

Threats of Workplace Violence and the Buffering Effect of Social Support

IJ. Hetty van Emmerik

Martin C. Euwema

Arnold B. Bakker

Utrecht University

Based on the perspective of the psychological contract, this study among 2,782 constabulary officers tested the hypothesis that threats of workplace violence lead to reduced job investments (i.e., affective organizational commitment and dedication). Multilevel analyses showed negative relationships between threats of workplace violence (individually experienced and as expressed in an unsafe climate) and job investments. Peer support was related to more job investments and buffered an unsafe climate, that is, the negative relationship between an unsafe climate and reduced job investments was stronger for employees with low levels of peer support. Experiencing an unsafe climate at the aggregate level by the cumulative experience of threat by employees can perhaps be thought of as facing a common enemy, and it has been shown that this has consequences for employees' attitudes that can be buffered by peer support.

Keywords: *psychological contract; workplace violence; social support*

Threats of workplace violence and aggression have emerged as important and very serious safety and health issues in today's workplace (Occupational Safety and Health Administration [OSHA], 2002). Workers who have gone through workplace threats and actual violence are likely to be more depressed and to report more anxiety and less job satisfaction (Driscoll, Worthington, & Hurrell, 1995). They are also more likely to suffer from decreased well-being (Schat & Kelloway, 2003) and to experience more health problems (Shakespeare-Finch, Smith, & Obst, 2002) than employees who have not been confronted with violence or aggression.

Workplace aggression encompasses all forms of behavior by which individuals intend to harm others at work or their organizations. Workplace violence is a more restricted concept and refers specifically to instances

involving direct physical assaults, including any threatening statements or behaviors that give employees reasonable cause to believe they are at risk (Mayhew & Chappell, 2002; Neuman & Baron, 1998). This conceptualization of workplace violence emphasizes interpersonal forms of aggression rather than aggression directed at the organization (Glomb & Liao, 2003; Neuman & Baron, 1998). In the present study, we will depart from this conceptualization of workplace violence and specifically focus on one specific type of workplace violence: threats of physical violence that are specifically directed at employees (see Mayhew & Chappell, 2002).

Studies on the impact of threats of workplace violence on organizational and individual outcomes have predominantly examined the effects of different types of (threats of) workplace violence at the individual level (Jawahar, 2002; Neuman & Baron, 1998; Schat & Kelloway, 2000, 2003; Stephens & Long, 2000; Van Dierendonck & Mevissen, 2002). However, feeling threatened and unsafe may also be considered an element of the group climate. From the social contagion perspective (LeBlanc & Kelloway, 2002; Levy & Nail, 1993; Raven & Rubin, 1983) and the idea of experiencing vicarious violence (Schat & Kelloway, 2003), it is argued that these feelings of threat at the group level can cross over to individual employees.

The purpose of the present study is to examine the consequences of experiencing threats of physical assault at both the individual level and the unit level (i.e., working within an unsafe group). Moreover, we will also study how workplace social support within work groups acts as a buffer against the negative effects of an unsafe climate. Studying these relationships is important from both a theoretical and a managerial point of view. Group-level effects of feeling threatened and unsafe add new insights into how vicarious experiences of adverse working conditions should be understood in relation to individual behaviors and job investments. Moreover, if group-level effects are found, this elucidates the need to concentrate not only on individual-level interventions (e.g., counseling or various employee assistance programs; see Neuman & Baron, 1998) but also on team-based interventions (e.g., peer support groups or team assistance programs) to counteract the negative effects of going through threats of workplace violence (Le Blanc, De Jonge, & Schaufeli, 2000).

The Psychological Contract Perspective and Violence at Work

To understand the negative association between threats of violence at work and job investments, such as commitment and dedication, elements of the psychological contract breach model can be used.

The psychological contract refers to an individual's beliefs about terms and conditions of a reciprocal exchange agreement between that person and his or her employer (Robinson, 1996; Robinson & Rousseau, 1994; Rousseau, 1989; Rousseau & Tijoriwala, 1998). It specifies the contributions that employees believe they owe to their employer and the obligations and inducements they believe are owed in return (Robinson & Rousseau, 1994). Psychological contract breach is likely to result when employees perceive that they have made contributions as promised, yet the employer failed to reciprocate these contributions (Morrison & Robinson, 1997; Robinson, Kraatz, & Rousseau, 1994). In the case of threats of violence, this may also hold for the violation of more explicit agreements, such as the "duty of care" (i.e., the requirement that everything reasonably be done to protect the health and safety of employees; Cartwright & Cooper, 1996). This can also be interpreted as inequity; inequity occurs when—in the perception of employees—the employer has failed to adequately fulfill promised obligations (Arnold, 1996; Coyle-Shapiro, 2002). The resulting output-input ratio may be perceived as unequal and employees will strive to restore this inequity by decreasing commitment and dedication.

The examination of these relationships is important because, increasingly, job holders are experiencing a breach in the psychological contracts as violence within workgroups increases in many jobs (e.g., school teachers, border control agents, etc.).

Job Investments: Organizational Commitment and Job Dedication

In the present study, we will examine whether two specific types of job investments will be reduced in response to experienced threats of violence, namely affective organizational commitment toward the organization and dedication to the job. Affective organizational commitment refers to employees' emotional attachment to, identification with, and involvement in the organization (Allen & Meyer, 1990). A growing body of research demonstrates that affective organizational commitment to organizations is based on workers' perceptions of reciprocation of their own investments and what they receive from their organizations in return (Settoon, Bennett, & Liden, 1996; Van Dyne & Ang, 1998). Affective organizational commitment has been shown to correlate negatively with self-reported stress, and job demands have been found to have a strong negative association with affective organizational commitment (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Moreover, affective organizational commitment has a strong positive relationship with perceived organizational support (Eisenberger, Fasolo, & Davis LaMastro, 1990), and

previous studies have also shown that affective organizational commitment is an important factor in understanding and managing employee behavior (Meyer et al., 2002; Tett & Meyer, 1993).

Job dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli, Salanova, Gonzalez Roma, & Bakker, 2002). It refers to a strong involvement in one's work tasks. This type of involvement is conceptualized as part of the more general construct of work engagement, that is, the persistent, positive affective motivational state of fulfillment in employees that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Dedication at work is defined in terms of psychological identification with one's job, whereas affective organizational commitment is defined in terms of commitment to the organization.

The Relationship Between Threats of Violence and Job Investments

Changes in the environment are seen as reinforcements or breaches of the psychological contract that result in changes in investments. Generally, changes in task assignments that are experienced as positive can be expected to be related to increased job investments. For instance, a study among 12,140 employees (Swaen, Kant, Amelvoort, & Beurskens, 2002) showed that such changes were related to improved job satisfaction. Threats of violence represent a change in the work environment and are likely to be negatively associated with employees' investments, such as decreased performance, increased intentions to quit, reduced commitment, and decreased dedication (Bunderson, 2001; Coyle-Shapiro, 2002; Turnley, Bolino, Lester, & Bloodgood, 2003). In the present study, it is expected that increased likelihood of threats of physical assault lead employees to reconsider the balance between their investments and rewards. As psychological contract research suggests that such negative changes are perceived as breached, which are associated with decreased job investments (Robinson, 1996; Robinson & Rousseau, 1994), a decrease of investments can be predicted:

Hypothesis 1a: Threats of violence will be negatively related to commitment.

Hypothesis 1b: Threats of violence will be negatively related to work dedication.

The Relationship Between an Unsafe Climate and Job Investments

Hypotheses 1a and 1b reflect associations of violence with job investments at the individual level. However, employees working in units in which

many colleagues have been confronted with threats of violence may also perceive their working environment to be relatively unsafe. Furthermore, negative experiences may spread through departments and affect the behaviors of secondary victims (i.e., those who witnessed or heard about violence; Schat & Kelloway, 2000, 2003). This may, in turn, be related to individual behaviors, such as decreased job investments. Under these conditions, unit members, and even those who have not been victims of threats personally, will be less committed to their organization and less dedicated to their work. Therefore, we expect violence at the work unit level to negatively affect investments at the individual level.

Hypothesis 2a: Perceptions of an unsafe work environment (at the aggregate level) will be negatively related to commitment.

Hypothesis 2b: Perceptions of an unsafe work environment (at the aggregate level) will be negatively related to work dedication.

Peer Support and Job Investments

Social support from colleagues is a major resource for coping with work demands. For instance, having friendly and helpful colleagues motivates and contributes to well-being at work and job satisfaction (Van Emmerik, 2002; Viswesvaran, Sanchez, & Fisher, 1999). Moreover, seeking social support by using others to express anger may provide the emotional support necessary to cope with adverse working conditions. According to Knapp, Faley, Ekeberg, and Dubois (1997), such social support seeking is a means by which employees may discuss their experiences with sympathetic others, such as coworkers and—in the case of sexual harassment—employees with social coping mechanisms are more likely to proactively address the problem (Goldberg, 2001; Knapp et al., 1997). Social support from peers, therefore, is expected to have a direct positive relationship with commitment and dedication.

Hypothesis 3a: Peer support will be positively related to commitment of individual employees.

Hypothesis 3b: Peer support will be positively related to dedication of individual employees.

The Buffering Role of Peer Support

Besides a direct positive relationship of peer support with commitment and dedication, social support from peers is often found to be a strong buffer against stressful events (Cohen & Wills, 1985; Cummins, 1990;

Stephens & Long, 2000), and such support may mitigate the negative consequences of traumatic events (Van der Ploeg, Dorresteijn, & Kleber, 2003). For example, Driscoll et al. (1995) found that employees who were assaulted were more likely to report depression and low job satisfaction than were their nonassaulted coworkers. Assaulted persons who reported low levels of work-related social support were more likely to report low job satisfaction and to report depression. Likewise, Schat and Kelloway, (2000, 2003) found evidence for the buffering effect of social support at the individual level. These authors showed social support to buffer the effects of physical violence and vicariously experienced violence (i.e., witnessing or hearing about violence or threats of violence directed at others within one's own workplace) on job satisfaction and depression. These previous studies found evidence for the buffering effect of social support at the individual level, whereas stressful traumatic events (including threats of violence) may be shared among colleagues and have an impact at the aggregate level beyond the individual-level effects. However, it seems to be likely that it is at the unit level that redefinition of its environment and the attitudes toward work and the organization takes place; therefore, we have chosen only to focus on aggregate-level interactions.

Hypothesis 4a: The negative relationship between a perceived unsafe work environment (at the aggregate level) within the unit and commitment will be moderated by peer support. Specifically, the negative relationship between a perceived unsafe work environment within the unit and commitment is expected to be stronger for those employees with low levels of peer support than for those with high levels of support.

Hypothesis 4b: The negative relationship between a perceived unsafe work environment (at the aggregate level) within the unit and dedication will be moderated by peer support. Specifically, the negative relationship between a perceived unsafe work environment within the unit and dedication is expected to be stronger for those employees with low levels of peer support.

Method

Participants

This study was part of a written survey on working conditions and occupational health among all employees working for the Dutch Royal Constabulary (4,987 employees). Dutch questionnaires, with free return envelopes, were sent to the home addresses of all constabulary officers. Anonymity was guaranteed, and information about the study was provided by

the management. The response was 3,042 questionnaires (61%). After deleting data of participants with missing values on the research variables, the data of 2,773 constabulary officers (92% men and 8% women) from 85 units with a mean size of 33 constabulary officers ($SD = 18.0$) per unit were used. Mean age of the respondents is 36.2 years ($SD = 9.5$). Mean education of the respondents is 9.4 years of education ($SD = 1.7$).

Traditionally, the job of the Dutch constabulary was aimed at safeguarding the Dutch queen and checking passports. However, because of recent changes in the past 5 years in job-related tasks, this image has drastically changed. More than 90% of the work nowadays is comparable to civilian and/or military policing tasks, such as border control, crime investigations, traffic control, and protection of civilian persons and objects. Also, demanding tasks, such as the responsibility for illegal immigrants, including detention and return to their home countries, have been added. These new task assignments frequently coincide with threats of violence and actual assaults.

Measures

Affective organizational commitment and dedication. Affective organizational commitment refers to employees' emotional attachment to the organization (Allen & Meyer, 1990), whereas dedication or the sense of significance and enthusiasm (Schaufeli et al., 2002) is more directed at work itself. Affective commitment was measured with six items from Mowday, Steers, and Porter (1979). An example "I tell my friends and family that my organization is a pleasant organization to work for" (1 = completely disagree, 5 = completely agree). Cronbach's alpha of this scale was .84. Dedication was measured with five items from Schaufeli et al. (2002) that have been shown to be reliable in several studies. An example item is "I am enthusiastic about my job." The dedication items used a 7-point response format (0 = never, 6 = every day). Cronbach's alpha of this scale was .93. For both scales, the items were summed and divided by the number of items.

Factor analysis on the joint items of the affective organizational commitment and dedication scales resulted in the expected two dimensions (see Table 1). Factor 1 (eigenvalue = 3.84, representing 35% shared variance) consists of the five dedication items. Factor 2 (eigenvalue = 3.46, representing 32% shared variance) consists of the six affective organizational items.

Threats of physical assault and unsafe climate. The occurrence of threats of physical assault was assessed with two items. Respondents were asked whether (a) they experienced threats of physical assault in their work

Table 1
**Results of Factor Analysis (Principal Component Analysis,
 Varimax Rotation) for the Affective Organizational
 Commitment and Dedication Items**

	Factor 1	Factor 2
Dedication ($\alpha = .93$)		
Being inspired by doing this job	.87	.22
Being enthusiastic about this job	.87	.26
Regarding job useful and significant	.85	.12
Job is really challenging	.84	.23
Taking pride and joy in doing this job	.81	.33
Affective organizational commitment ($\alpha = .84$)		
Being proud to tell others that I am part of this organization	.23	.79
Talk up this organization to friends as a great place to work	.22	.77
This is the best of all possible organizations for which to work	.17	.77
Being very happy to spend the rest of career with this organization	.17	.74
Really care about the fate of this organization	.26	.64
Agreeing with this organization's policies on important matters	.13	.64
Eigenvalue	3.84	3.46
Cumulative shared variance (%)	35	66

and (b) they feel unsafe in their work. These items used a 5-point response format (0 = never, 5 = always), and Cronbach's alpha was .71.

Peer support. Peer support was measured with three items adopted from Iverson, Olekalns, and Erwin (1998): (a) "My peers can be relied on when things get difficult on my job," (b) "My peers are willing to listen to my job-related problems," and (c) "My peers are helpful to me in getting the job done." These items were measured with a 5-point response format (1 = never, 5 = always), and Cronbach's alpha was .79.

Background variables. Gender (male = 0, female = 1), age (in years), and educational level (in years of education completed) were included in the analyses. Gender was included because some studies show that women are especially likely to report exposure to forms of workplace violence (see Lawoko, Soares, & Nolan, 2004). Age was controlled for because some previous research suggested that relatively older employees were at greater risk for workplace violence, whereas another study showed that employees

younger than 25 are more likely to be threatened (see Budd, Arvey, & Lawless, 1996). Educational level was controlled because Norris and Kaniasty (1994) found that, relative to nonvictims, respondents who were confronted with violence were more educated. Finally, unit size was controlled for because larger units are more likely to encounter problems with providing social support and are likely to be less cohesive and integrated (Lichtenstein, Alexander, Jinnett, & Ullman, 1997).

Data Analysis

So-called group assessments seem to be very useful in measuring job characteristics (Frese & Zapf, 1988; Spector, 1992). The group assessments can be described as the group estimates of the respective job characteristics for each job incumbent. According to Frese and Zapf (1988), group assessments are more objective measures in the sense that the influence of idiosyncratic individual perceptions and possibly illusory answers is reduced. In addition, the expertise of workers is taken into account, and problems of brief periods of observation are avoided. Finally, group assessments are subject to methodological problems such as common method variance. Thus, group data are likely to be more reliable than individual assessments.

In the analyses we used two constructs (threats at the individual level vs. unsafe climate at the aggregate level) based on the idea that constructs at the individual level do not necessarily corroborate with the aggregated-level construct. Individual-level correlation and group-level correlation can differ when the individual-level measures are not directly equivalent to their higher level counterparts (Bliese & Jex, 1999). In the present study, a relatively low correlation between the individual- and group-level measures is indeed observed. For this reason and because Bliese and Jex (1999) note that group-level variables can be reliably measured using the perceptions of all group members, for the present study we used both the individual and the unit averages of employees' perceptions of threats of violence.

Multilevel analyses make it possible to specify cross-level interactions, that is, to specify processes between the individual and the aggregate level that allow those individuals to be differentially influenced by certain aspects of the context (Snijders & Bosker, 1999). Ignoring the nested structure of the data may produce unreliable standard errors and result in misspecification of the models (Hox, 2002; Snijders & Bosker, 1999). In addition, observations from the same group are generally more similar than are observations from different groups, which violates the assumption of independence of the observations.

Table 2
Multilevel Estimates for Models Predicting Affective
Organizational Commitment

	Model 1		Model 2		Model 3	
	γ	<i>SE</i>	γ	<i>SE</i>	γ	<i>SE</i>
Fixed part						
Intercept	3.05**	.02	3.19**	.20	3.18**	.22
Gender			-.09	.05	-.09	.05
Age			.01**	.00	.01**	.00
Size team			.00**	.00	.00*	.00
Threats			-.05**	.02	-.05**	.02
Unsafe climate (U)			-.13*	.06	-.13*	.07
Peer support (CS)			.14**	.02	-.11	.12
U X CS					.09*	.05
Random part						
Level 1 intercept variance (SD)	.55	(.74)	.527	(.73)	.53	(.72)
Level 2 intercept variance (SD)	.02	(.16)	.023	(.15)	.02	(.15)
Deviance	6,290.94**		6,207.58**		6,205.867**	

Note: $N = 2,773$. After the estimation of the intercept-only model (i.e., Model 1), the variables were entered in two steps. Model 2 included gender, age, perceived peer support, and threats of workplace violence at the individual level, as well as mean unit size and unsafe climate aggregated to the unit level. In the third step, the interaction term of unsafe climate with peer support was added. Because a unit-level variable was used to predict individual-level outcomes, the Level 1 variable was grand mean centered.

* $p < .05$. ** $p < .01$.

We used the intraclass correlation coefficient as an indication of the variance explained by the grouping structure in the population. It is computed from the variance at the individual level, symbolized by σ^2_e , and the variance at the unit level, symbolized as $\sigma^2_{\text{unit level}}$, by using the following formula (Hox, 2002): $\sigma^2_{\text{unit level}} \div (\sigma^2_{\text{unit level}} + \sigma^2_e)$. The intraclass coefficient for the intercept-only model for affective organizational commitment is .04; that is, 4% of the variance is explained by the grouping structure in the population. The intraclass correlation coefficient for the intercept-only model for dedication is .12. The deviance or $-2 \log$ likelihood in Tables 2 and 3 indicates how well the models fit the data. In general, models with a relatively low deviance fit better than models with a relatively high deviance (Hox, 2002).

Table 3
Multilevel Estimates for Models Predicting Dedication

	Model 1		Model 2		Model 3	
	γ	<i>SE</i>	γ	<i>SE</i>	γ	<i>SE</i>
Fixed part						
Intercept	3.67**	.06	3.64**	.46	3.61**	.45
Gender			-.32**	.09	-.32**	.09
Age			.03**	.00	.03**	.00
Size team			.00	.00	.00*	.00
Threats			-.07**	.03	.07**	.03
Unsafe climate (U)			-.03	.00	-.25	.15
Peer support (CS)			.43**	.03	-.05	.22
U X CS					.18*	.08
Random part						
Level 1 intercept variance (SD)	1.62	(1.27)	1.44	(1.20)	1.44	(1.20)
Level 2 intercept variance (SD)	0.20	(0.45)	0.15	(0.39)	0.15	(0.39)
Deviance	9,342.06**		9,029.18**		9,025.00**	

Note: $N = 2,773$. After the estimation of the intercept-only model (i.e., Model 1), the variables were entered in two steps. Model 2 included gender, age, perceived peer support, and threats of workplace violence at the individual level, as well as mean unit size and unsafe climate aggregated to the unit level. In the third step, the interaction term of unsafe climate with peer support was added. Because a unit-level variable was used to predict individual-level outcomes, the Level 1 variable was grand mean centered.

* $p < .05$. ** $p < .01$.

After the estimation of the intercept-only model, that is, the model that contains no explanatory variables (Hox, 2002), the variables were entered in two steps. The first step included gender, age, perceived peer support, and threats of workplace violence at the individual level, as well as mean unit size and unsafe climate aggregated to the unit level. In the second step, the interaction term of unsafe climate with peer support was added. Because a unit-level variable was used to predict individual-level outcomes, the Level 1 variable was grand mean centered (Hofmann & Gavin, 1998).

To compute the proportion of variance explained at the individual level, we used the following formula (Hox, 2002): $(\sigma^2_e \text{ Model 1} - \sigma^2_e \text{ Model 2}) \div \sigma^2_e \text{ Model 1}$. Thus, the percentage of explained variance for the full model of affective organizational commitment at the individual level, $(.550 - .527) \div .550$, is 4% and for dedication, $(1.621 - 1.436) \div 1.621$, is 11%. The proportion of variance explained at the unit level is computed

Table 4
Means, Standard Deviations, and Pearson Correlations

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Affective commitment	3.07	0.76							
2. Dedication	3.65	1.36	.51**						
3. Gender	0.08	0.28	-.04*	-.09**					
4. Age	36.17	9.50	.05**	.22**	-.18**				
5. Threats	2.70	0.99	-.11**	-.12**	-.02	-.16**			
6. Size of team	32.62	22.52	.06**	-.09**	.01	-.35**	.01		
7. Unsafe climate	2.70	0.35	-.08**	-.09**	-.04**	-.17**	.36**	.02	
8. Peer support	3.97	0.85	.16**	.26**	-.01	-.09**	-.08*	.06**	.00

Note: $N = 2,773$.

* $p < .05$. ** $p < .01$.

with the following formula (Hox, 2002): $(\sigma^2_{\text{e unit Model 1}} - \sigma^2_{\text{e unit Model 2}}) \div \sigma^2_{\text{e unit Model 1}}$. The percentage of explained variance for affective organizational commitment at the unit level, $(.024 - .023) \div .024$, is 4% and for dedication, $(.202 - .150) \div .202$, is 26%.

Because commitment, dedication, support, and threats were self-reported and collected at a single point in time, Harman's one factor test was conducted to investigate the potential influence of common method variance on study results. The underlying assumption of Harman's one factor test is that if a substantial amount of common method variance exists in the data, either a single factor will emerge or one general factor will account for the majority of the variance among the variables (Podsakoff & Organ, 1986). We entered all the items of the four scales that were used into a single factor analysis. This factor analysis yielded precisely the expected four factors, and the total of four factors accounted for 69% of the variance. Factor 1 accounted for 23% of the variance. Because a single factor did not emerge and one general factor did not account for most of the variance, common method variance is unlikely to be a serious problem in the data.

Results

Table 4 presents means, standard deviations, and correlation coefficients for all measures included in the study. Affective organizational commitment and dedication are moderately and positively correlated ($r = .51$, $p < .01$).

In addition, threats of violence experienced at both the individual level and the unit level are significantly negatively associated with commitment and dedication (ranging from $r = -.09$ to $r = -.12$, $p < .01$).

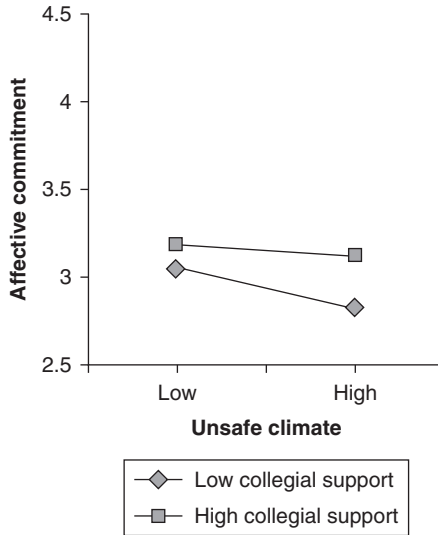
Tables 2 and 3 present the results of multilevel analyses for affective organizational commitment and dedication separately. The experience of threats at the individual level is associated with both affective organizational commitment and dedication. Thus, Hypothesis 1a is supported, showing affective organizational commitment negatively related to threats ($\gamma = -.05$, $p < .01$). Hypothesis 1b is not supported: Dedication is positively associated with the individual experience of threats ($\gamma = .07$, $p < .01$). Furthermore, when units of constabulary officers are confronted with more threats (i.e., experiencing an unsafe climate at the aggregate level), this is associated with less commitment of constabulary officers at the individual level ($\gamma = -.13$, $p < .05$), thereby lending support to Hypothesis 2a. An unsafe climate at the aggregate level is not associated with less dedication of constabulary officers ($\gamma = -.25$, *ns*); thus, Hypothesis 2b is not supported. In addition, in contrast to Hypothesis 3a, more perceived peer support is not associated with more commitment ($\gamma = -.11$, *ns*). Peer support is unrelated to dedication ($\gamma = -.05$, *ns*), contrary to Hypothesis 3b.

Crucial for the current investigation (cf. Hypothesis 4) is the cross-level interaction of an unsafe climate at the aggregate level with perceived peer support at the individual level. The proportion of variance explained by adding the cross-level interaction in Model 3 (the full model with all the variables included) for affective organizational commitment is 5%, (.550 to .523) ÷ .550. The cross-level interaction of an unsafe climate at the aggregate level with peer support for affective organizational commitment ($\gamma = .09$, $p < .05$) is supported (Hypothesis 4a). The interaction was plotted with the HLM program (see Figure 1).

As predicted in Hypothesis 4a, the negative relationship between threats of violence at the unit level and commitment is stronger for those who reported low levels of peer support than for those who reported high levels of peer support.

Table 2 shows that the cross-level interaction of an unsafe climate at the aggregate level with peer support for dedication ($\gamma = .18$, $p < .05$), as specified in Hypothesis 4b, is significant as well. Figure 2 shows the same pattern as shown for affective organizational commitment. The negative relationship between threats of violence at the unit level and dedication is stronger for those who reported low levels of peer support than for those who reported high levels of peer support.

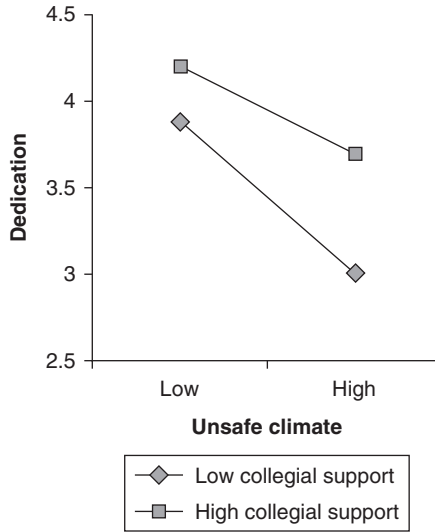
Figure 1
Graphical Presentation of the Moderating Role of Peer Support
on the Relationship Between Threats of Violence Experienced
at the Unit Level and Affective Organizational Commitment



Discussion

This study among the Dutch constabulary officers population has demonstrated negative relationships between the experience of threats of violence on one hand and organizational commitment and dedication to one's job on the other. A unique characteristic of this study is the negative association of an unsafe workplace, resulting from individual- and unit-level experiences of threats with individual-level job investments. Constabulary officers working in units in which many colleagues encountered threats of violence showed lower levels of commitment. Moreover, the effects of an unsafe climate at the aggregate level persist, even after accounting for an individual's direct exposure to threats of violence. In addition, we found that social support buffered the aggregate-level effect.

Figure 2
Graphical Presentation of the Moderating Role of Peer Support on the Relationship Between Threats of Violence Experienced at the Unit Level and Dedication



Explanation of Findings

Individual-level effects. At the individual level, employees who were confronted with threats of violence were less committed to their organization and less dedicated to their job than were employees who had not been confronted with threats of violence. Consistent with the psychological contract perspective (Robinson, 1996; Robinson & Rousseau, 1994), a decrease of investments is predicted. Employees who are confronted with threats of violence may consider being threatened to be a breach of the psychological contract (i.e., an inequity) as they perceive that their employer is not able to guarantee safety in the workplace. As mentioned, inequity occurs when—in the perception of employees—the employer has failed to adequately fulfill promised obligations (Arnold, 1996; Coyle-Shapiro, 2002). This is a distressing experience for employees, and it may strengthen employees' beliefs that obligations agreed

on have been violated (Robinson, 1996). The resulting output-input ratio may be perceived as unequal, and employees will strive to restore this inequity by decreasing commitment and dedication. Other studies also generally support this idea (e.g., Bunderson, 2001; Lester, Turnley, Bloodgood, & Bolino, 2002; Robinson, 1996; Robinson & Rousseau, 1994). For instance, Bunderson (2001) reported negative associations between perceived inequity and different outcomes, such as employees' performance, civic virtue behavior, intentions to remain with the organization, thoughts of quitting, and actual turnover.

Unit-level effects. The present study also offered new insights in the role of units when coping with threats of workplace violence. The findings show an association of unit-level phenomena, that is, an unsafe climate at the aggregate level as indicated by the cumulative experience of threats of violence by employees, with individual investment behaviors. As predicted, the experience of an unsafe and threatening working environment (Bunderson, 2001; Robinson, 1996) was also associated with less individual job investments. The psychological contract perspective may also explain the results found at the unit level. Trust between an employer and a group of employees is built over time but can be destroyed by behavior resulting in perceived psychological contract violation. Consequently, perceived unsafety may undermine the ability of groups to establish and maintain meaningful relationships at work (see Leana & Van Buren, 1999). We suggest that in teams encountering a lot of work-related threats of (or actual) violence, team members may become reluctant to invest in commitment, even when they are not personal victims of violence. This may be explained by the notion of threats of violence being compounded so that the psychological effects are not tied to any one incident but rather accumulate and jointly affect job investments (Glomb, 2002). Shared feelings of an unsafe environment perhaps can be also conceptualized as examples of "collective mood." According to Totterdell (2000), there are two obvious ways a team could experience such a collective mood. First, team members could respond similarly to shared events and therefore end up feeling similarly frustrated, thus withholding job investments. Second, team members could also affect each other's moods such that their moods converge (e.g., Bakker, Demerouti, & Schaufeli, 2003). Then, indirect effects of violence will affect the organizational commitment of individual employees, as shown by the findings of the present study.

Furthermore, although experiencing an unsafe climate at the aggregate level appeared to be associated with less commitment, unexpectedly this did not hold for dedication: An unsafe climate at the aggregate level was not associated with less dedication of the constabulary officers. Perhaps this

can be explained by the measurement of commitment and dedication. Inspection of the items of the affective organizational commitment scale reveals that these items refer more to an attitude toward the organization (e.g., “Being very happy to spend the rest of career with this organization” or “Agreeing with this organization’s policies on important matters”), whereas the items of the dedication scale refer more to an attitude toward doing one’s job (e.g., “Being enthusiastic about this job” or “Job is really challenging”). The most direct source that requires reciprocation when experiencing an unsafe climate at the aggregate level can probably be found in investments toward the organization more than toward doing one’s job. Our results suggest that the organization is viewed as the reason for the experienced lack of safety; thus, withholding of the investments would primarily be directed at the organization and less clearly directed at the job.

Buffering effects. Buffering effects of peer support were found on the negative relationship between an unsafe climate at the aggregate level and decreased job investments. Possibly, peer support heightens levels of trust, and such employees may feel their contributions will be reciprocated. Alternatively, peer support may compensate for employees’ feelings of being let down by the organization (Chrobot-Mason, 2003). Hence, peer support may prevent decreasing job investments. This buffering potential of peer support is well known at the individual level (Cohen & Wills, 1985; Cummins, 1990; Stephens & Long, 2000). Previous studies have already comprehensively shown that social support generally reduces experienced strains, mitigates perceived stressors, and moderates stressor-strain relationships (Viswesvaran et al., 1999). However, to our knowledge, this buffering effect has not been shown before at the aggregated level, and we recommend future research to include not only the individual but also the aggregate level.

Because tenure correlated highly with age ($r = .81, p < .01$), we did not include tenure in the analyses. However, one may expect the relationship between threats of violence and job investments to be stronger for those individuals who worked for the organization in the “safer, good old days.” Therefore, we ran some additional post hoc analyses with a mean split of the file creating a long tenure and a short tenure group (cutoff point for long and short tenure groups was mean tenure of 13 years). The relationship between threats and affective organizational commitment is indeed stronger for the high tenure group ($\gamma = -.06, p < .05$) than for the low tenure group ($\gamma = -.03, ns$). Also, the relationship between threats and dedication is stronger for the high tenure group ($\gamma = -.08, p < .05$) than for the low tenure

group ($\gamma = .05, ns$). This further lends support to the psychological contract perspective in that more senior employees would be more likely to feel that an existing psychological contract has been violated.

The findings of this study suggest that, in addition to a direct association of employees' experienced violence with decreased job investments, there is also unit-level effect. Perhaps this can be explained as the experienced violence by colleagues being vicariously carried over to individual employees (Bakker et al., 2003). Such carryover may also occur more consciously by tuning in to the emotions and attitudes of others. This would be the case when a person tries to imagine how he or she would feel in the position of another and, as a consequence, experiences the same feelings (Bakker et al., 2003; Bakker & Schaufeli, 2000; Hsee, Hatfield, Carlson, & Chemtob, 1990).

When organizations are confronted with threats of violence, most frequently interventions are aimed at the individual level or by pushing back the influence of various environmental factors, such as identifying high-risk situations and potential hazards for individual employees. Other efforts aimed at the individual level include different types of psychological assistance. For instance, debriefing or counseling following workplace violence is offered (Keim, 1999). Our results suggest that team-based interventions may also be effective, especially in violence-prone units. Such team-based interventions may enhance feelings of "together being strong" and may prevent adverse consequences of going through threats of workplace violence. Therefore, it is important to identify units that are most at risk to encounter threats of workplace violence and to direct interventions to those units.

Finally, the effects of threats of workplace violence have been predominantly studied within specific high-risk occupational groups such as state police personnel (Driscoll et al., 1995), teachers (Dworkin, Haney, & Telschow, 1988), bus drivers (Van Dierendonck & Mevissen, 2002), and hospital staff (Schat & Kelloway, 2000), but it seems obvious that threats of workplace violence are not limited to these occupations (Driscoll et al., 1995). Further, although groups at high risk for threats of workplace violence may share similar characteristics such as interactions with clients, patients, or the public in general, there may also be differences between these groups. Different types of workplace violence (e.g., homicide vs. nonfatal workplace violence) may be faced. For example, groups such as health care workers are not at elevated risk of workplace homicide, but they are at greatly increased risk of nonfatal assaults (National Institute for Occupational Safety and Health, 1996; OSHA, 2002). Thus, although our findings are consistent with psychological contract theory, future research aimed at directly testing this model should explicitly measure psychological contracts.

Limitations and Directions for Future Research

The use of self-report measures raises the issue of common method variance, which was addressed with Harman's one factor test. Harman's test indicated that common method variance was unlikely to be a serious problem for the present data. Further, because of the cross-sectional design, we are reluctant to suggest causal relationships from the analyses, and we caution against any causal interpretation of the results. For instance, it is not possible to know whether decreased commitment and dedication were present prior to the reported threats of violence, in which case the confrontation with threats of workplace violence may have exacerbated a preexisting condition, or if the confrontation with threats of violence was indeed the cause of these conditions (Driscoll et al., 1995). Consequently, it is recommended to examine these issues more in depth using longitudinal designs in future studies.

The respondents were asked whether they were confronted with threats of physical violence that were personally directed at them. This is a rather general question, and perhaps when this question is split up into different types of violence (e.g., external violence vs. violence from colleagues or differentiating between severity), a more detailed picture would emerge (Neuman & Baron, 1998). For instance, sexual harassment at work by colleagues may have more and different effects than threats of workplace violence encountered by detainees at airports, and this may also be markedly different from running into terrorists on peace-keeping missions. Hence, it is possible that the magnitude of encountering violence is underestimated when no such differentiation among types of threats is made. In contrast with other recent studies on workplace violence (e.g., Andersson, 1999; Dietz, Robinson, Folger, Baron, & Schulz, 2003; Glomb & Liao, 2003; Greenberg & Barling, 1999), this study did not examine factual interpersonal violence but instead threats of violence encountered by constabulary officers. Experiencing vicarious violence (Schat & Kelloway, 2003), that is, an unsafe climate at the aggregate level by the cumulative experience of threat by employees, can perhaps be thought of as facing a common enemy, and it has been shown that this has consequences for employees' attitudes that may be buffered by peer support as well.

Workplace violence may be associated with commitment and dedication through psychological contract breaches. However, we measured neither the contents of employees' psychological contracts nor the extent of actual psychological contract breach, and we suggest that future research should include the contents of the psychological contracts.

Although our results were statistically significant, many were of rather small magnitude. Furthermore, our analyses were based on constabulary officers, perhaps limiting the generalizability of the findings. For instance, in contrast with most other high-risk occupational groups, one may argue that encountering threats of violence of constabulary officers may be considered—at least partly—to be an inevitable part of the job of constabulary officers. However, this study does show that an unsafe climate at the aggregate level was associated with decreased job investments, and this may also hold for other high-risk occupational groups. It is noteworthy that threats of violence might be beyond the control of management (Dietz et al., 2003). However, providing social support is thought to be one of the most important elements of programs for treating the consequences of threatened, assaulted, or harassed employees (Driscoll et al., 1995; Flannery, 1999). Because the present study took place within one specific occupation, future research should explore similarities and dissimilarities of occupations. For instance, members of those occupations in which members are trained to deal with violence (police) or with a wide range of clients (hospitals, bus drivers, etc.) may be expected to face different issues regarding coping with workplace violence than those working in occupations new to threats of violence.

Job investments were lowest for those employees at violence-prone units with low peer support. Apparently, if peer support is available, an unsafe climate at the aggregate level does not necessarily signify psychological contract breach, with the accompanying downward work perceptions and associated decrease in job investments. Peer support is important to buffer adverse working conditions within the unit. Such evoked feelings of being strong together and supporting each other under difficult circumstances, or perhaps the experience of companionship in stressful situations, correspond with the findings of Driscoll et al. (1995) that employees who have been assaulted benefit from the support and understanding of their colleagues. Future researchers should examine whether the results of the present study extend beyond poor job attitudes when employees perceive that their organizations have not lived up to their commitments. For instance, they may actually take sick leave or find a new employer.

In conclusion, threats of violence are increasing in many occupations. We found these threats to have detrimental effects, not only at the individual but also at the unit level. The promising outcome of this study is that support in teams buffers negative outcomes of threats of violence. It is usually difficult for organizations to change the environment in such a way that threats of violence are reduced. However, it is very well possible to support teams in creating a supportive environment.

References

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational & Organizational Psychology*, 63(1), 1-17.
- Andersson, L. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24, 452-471.
- Arnold, J. (1996). The psychological contract: A concept in need of closer scrutiny. *European Journal of Work and Organizational Psychology*, 5, 511-520.
- Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2003). The socially induced burnout model. In S. P. Shohov (Ed.), *Advances in psychology research* (Vol. 25, pp. 13-30). New York: Nova Science.
- Bakker, A. B., & Schaufeli, W. B. (2000). Burnout contagion processes among teachers. *Journal of Applied Social Psychology*, 30, 2289-2308.
- Bliese, P. D., & Jex, S. M. (1999). Incorporating multiple levels of analysis into occupational stress research. *Work and Stress*, 13(1), 1-6.
- Budd, J. W., Arvey, R. D., & Lawless, P. (1996). Correlates and consequences of workplace violence. *Journal of Occupational Health Psychology*, 1, 197-210.
- Bunderson, J. S. (2001). How work ideologies shape the psychological contracts of professional employees: Doctor's responses to perceived breach. *Journal of Organizational Behavior*, 22, 717-741.
- Cartwright, S., & Cooper, C. L. (1996). Public policy and occupational health psychology in Europe. *Journal of Occupational Health Psychology*, 1, 349-361.
- Chrobot-Mason, D. L. (2003). Keeping the promise: Psychological contract violations for minority employees. *Journal of Managerial Psychology*, 18(1), 22-45.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Coyle-Shapiro, J. A. M. (2002). A psychological contract perspective on organizational citizenship behavior. *Journal of Organizational Behavior*, 23, 927-946.
- Cummins, R. C. (1990). Job stress and the buffering effect of supervisory support. *Group & Organization Management*, 15(1), 92-104.
- Dietz, J., Robinson, S. L., Folger, R., Baron, R. A., & Schulz, M. (2003). The impact of community violence and an organization's procedural justice climate on workplace aggression. *Academy of Management Journal*, 46, 317-326.
- Driscoll, R. J., Worthington, K. A., & Hurrell, J. J. (1995). Workplace assault: An emerging job stressor. *Consulting and Psychology: Practice and Research*, 47, 205-212.
- Dworkin, A. G., Haney, C. A., & Telschow, R. L. (1988). Fear, victimization, and stress among urban public school teachers. *Journal of Organizational Behavior*, 9, 159-171.
- Eisenberger, R., Fasolo, P., & Davis LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75(1), 51-59.
- Flannery, R. B. (1999). Critical incident stress management and the assaulted staff action program. *International Journal of Emergency Mental Health*, 2, 103-108.
- Frese, M., & Zapf, D. (1988). Methodological issues in the study of work stress: Objective vs subjective measurement of work stress and the question of longitudinal studies. In C. L. Cooper & R. Payne (Eds.), *Causes, coping and consequences of stress at work* (pp. 375-411). Chichester, UK: Wiley.

- Glomb, T. M. (2002). Workplace anger and aggression: Informing conceptual models with data from specific encounters. *Journal of Occupational Health Psychology, 7*(1), 20-36.
- Glomb, T. M., & Liao, H. (2003). Interpersonal aggression in work groups: social influence, reciprocal, and individual effects. *Academy of Management Journal, 46*, 486-496.
- Goldberg, C. B. (2001). The impact of the proportion of women in one's workgroup, profession, and friendship circle on males' and females' responses to sexual harassment. *Sex Roles, 45*, 359-374.
- Greenberg, L., & Barling, J. (1999). Predicting employee aggression against coworkers, subordinates and supervisors: The roles of person behaviors and perceived workplace factors. *Journal of Organizational Behavior, 20*, 897-913.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management, 24*, 623-641.
- Hox, J. J. (2002). *Multilevel analysis: Techniques and applications*. London: Lawrence Erlbaum.
- Hsee, C. K., Hatfield, E., Carlson, J. G., & Chemtob, C. (1990). The effect of power on susceptibility to emotional contagion. *Cognition and Emotion, 4*, 327-340.
- Iverson, R. D., Olekalns, M., & Erwin, P. J. (1998). Affectivity, organizational stressors, and absenteeism: A causal model of burnout and its consequences. *Journal of Vocational Behavior, 52*(1), 1-23.
- Jawahar, I. M. (2002). A model of organizational justice and workplace aggression. *Journal of Management, 28*, 811-834.
- Keim, J. (1999). Workplace violence and trauma: A 21st century rehabilitation issue. *Journal of Rehabilitation, 65*(1), 15-20.
- Knapp, D. E., Faley, R. H., Ekeberg, S. E., & Dubois, C. L. Z. (1997). Determinants of target responses to sexual harassment: A conceptual framework. *Academy of Management Review, 22*, 687-729.
- Lawoko, S., Soares, J. J. F., & Nolan, P. (2004). Violence towards psychiatric staff: A comparison of gender, job and environmental characteristics in England and Sweden. *Work & Stress, 18*, 39-55.
- Leana, C. R., & Van Buren, H. J. (1999). Organizational social capital and employment practices. *Academy of Management Review, 24*, 538-555.
- LeBlanc, M. M., & Kelloway, E. K. (2002). Predictors and outcomes of workplace violence and aggression. *Journal of Applied Psychology, 87*, 444-453.
- Le Blanc, P., De Jonge, J., & Schaufeli, W. B. (2000). Job stress and health. In N. Chmiel (Ed.), *Introduction to work and organizational psychology: A European perspective* (pp. 148-177). Oxford: Blackwell.
- Lester, S. W., Turnley, W. H., Bloodgood, J. M., & Bolino, M. C. (2002). Not seeing eye to eye: Differences in supervisor and subordinate perceptions of and attributions for psychological contract breach. *Journal of Organizational Behavior, 23*(1), 39-56.
- Levy, D. A., & Nail, P. R. (1993). Contagion: A theoretical and empirical review and reconceptualization. *Social & General Psychology Monographs, 119*, 235-284.
- Lichtenstein, R., Alexander, J. A., Jinnett, K. J., & Ullman, E. (1997). Embedded intergroup relations in interdisciplinary teams. *Journal of Applied Behavioral Science, 33*, 4130-4435.
- Mayhew, C., & Chappell, D. (2002). An overview of occupational violence. *Australian Nursing Journal, 9*(7), 34-35.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20-52.

- Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22(1), 226-256.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224-247.
- National Institute for Occupational Safety and Health. (1996). *Violence in the workplace: Risk factors and prevention strategies*. Washington, DC: Author.
- Neuman, J. H., & Baron, R. A. (1998). Workplace violence and workplace aggression: Evidence concerning specific forms, potential causes, and preferred targets. *Journal of Management*, 24, 391-419.
- Norris, F. H., & Kaniasty, K. (1994). Psychological distress following criminal victimization in the general population: Cross-sectional, longitudinal, and prospective analyses. *Journal of Consulting and Clinical Psychology*, 62(1), 111-123.
- Occupational Safety and Health Administration. (2002). *Workplace violence: OSHA summary sheet*. Washington, DC: Author.
- Podsakoff, P., & Organ, D. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 531-544.
- Raven, B. H., & Rubin, J. Z. (1983). *Social psychology*. New York: John Wiley.
- Robinson, S. L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly*, 41, 574-600.
- Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*, 37(1), 137-152.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior*, 15, 245-259.
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2, 121-139.
- Rousseau, D. M., & Tijoriwala, S. A. (1998). Assessing psychological contracts: Issues, alternatives and measures. *Journal of Organizational Behavior*, 19, 679-695.
- Schat, A. C. H., & Kelloway, E. K. (2000). Effects of perceived control on the outcomes of workplace aggression and violence. *Journal of Occupational Health Psychology*, 5, 386-402.
- Schat, A. C. H., & Kelloway, E. K. (2003). Reducing the adverse consequences of workplace aggression and violence: The buffering effects of organizational support. *Journal of Occupational Health Psychology*, 8(2), 110-122.
- Schaufeli, W. B., Salanova, M., Gonzalez Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81, 219-227.
- Shakespeare-Finch, J., Smith, S., & Obst, P. (2002). Trauma, coping resources, and family functioning in emergency services personnel: A comparative study. *Work and Stress*, 16, 275-282.
- Snijders, T., & Bosker, R. (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modelling*. London: Sage.
- Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. *International Review of Industrial and Organizational Psychology*, 7, 123-151.
- Stephens, C., & Long, N. (2000). Communication with police supervisors and peers as a buffer of work-related traumatic stress. *Journal of Organizational Behavior*, 21, 407-424.

- Swanen, G. M. H., Kant, I., Amelvoort, L. G. P. M. v., & Beurskens, A. J. H. M. (2002). Job mobility, its determinants, and its effects: Longitudinal data from the Maastricht Cohort Study. *Journal of Occupational Health Psychology, 7*, 121-129.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analysis based on meta-analytic findings. *Personnel Psychology, 46*, 259-293.
- Totterdell, P. (2000). Catching moods and hitting runs: Mood linkage and subjective performance in professional sport teams. *Journal of Applied Psychology, 85*, 848-859.
- Turnley, W. H., Bolino, M. C., Lester, S. W., & Bloodgood, J. M. (2003). The impact of psychological contract fulfillment on the performance of in-role and organizational citizenship behaviors. *Journal of Management, 29*, 187-206.
- Van der Ploeg, E., Dorresteyn, S. M., & Kleber, R. J. (2003). Critical incidents and chronic stressors at work: Their impact on forensic doctors. *Journal of Occupational Health Psychology, 8*, 157-166.
- Van Dierendonck, D., & Mevissen, N. (2002). Aggressive behavior of passengers, conflict management behavior, and burnout among trolley car drivers. *International Journal of Stress Management, 9*, 345-355.
- Van Dyne, L., & Ang, S. (1998). Organizational citizenship behavior of contingent workers in Singapore. *Academy of Management Journal, 41*, 692-703.
- Van Emmerik, IJ. H. (2002). Gender differences in the effects of coping assistance on the reduction of burnout. *Work and Stress, 16*, 251-263.
- Viswesvaran, C., Sanchez, J. L., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behavior, 54*, 314-334.

IJ. Hetty van Emmerik (PhD, business administration, Free University, Amsterdam, 1991) is an associate professor at the Department of Sociology, Utrecht University, the Netherlands. Her research interests broadly include social relationships within organizations (e.g., mentoring, networking, social support issues) and various career outcomes (e.g., satisfaction, commitment, burnout).

Martin C. Euwema, PhD, is an associate professor of organizational psychology at the Department of Social and Organizational Psychology, Utrecht University, the Netherlands. His research interests include organizational behavior and change management, conflict management, and cross-cultural studies on leadership and team performance.

Arnold B. Bakker, PhD, is professor of positive organizational behavior at the Department of Social and Organizational Psychology, Utrecht University, the Netherlands. He graduated from Groningen University and published several articles on the job demands-resources model, attitudes, and burnout. His research interests include work engagement, crossover, and organizational performance.