job satisfaction.

*Hypothesis 3:* Non-task organizational conflict will be positively related to negative emotions, cardiovascular disease risk factors, somatic symptoms and withdrawal behaviours, while negatively related to job satisfaction.

Beyond establishing main effects for both task and NTO conflict in relation to strains, it is important to examine their unique contributions to the stressor-strain process, ensuring that these conflict types are experienced by employees as distinct from relationship conflict and providing support for their future inclusion in social stressor research. While the distinctions between types of conflict have received psychometric support (eg., Bruk-Lee & Nixon, 2011; Jehn, 1995), the extent to which each elicits strain may vary and has not been previously studied. Research has shown, however, that multiple conflict types explain significant variance in organizational outcomes, such as performance and

intragroup cohesiveness, when studied together (Jehn 1995; Jehn, Greer, Levine, & Szulanski, 2008). Further, task and NTO conflicts are likely to present unique and therefore different threats from those of emotionally-charged relationship conflicts and may challenge different self-perceptions (see Swann, 1983); hence, individual responses to these stressors may differ. For example, task-based conflict may pose a threat to one's established routines or preferred processes for task completion and NTO conflict can interfere with one's attempts for broader organizational goal achievement. In this regard, both conflict types may reduce one's sense of control which, when combined with goal interference, can be stressful and result in negative emotions and a variety of strains. We expect that such effects will occur even in the absence of relationship conflict, and thus task and NTO conflict will explain incremental variance in strains. Based on the premise that the three conflict types represent distinct, yet related, stressors with the potential for differentiated strain responses, we propose that:

*Hypothesis 4a:* Task conflict will explain incremental variance in negative emotions, cardiovascular disease risk factors, somatic symptoms, withdrawal and job satisfaction beyond that explained by relationship conflict.

*Hypothesis 4b:* NTO conflict will explain incremental variance in negative emotions, cardiovascular disease risk factors, somatic symptoms, withdrawal and job satisfaction beyond that explained by relationship conflict.

## **Methods**

### ***Participants***

Participants were 260 employees from a variety of industries who worked an average of 43.2 hours per week. In the first instance, 237 employees were invited to participate and were asked to forward the invitation to other potential participants. Invited employees included advertising copywriters, account executives, financial analysts, computer programmers, accountants, medical personnel, engineers, retail associates and educators. Of the final sample ( $N = 260$ ), 72 were male (28%), 159 were female (61%) and 29 (11%) did not report. The majority of the sample was white collar (81%). The average age of the sample was 37 years and job tenure was seven years. The racial breakdown was White non-Hispanic (50%), Hispanic (27%), Black non-Hispanic (4%), Asian/Pacific Islander (1%), and "Other" (6%) with 30 (12%) not reporting. Participants belonged to various industries, including education (18%), medical/social services (10%), financial services (8%), service (7%), technology (7%) and government (5%) among others.

### ***Procedures***

Participants were identified by contacting employees of various organizations located in the United States via electronic mail and asking them to forward the invitation to employees within or outside their organizations. The electronic invitation included a link to the online questionnaire, which provided information about the purpose of the study. Employees were assured anonymity and instructed to answer each item with regard to their present job.

## Measures

*Demographics.* Data on the participants' age, gender (0 = male, 1 = female), job tenure, number of weekly work hours, race, job type and industry sector were collected.

*Social stressors.* A modified version of Jehn's (1995) measure of conflict was used. References to intragroup conflict were edited to reflect conflict with others more broadly. The scale included eight conflict items rated on a five-point scale ranging from 1 = *None* to 5 = *A very great deal*. Jehn (1995) provides support for the two-factor structure of the measure. Items loaded onto two subscales measuring task and relationship conflict with four items each. A sample task conflict item was "How often do people you work with disagree about opinions regarding the work being done?" A sample relationship conflict item included "How much are personality conflicts evident in your workplace?" The internal consistencies of the task and relationship conflict subscales were .87 and .92, respectively.

NTO conflict was measured using 16 items from the Interpersonal Conflict in Organizations Scale (ICOS; Bruk-Lee & Nixon, 2011). Items were assessed on a five-point scale ranging from 1 = *Never* to 5 = *Every day*. A sample item included, "Are you in a dispute with someone at work because of a company policy?" The Cronbach's alpha coefficient for this subscale was .92.

*Negative emotional state.* The negative emotion subscale of the Job-Related Affective Well-Being Scale was used (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). Respondents rated how often their present jobs made them feel each of 10 negative emotions. Each item was rated on a five-point scale ranging from 1 = *Never* to 5 = *Every day*. A negative emotion score was calculated by summing the scores on all items. The internal consistency of the negative emotion subscale was .91.

*Somatic symptoms.* The 13-item Physical Symptoms Inventory (PSI; Spector & Jex, 1998) was used. Each item was a symptom such as headaches or stomach distress. Respondents rated each item on a five-point scale ranging from 1 = *Less than once per month or never* to 5 = *Several times per day*. Cronbach's alpha coefficient was .84.

*Job satisfaction.* The three-item Cammann, Fichman, Jenkins, and Klesh (1979) job satisfaction scale from the Michigan Organizational Assessment Questionnaire was used. Items asked participants about their satisfaction with the job overall and were rated on a six-point Likert type scale ranging from 1 = *Disagree very much* to 6 = *Agree very much*. The scale had an internal consistency of .84.

*Withdrawal.* Respondents indicated how often they engaged in withdrawal behaviours, such as taking unauthorized breaks or engaging in periods of daydreaming, on a scale from 1 = *Never* to 5 = *Every day* using the five-item withdrawal subscale of the Counterproductive Work Behaviors Checklist (CWB-C; Spector et al., 2006). The internal consistency was .83.

*Cardiovascular disease risk factors.* Participants were asked to report if they had been medically diagnosed with any of four cardiovascular disease (CVD) risk factors, including hypertension, coronary disease, elevated cholesterol and elevated triglycerides

(see World Heart Federation, 2011). Individuals were given a total score from 0–4 depending on the number of risk factors reported.

## Results

Table 1 shows correlations, means, standard deviations and alpha coefficients for demographic variables, social stressors and strain criteria. Consistent with prior research and recently published meta-analyses, the intercorrelations among conflict types were moderately high, ranging between .55 and .72 (Barki & Hardwick, 2004; De Wit et al., 2012; Poitras, 2012; Simons & Peterson, 2000). Relationship and NTO conflicts were significantly correlated with all strains in the expected direction, fully supporting Hypotheses 1 and 3. Task conflict was significantly correlated with all of the criteria except for CVD risk factors, thus lending partial support to Hypothesis 2.

Hypotheses 4a and 4b were tested using a series of hierarchical regressions. The pattern of focal coefficients were not altered when demographics were included, therefore, the results presented do not include demographic control variables.

Relationship conflict was entered in the first step and found to be a significant predictor of all five criteria (see Table 2). Task and NTO conflicts were entered in the second step in order to assess the incremental variance explained by these predictors. Task conflict, however, did not explain significant incremental variance in any of the five strains, thus support for Hypothesis 4a was not found.

The data do lend support to Hypothesis 4b. In addition to relationship conflict ( $\beta = .21, p < .05$ ), NTO conflict ( $\beta = .52, p < .05$ ) explained unique incremental variance in negative emotions at step 2,  $F(2, 224) = 37.35, p < .05$ . In the case of CVD risk factors, NTO conflict ( $\beta = .26, p < .05$ ) explained unique variance,  $F(2, 206) = 5.02, p < .05$ , and was the only significant predictor at Step 2. This pattern was also found for somatic symptoms and withdrawal. Specifically, NTO conflict ( $\beta = .25, p < .05$ ) explained significant incremental variance in somatic symptoms,  $F(2, 225) = 4.87, p < .05$ , beyond relationship conflict. Further, NTO conflict ( $\beta = .25, p < .05$ ) alone significantly predicted withdrawal behaviours at Step 2,  $F(2, 225) = 6.79, p < .05$ . As was the case for negative emotions, both relationship ( $\beta = -.32, p < .05$ ) and NTO ( $\beta = -.38, p < .05$ ) conflict explained significant variance in job satisfaction at Step 2,  $F(2, 222) = 13.54, p < .05$ .

## Discussion

Our findings indicate that three distinct types of work-related conflict are associated with a variety of behavioural, physical and psychological strains. The current study makes a timely and significant contribution consistent with the view that the negative consequences of conflict can outweigh the positive, even under the narrowly defined set of circumstances when conflict may be deemed favourable (see De Dreu, 2008). More importantly, previous stress research based primarily on the measurement of relationship conflict can be extended to task and NTO conflict, a key contribution to the continued development of social stressor process models (see Spector & Bruk-Lee, 2008).

As hypothesized, NTO conflict explained unique incremental variance across all of the strain criteria. Although the role of NTO conflict as a stressor has been largely unexplored, similar results have been previously reported in relation to well-being, thus providing additional confidence in the findings of this study (Nixon, Bruk-Lee, &

Table 1. Means, standard deviations and intercorrelations among study variables.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Relationship Conflict	2.60	0.85	(.92)										
2. Task Conflict	2.49	0.76	.72*	(.87)									
3. NTO Conflict	1.60	0.58	.58*	.55*	(.92)								
4. Negative Emotion	1.95	0.75	.51*	.44*	.65*	(.91)							
5. CVD Risk Factors	0.09	0.17	.16*	.08	.24*	.18*	(na)						
6. Somatic Symptoms	1.63	0.50	.27*	.19*	.30*	.42*	.14*	(.84)					
7. Withdrawal	1.95	0.74	.19*	.23*	.29*	.46*	.07	.26*	(.83)				
8. Job Satisfaction	4.76	1.25	-.42*	-.29*	-.48*	-.61*	-.13*	-.24*	-.28*	(.84)			
9. Gender <sup>o</sup>	0.70	0.50	.02	.07	.03	.03	.02	.27*	.03	-.06	(na)		
10. Age	37.0	10.6	.15*	.04	.09	.01	.42*	.04	-.14*	.04	.08	(na)	
11. Tenure	7.4	7.9	.10	.02	.01	.06	.30*	-.01	-.08	.04	.09	.67*	(na)

Notes: Alpha coefficients are on the diagonal;  $N = 226-258$ . NTO = non-task organizational; CVD = cardiovascular disease. <sup>o</sup>0 = male, 1 = female.

\* $p < .05$

Table 2. Hierarchical regression analyses for conflict types predicting strains.

Predictors	Criteria									
	Negative Emotions		CVD Risk Factors		Somatic Symptoms		Withdrawal		Job Satisfaction	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Relationship Conflict	.51*	.21*	.16*	.13	.26*	.17	.20*	-.03	-.43*	-.32*
Task Conflict		.01		-.16		-.08		.11		.14
NTO Conflict		.52*		.26*		.25*		.25*		-.38*
Adjusted $R^2$	.26*	.44*	.02*	.06*	.06*	.09*	.04*	.08*	.18*	.26*
$\Delta R^2$		.18*		.04*		.03*		.04*		.08*

Note: \* $p < .05$ .

Spector, 2012). Critical incidents of NTO conflict may reflect situations outside of the control of the parties involved, such as arguments between employees due to an organizational decision to cut back on spending or personnel (Bruk-Lee & Nixon, 2011). This is important given that control is a focal variable in the stress process (Karasek, 1979). Consequently, employees are likely to perceive NTO conflict as having low resolution potential, which is known to be a factor influencing the effect of conflict on organizational outcomes (Jehn et al., 2008).

Further, given the types of disagreement incidents assessed, it is possible for NTO conflict to stem from or result in perceptions of organizational injustice, which has been shown to be linked to a variety of strains including withdrawal and dissatisfaction (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). NTO conflict can also permeate across people and tasks such that the same organizational issue could be the cause of conflict between an employee and multiple parties and be a source of disagreement in multiple aspects of the work, hence increasing its potential impact on employee strains.

Task conflict, on the other hand, did not explain unique variance in any of the criteria studied, suggesting that its role as a social stressor may be due to its high co-occurrence with other conflict types. Moderately high correlations between relationship conflict and task conflict have been widely cited in the literature (Barki & Hardwick, 2004; De Wit et al., 2012; Poitras, 2012; Simons & Peterson, 2000), although studies have supported their distinctiveness (Jehn, 1995, 1997). The high intercorrelation may be due to overlapping definitional properties, the reflection of a higher order construct, and/or the escalation of task conflict into relationship conflict (Barki & Hardwick, 2004; Jehn, 1994). Episodic research designs that focus on individual incidents would help disentangle the effects of these two forms of conflict.

Additional evidence suggests that relationship and task conflict might have joint effects. Recent meta-analyses found that task conflict's negative impact on organizational outcomes is stronger when its co-occurrence with relationship conflict is higher (De Dreu & Weingart, 2003; De Wit et al., 2012). Moreover, it has been suggested that the resources spent on resolving other forms of conflict depletes one's ability to effectively manage or avoid task conflict (De Wit et al., 2012) and that employees are able to detach themselves from the emotional aspect of conflict when it is task-based (Jehn et al., 2008). Although task conflict did not explain incremental variance in the criteria investigated, more research is needed as the possibility exists that it can play a more meaningful role in explaining other forms of strain not considered in this study. To the extent that task conflicts can be associated with the emergence of other social stressors, their inclusion in future research will be beneficial in elucidating the influence of the social work environment on experienced strains.

Several limitations should be noted in this study, including the possibility of common method bias due to the self-report nature of the data. However, studies using cross-source reports support at least some of our findings (e.g. Bruk-Lee & Spector, 2006). Berry, Carpenter, and Barratt (2012) showed that self-reports and reports by others of counterproductive work behaviour had similar correlations with conflict. Furthermore, subjective measures may be the most appropriate option, given the perceptual nature of many of the variables examined in this study (Schaubroeck, 1999).

The cross-sectional nature of the data also limits our findings. The conflict process is dynamic and relationships with variables, particularly CVD risk factors, are complex. For example, meta-analytic evidence suggests that trait hostility is associated with elevated blood pressure in situations where provocative stressors are present (Suls & Wan, 2007),

thus emphasizing the importance of interpersonal conflict. However, the possibility exists for people diagnosed with CVD risk factors to experience changes in mood or behaviour in a way that might lead to more conflict. In fact, a commonly cited side effect of medication among patients with antihypertensive therapy is irritability (Jachuck, Brierley, Jachuck, & Willcox, 1982), which is likely to impact the quality of relationships with others at work and play a role in the emergence or perception of conflict. Also, prospective studies have shown an association between CVD and depression (Rugulies, 2002). Similarly, research has found associations between depressive mood and higher levels of reported work conflict (Dormann & Zapf, 2002), thus possibly confounding the relationships observed. Further, high levels of outward anger expression at work have been shown to relate to elevated blood pressure (Bongard & al'Absi, 2003). Employees with past medically diagnosed CVD risk factors, who engage in this type of anger expression at work, are likely to perceive situations as threatening and report higher levels of conflict. Nevertheless, the results make a contribution to a growing area of interest and are consistent with previously cited findings (Brondolo et al., 1999). Further, although our sample showed limited variability in stress levels as indicated by descriptive statistics, the ability to find statistically significant results supports the robust nature of the relationships explored.

#### ***Future research and concluding remarks***

A number of research questions still remain, including the role of various moderating variables such as personality and conflict management styles in the conflict-strain relationship. Further, the intensity of the conflict situation warrants attention (see Hershcovis, 2011). Most conflict measures used in social stressor research focus on the frequency of the incidents; however, doing so overlooks the impact that the conflict's intensity can have on the experience of strain. This is particularly relevant in the study of social stressors where the same conflict situation can vary in the intensity with which it is appraised as a function of situational and personal factors. Promising findings suggest that intensity moderates the relationship between workplace aggression and strains, such that employees experience more negative outcomes when the intensity of the conflict is perceived to be higher (Nixon, 2012). Additional research is warranted using longitudinal or experimental designs, which could lead to more conclusive findings about causal relationships.

This study has contributed to recent efforts to advance a comprehensive conceptualization of the interpersonal conflict construct and has provided supporting evidence for an expanded typology of conflict as a social stressor at work. These results indicate that the occurrence of conflict, regardless of type, is inherently a negative experience that might adversely affect well-being, and that conflicts over issues that are of an organizational nature may be among the most salient.

#### **References**

- Barki, H., & Hartwick, J. (2004). Conceptualizing the construct of interpersonal conflict. *International Journal of Conflict Management*, *15*, 216–244.
- Baron, R. A. (1991). Positive effects of conflict: A cognitive perspective. *Employee Responsibilities and Rights Journal*, *2*, 25–36.

- Berry, C. M., Carpenter, N. C., & Barratt, C. L. (2012). Do other-reports of counterproductive work behavior provide an incremental contribution over self-reports? A meta-analytic comparison. *Journal of Applied Psychology, 97*, 613–636.
- Bongard, S., & al'Absi, M. (2003). Domain-specific anger expression assessment and blood pressure during rest and acute stress. *Personality and Individual Differences, 34*, 1383–1402.
- Brondolo, E., Karlin, W., Alexander, K., Bobrow, A., & Schwartz, J. (1999). Workday communication and ambulatory blood pressure: Implications for the reactivity hypothesis. *Psychophysiology, 36*, 86–94.
- Bruk-Lee, V., & Nixon, A. E. (2011, May). Non-task organizational conflict: An understudied source of social stress at work. Poster presented at the APA conference on Work, Stress, and Health, Orlando, FL.
- Bruk-Lee, V., & Nixon, A. E. (2013). *Conflict and stress in the nursing profession*. Unpublished manuscript, Florida International University, Miami.
- Bruk-Lee, V., & Spector, P. E. (2006). The social stressors-counterproductive work behaviors link: Are conflicts with supervisors and coworkers the same? *Journal of Occupational Health Psychology, 11*, 145–156.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organizational assessment questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millenium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*, 425–445.
- De Dreu, C. K. W. (2008). The virtue and vice of workplace conflict: food for (pessimistic) thought. *Journal of Organizational Behavior, 29*, 5–18.
- De Dreu, C. K. W., van Dierendonck, D., & Dijkstra, M. (2004). Conflict at work and individual well-being. *International Journal of Conflict Management, 15*, 6–26.
- De Dreu, C. K. W., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology, 88*, 741–749.
- De Wit, F. R. C., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology, 97*, 360–390.
- Dormann, C., & Zapf, D. (1999). Social support, social stressors at work, and depressive symptoms: Testing for main and moderating effects with structural equations in a three-wave longitudinal study. *Journal of Applied Psychology, 84*, 874–884.
- Dormann, C., & Zapf, D. (2002). Social stressors at work, irritation, and depressive symptoms: Accounting for unmeasured third variables in a multi-wave study. *Journal of Occupational and Organizational Psychology, 75*, 33–58.
- Fiol, C. M. (1994). Consensus, diversity and learning in organizations. *Organization Science, 5*, 403–420.
- Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review, 99*, 689–723.
- Fox, S., & Spector, P. E. (2006). The many roles of control in a stressor-emotion theory of counterproductive work behavior. In P. L. Perrewé & D. C. Ganster (Eds.), *Research in occupational stress and well-being, Vol 5* (pp. 171–201). Greenwich, CT: JAI.
- Frone, M. R. (2000). Interpersonal conflict at work and psychological outcomes: Testing a model among young workers. *Journal of Occupational Health Psychology, 5*, 246–255.
- Greenglass, E. R. (1996). Anger suppression, cynical distrust, and hostility: Implications for coronary heart disease. In C. D. Spielberger, I. G. Sarason, J. M. T. Brebner, E. Greenglass, P. Laungani & A. M. O'Roark (Eds.), *Stress and emotion: Vol. 16. Anxiety, anger, and curiosity* (pp. 205–225). Washington, DC: Taylor & Francis.
- Hershcovis, M. S. (2011). "Incivility, social undermining, bullying ... oh my!": A call to reconcile constructs within workplace aggression research. *Journal of Organization Behavior, 42*, 499–519.
- Jachuck, S. J., Brierley, H., Jachuck, S., & Willcox, P. M. (1982). The effect of hypotensive drugs on the quality of life. *Journal of the Royal College of General Practitioners, 32*, 103–105.
- Jehn, K. A. (1994). Enhancing effectiveness: An investigation of advantages and disadvantages of value-based intragroup conflict. *International Journal of Conflict Management, 5*, 223–238.
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly, 40*, 256–282.

- Jehn, K. A. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly*, 42, 530–557.
- Jehn, K. A., Greer, L., Levine, S., & Szulanski, G. (2008). The effects of conflict types, dimensions, and emergent states on group outcomes. *Group Decision and Negotiation*, 17, 465–495.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 335–357.
- Keenan, A., & Newton, T. J. (1985). Stressful events, stressors and psychological strains in young professional engineers. *Journal of Occupational Behavior*, 6, 151–156.
- Krantz, D. S., & Manuck, S. B. (1984). Acute psychophysiological reactivity and risk of cardiovascular disease: A review and methodological critique. *Psychological Bulletin*, 96, 435–464.
- Lavoie, K. L., Miller, S. B., Conway, M., & Fleet, R. P. (2001). Anger, negative emotions and cardiovascular reactivity during interpersonal conflict in women. *Journal of Psychosomatic Research*, 51, 503–512.
- Meier, L. L., Gross, S., Spector, P. E., & Semmer, N. K. (2013). Relationship and task conflict at work: Interactive short-term effects on angry mood and somatic complaints. *Journal of Occupational Health Psychology*, 18, 144–156.
- Nixon, A. E. (2012, April). Charting a semantic jungle: Novel method for examining workplace aggression. Poster presented at the annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Nixon, A., Bruk-Lee, V., & Spector, P. E. (2012, April). Forgotten emotions at work: Investigating interpersonal conflict and emotional labor. Poster presented at the annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Nixon, A. E., Mazzola, J. J., Bauer, J., Krueger, J. R., & Spector, P. E. (2011). Can work make you sick?: A meta-analysis of job stressor-physical symptom relationships. *Work & Stress*, 25, 1–22.
- Piferi, R. L., & Lawler, K. A. (2006). Social support and ambulatory blood pressure: An examination of both giving and receiving. *International Journal Psychophysiology*, 62, 328–336.
- Pinkley, R. L. (1990). Dimensions of conflict frame: Disputant interpretations of conflict. *Journal of Applied Psychology*, 75, 117–126.
- Poitras, J. (2012). Meta-analysis of the impact of the research setting on conflict studies. *International Journal of Conflict Management*, 23, 116–132.
- Rozanski, A., Blumenthal, J. A., & Kaplan, J. (1999). Impact of psychological factors on the pathogenesis of cardiovascular disease and implications for therapy. *Circulation*, 99, 2192–2217.
- Rugulies, R. (2002). Depression as a predictor of coronary heart disease. *Journal of Preventive Medicine*, 23, 51–61.
- Schaubroeck, J. (1999). Should the subjective be the objective? On studying mental processes, coping behavior, and actual exposures in organizational stress research. *Journal of Organizational Behavior*, 20, 753–760.
- Schwartz, J. E., & Stone, A. A. (1993). Coping with daily work problems: Contributions of problem content, appraisals, and person factors. *Work and Stress*, 7, 47–62.
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85, 102–111.
- Spector, P. E. (1997). The role of frustration in antisocial behavior at work. In R. A. Giacalone & J. Greenberg (Eds.), *Anti-social behavior in organizations* (pp. 1–17). Thousand Oaks, CA: Sage.
- Spector, P. E., & Bruk-Lee, V. (2008). Conflict, health, and well-being. In C. K. W. De Dreu & M. J. Gelfand (Eds.), *The psychology of conflict and conflict management in organizations* (pp. 267–288). San Francisco, CA: Jossey-Bass.
- Spector, P. E., Dwyer, D. J., & Jex, S. M. (1988). Relation of job stressors to affective, health, and performance outcomes: A comparison of multiple data sources. *Journal of Applied Psychology*, 73, 11–19.
- Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior*, 68, 446–460.
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraint Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology*, 3, 356–367.

- Spector, P. E., & O'Connell, B. J. (1994). The contribution of personality traits, negative affectivity, locus of control and Type A to the subsequent reports of job stressors and job strains. *Journal of Occupational and Organizational Psychology*, *67*, 1–11.
- Suls, J., & Wan, C. K. (2007). The relationship between trait hostility and cardiovascular reactivity: A quantitative review and analysis. *Psychophysiology*, *30*, 615–626.
- Swann, W. B. Jr. (1983). Self-verification: Bringing social reality into harmony with the self. In J. Suls & A.G. Greenwald (Eds.), *Social psychological perspectives on the self* (pp. 33–66). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Tjosvold, D. (2008). The conflict-positive organization: It depends upon us. *Journal of Organizational Behavior*, *29*, 19–28.
- Tjosvold, D., Dann, V., & Wong, C. (1992). Managing conflict between departments to serve customers. *Human Relations*, *4*, 1035–1054.
- Van Dijkhuizen, N., & Reiche, H. (1980). Psychosocial stress in industry: A heartache for middle management? *Psychotherapy and psychosomatics*, *34*, 124–134.
- Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the job-related affective well-being scale (JAWS) to investigate affective responses to work stressors. *Journal of Occupational Health Psychology*, *5*, 219–230.
- World Heart Federation (2011). Cardiovascular disease risk factors. Retrieved from <http://www.world-heart-federation.org>