

Social Interactions and Feelings of Inferiority Among Correctional Officers: A Daily Event-Recording Approach

MARIA C. W. PEETERS¹

University of Nijmegen, The Netherlands

BRAM P. BUUNK

University of Groningen, The Netherlands

WILMAR B. SCHAUFELI

Utrecht University, The Netherlands

A daily event-recording method, referred to as the Daily Interaction Record in Organizations (DIRO) was employed for assessing the influence of three types of social interaction on negative affect at work. For this purpose, 38 correctional officers (COs) completed forms, for a 1-week period, that described their social interactions and stressful events at work. Moreover, the forms measured the negative feelings of COs both at the beginning and at the end of the workday. The results showed that each type of social interaction had a different effect on negative affect at the end of the day. Instrumental support showed an adverse effect on negative affect because this type of support appeared to induce feelings of inferiority, which in turn led to negative affect. Rewarding companionship appeared to have a positive effect, whereas intimate support showed no effect at all on negative affect. It is concluded that a micro-analytic approach offers interesting possibilities for fine-grained analyses of daily occurring social interactions and psychological mechanisms involved in social support as related to negative affect.

Support from colleagues or supervisors may be one of the most important factors ameliorating stress in the workplace. Numerous studies have examined the so-called buffering and direct effects of social support at work (for a more extensive reviewing see Buunk, 1990). However, despite the still growing literature on this topic, the results of research efforts are somewhat equivocal since some contradictory findings have been reported. Moreover, most studies on social support and occupational stress have not been guided by a clear theoretical rationale. However, the focus of research in this area is changing. More and more, occupational stress researchers are focusing on the social psychological processes that underlie the effects of social support at work on stress and well-being (cf. Buunk & Peeters, 1994).

¹Correspondence concerning this article should be addressed to Maria C. W. Peeters, University of Nijmegen, Department of Work and Organizational Psychology, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands.

1073

Journal of Applied Social Psychology, 1995, 25, 12, pp 1073-1089
Copyright © 1995 by V. H. Winston & Son, Inc. All rights reserved.

In the mid-1980s, the absenteeism rate among Dutch COs was 15%, against 8.5% for all other occupations. It appeared that about one third of the absenteeism of COs was stress-related (Verhagen, 1986). Moreover, more than half of the Dutch officers who are work disabled receive their pensions based on mental-health grounds (Schaufeli, 1993).

Both inside and outside the Netherlands, probably one of the most stressful aspects of the job of COs is the lack of social support from superiors and the unsatisfying relationships with colleagues (cf. Kommer, 1991; Poole & Regoli, 1980, 1981). With regard to relationships with colleagues, Poole and Regoli (1981) argue that within prisons an individualistic "macho" culture exists in which COs do not like to be supported by their colleagues because that could give others the impression that they lack the ability to make autonomous decisions. From this point of view, a study examining the influence of actual daily social interactions² upon negative affect among COs seems rather relevant.

Although there may be a large variety of social interactions at work, two earlier empirical studies with the DIRO showed that the social interactions of police officers (Buunk & Verhoeven, 1991) and secretaries (Peeters, Buunk, & Schaufeli, in press) are characterized by three dimensions that could be labeled as (a) *intimate support* (i.e., emotional support in a confidential context), (b) *instrumental support*, and (c) *rewarding companionship*. The latter refers to a type of social interaction that, although not primarily help-oriented, may have a supportive function (Rook, 1990).

The main issue examined in the present study concerns the role of these different dimensions of social interaction in preventing negative affect at the end of the workday. As outlined before, the evidence for the beneficial effects of social support at work upon well-being is somewhat contradictory. The degree of social support at work is only modestly related to indicators of mental health, such as the absence of negative affect, whereas significant associations with more objective health indicators are rarely found (for exceptions, see the work of Karasek & Theorell, 1990). Moreover, social support sometimes appears to be unrelated or even positively related to stress (Buunk, 1990). For example, in a study among prison officers, Burke (1982) found that 31% of the correlations between social support and indicators of occupational stress were positive instead of negative. Grossi and Berg (1991) found, in their study of 106 correctional officers, that peer support increased the level of work stress. However, most attention in research on social support and occupational stress has not been aimed at establishing such direct effects, but at examining buffering effects of support on strains. A buffering effect is, in statistical terms, a

²Only positively intended interactions are included. Negative social interactions (i.e., conflicts and quarrels) are recorded as stressful events

between the two groups with regard to the period of employment as a CO. The COs in the half-open prison were employed as an officer for an average of 3 years ($SD = 1.6$) whereas the COs from the closed prison were employed as COs for an average of 12.8 years ($SD = 6.3$), $t(16.48) = -6.08$, $p < .001$. All respondents worked 38 hours a week excluding overtime hours. On the average COs from the half-open prison spent 82% of their time working with prisoners, whereas COs from the closed prison spend only 59% of their time working with prisoners, $t(17.02) = 2.6$, $p < .05$. However, no significant differences were found between the two institutions with regard to crucial variables such as the number of social contacts and the number of stressful events (respectively, $t[36] = .57$, ns ; $t[36] = .17$, ns). Therefore, in the following, the COs of the two prisons were treated as one group.

Procedure

The DIRO was used as a method for data collection. First, the COs received a letter in which the study was introduced. Next, the first author visited some team meetings in which she explained the purpose and procedure of the study. The anonymity and confidentiality of the data were emphasized. In accordance with Cutrona (1986) and Buunk and Verhoeven (1991), a total sample of approximately 40 COs was assumed to be satisfactory. The respondents were asked to fill out the DIRO during 5 consecutive workdays. It was emphasized that it was important to fill out the DIRO at the end of the day. They were urged to be very accurate in their record keeping and to skip a day rather than record data retrospectively on the next day.

Instruments

The DIRO included three forms. First, the *Daily Negative Affect Record* consists of a scale assessing the degree to which a CO experiences a number of negative and positive feelings both at the beginning and at the end of each workday (positive feelings were recoded; Cronbach's α [beginning] = .88; Cronbach's α [end] = .90). The scale was specially developed for measuring job-related negative affect (Warr, 1990). It contains such emotional descriptors as tense, depressed, gloomy, cheerful, etc. Second, on the *Daily Stressful Event Record*, the COs were asked to record any stressful event that happened during working hours and that had left them feeling upset for two hours or more (cf. Cutrona, 1986). The third form was the *Social Interaction Record*. As in the study of Cutrona and in all other studies conducted with the Rochester Interaction Record (e.g., Nezelek, Wheeler, & Reis, 1983), participants were asked to record each social interaction that lasted 10 min or more. An interaction was defined as a social encounter in which one talked to someone or was engaged

Table 2

Mean Scores on the Degree of Supportiveness of a Social Interaction

	Supervisor (<i>n</i> = 29)	Colleague (<i>n</i> = 162)	Prisoner (<i>n</i> = 98)	Others (<i>n</i> = 26)
Intimate support	3.1 ^{ad}	3.0 ^{ab}	2.5 ^c	2.6 ^{cd}
Instrumental support	2.5 ^a	2.4 ^a	1.8 ^b	2.3 ^a
Rewarding companionship	2.5 ^{ab}	2.9 ^a	2.4 ^b	2.8 ^{ab}

Note. Scores with different superscripts differ significantly from each other ($p < .05$).

Table 3

Within-Subject Correlations Between Support-Related Social Interactions, Number of Stressful Events, and Negative Affect

	2	3	4	5
1. Negative affect	.47***	.20	-.41*	.12
2. Number of stressful events		.43*	-.32	.36
3. Instrumental support			.08	.80***
4. Rewarding companionship				.08
5. Intimate support				

Note. For computing the statistical significance of the within-subject correlations we used Table V. A. of Fisher and Yates (1963). $df = n - 2$ where n refers to the number of subjects who have valid scores on more than one day.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Finally, these average Z s were converted back to correlations (Emmons, 1991). The results are presented in Table 3.

Table 3 shows that the number of stressful events had the highest correlation with negative affect. On days the COs encountered the most stressful events, they also experienced the most negative affect at the end of the day. Besides this, only the correlation between negative affect and rewarding companionship was significant. Moreover, this correlation appeared to be negative, indicating that on days when subjects reported more rewarding companionship,

Table 4

Three Hierarchical Regression Analyses Predicting the Change in Negative Affect During a Day (N = 129)

Predictor variables	β	R ² -change
Step 1. Negative affect at the beginning of the day	.31**	.28***
Step 2. Dummy variables		.22
Step 3. Number of stressful events	.27*	
Rewarding companionship	.07	.03
Step 4. Rewarding Companionship \times Number of Stress	-.14	.01
Total explained variance		.54
Step 1. Negative affect at the beginning of the day	.32**	.28***
Step 2. Dummy variables		.22
Step 3. Number of stressful events	.28*	
Intimate support	.04	.03
Step 4. Intimate Support \times Number of Stress	-.01	.00
Total explained variance		.53
Step 1. Negative affect at the beginning of the day	.28**	.27***
Step 2. Dummy variables		.22
Step 3. Number of stressful events	.25*	
Instrumental support	.15	.03
Step 4. Instrumental Support \times Number of Stress	.19*	.02*
Total explained variance		.56

* $p < .05$. ** $p < .01$. *** $p < .001$.

functioning as a buffer against stress. Although not significant, the sign of the interaction effect of rewarding companionship was in the right direction.

Feelings of Inferiority

The final question to be examined is whether social support is only

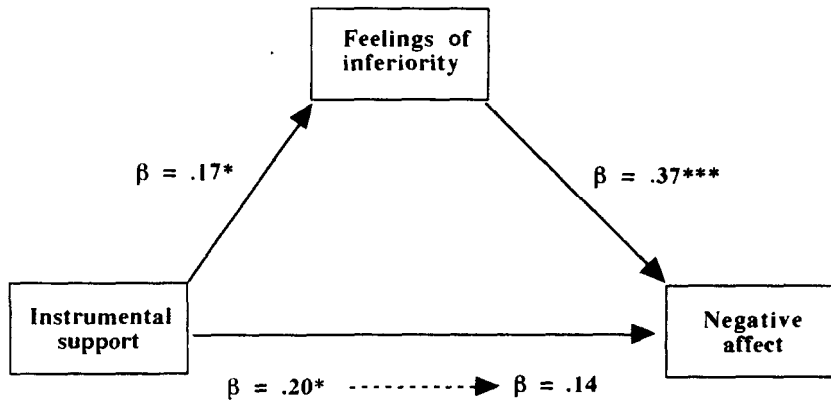
* $p < .05$ *** $p < .001$

Figure 1. Regression model for testing mediation.

beneficial when it does *not* lead to feelings of inferiority. To be more specific, we expected that support leads to more or less feelings of inferiority, which in turn, leads to more or less negative affect. In statistical terms, this refers to the operation of a mediator effect. Hierarchical regression analyses were executed to determine if feelings of inferiority indeed functions as a mediator variable between the support variables on the one hand and negative affect on the other, thereby following the procedure proposed by Baron and Kenny (1986). Since the former regression analyses had shown that only instrumental support related significantly to negative affect (Table 4), only this variable was included in the following analyses. Especially because instrumental support shows an adverse effect on negative affect, the present analyses are interesting. The regression model is presented in Figure 1.

According to Baron and Kenny (1986), a variable functions as a mediator if (a) the relation between the independent and mediator variable is significant, (b) the relation between the mediator and the dependent is significant, and (c) when a and b are controlled for, a previously significant relation between the independent and dependent variable is no longer significant, with the strongest demonstration of mediation when this relation becomes zero. When applying these conditions to the regression model in Figure 1, it can be concluded that feelings of inferiority indeed functions as a mediator, which can explain the counterintuitive relation between instrumental support and negative affect (Table 4). Receiving instrumental support apparently leads to feelings of inferiority, which, in turn, induces negative affect.

relatively few social interactions, it was also not warranted to distinguish between different sources of social interaction. On the other hand, one has to keep in mind that the respondents were instructed to record only those support-related interactions that had lasted longer than 10 min.

In general, however, we consider the DIRO as a valuable method because it enables us to study the concepts of social interaction and occupational stress more objectively than ordinary questionnaire research does, in the sense that it requires less emotional and cognitive processing by the subjects (Frese & Zapf, 1988). In addition, the present study suggests the relevance of research in which the potential negative effects of positively intended social interactions are *not* ignored. Hence, we conclude that a micro-analytic approach offers particularly interesting possibilities for fine-grained analyses of the naturally occurring social interaction processes, as related to occupational stress.

References

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Bolger, N., DeLongis, A., Kessler, R. C., & Schilling, E. A. (1989). Effects of daily stress on mood. *Journal of Personality and Social Psychology*, *57*, 808-818.
- Burke, R. J. (1982). Impact of occupational demands on nonwork experiences. *The Journal of Psychology*, *112*, 195-211.
- Buunk, B. P. (1990). Affiliation and helping interactions within organizations: A critical analysis of the role of social support with regard to occupational stress. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 1, pp. 293-322). Chichester, England: John Wiley & Sons.
- Buunk, B. P., Janssen, P. P. M., & VanYperen, N. W. (1989). Stress and affiliation reconsidered: The effects of social support in stressful and non-stressful work units. *Social Behaviour*, *4*, 155-171.
- Buunk, B. P., & Peeters, M. C. W. (1994). Stress at work, social support and companionship: Towards an event-contingent recording approach. *Work & Stress*, *8*, 177-190.
- Buunk, B. P., & Schaufeli, W. B. (1993). Professional burnout: A perspective from social comparison theory. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 53-69). Washington, DC: Taylor & Francis.
- Buunk, B. P., & Verhoeven, K. (1991). Companionship and support in organi-

- zations. A microanalysis of the stress-reducing features of social interaction. *Basic and Applied Social Psychology*, **12**, 243-258.
- Caspi, A., Bolger, N., & Eckenrode, J. (1987). Linking person and context in the daily stress process. *Journal of Personality and Social Psychology*, **52**, 184-195.
- Cheek, F. E., & Miller, M. (1983). The experience of stress for correctional officers: A double blind theory of correctional stress. *Journal of Criminal Justice*, **11**, 105-120.
- Cohen, S., & Wills, A. P. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, **98**, 310-357.
- Cutrona, C. E. (1986). Behavioral manifestations of social support: A microanalytic investigation. *Journal of Personality and Social Psychology*, **51**, 201-208.
- Cutrona, C. E., Cohen, B. B., & Igram, S. (1990). Contextual determinants of the perceived supportiveness of helping behaviors. *Journal of Social and Personal Relationships*, **7**, 553-562.
- Dakof, G. A., & Taylor, S. E. (1990). Victims' perceptions of social support: What is helpful from whom? *Journal of Personality and Social Psychology*, **58**, 80-89.
- Dignam, J. T., Barrera, M., & West, S. T. (1986). Occupational stress, social support and burnout among correctional officers. *American Journal of Community Psychology*, **14**, 177-193.
- Duck, S., Rutt, D. J., Hurst, M. H., & Strejc, H. (1991). Some evident truths about conversations in everyday relationships. All communications are not equal. *Human Communication Research*, **18**, 228-267.
- Emmons, R. A. (1991). Personal strivings, daily life events and psychological and physical well-being. *Journal of Personality*, **59**, 453-472.
- Epstein, S. (1983). A research paradigm for the study of personality and emotions. In M. M. Page (Ed.), *Nebraska Symposium on Motivation* (pp. 91-154). Lincoln, NE: University of Nebraska Press.
- Ferguson, G. A. (1971). *Statistical analysis in psychology and education*. New York, NY: McGraw-Hill.
- Fisher, J. D., Nadler, A., & Whitcher-Alagna, S. (1982). Recipient reactions to aid. *Psychological Bulletin*, **91**, 27-54.
- Fisher, R. A., & Yates, F. (1963). *Statistical tables for biological, agricultural, and medical research*. Edinburgh, Scotland: Oliver & Boyd.
- Fogel, D. (1979). ". . . *We are the living proof* . . .": *The justice model for corrections*. Cincinnati, OH: Anderson.
- 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,*

- Poole, E. D., & Regoli, R. M. (1980). Examining the impact of professionalism on cynism, role conflict, and work alienation among prison guards. *Criminal Justice Review*, *5*, 56-65.
- Poole, E. D., & Regoli, R. M. (1981). Alienation in prison. An examination of the work relations of prison guards. *Criminology*, *19*, 251-270.
- Reis, H. T. (1987). Gender effects in social participation: Intimacy, loneliness, and the conduct of social interaction. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships* (pp. 91-108). Hillsdale, NJ: Lawrence Erlbaum
- Reis, H. T., & Wheeler, L. (1991). Studying social interactions with the Rochester Interaction Record. *Advances in Experimental Social Psychology*, *24*, 269-318.
- Reis, H. T., Wheeler, L., Kernis, M. H., Spiegel, N., & Nezelek, J. (1985). On specificity in the impact of social participation on physical and psychological health. *Journal of Personality and Social Psychology*, *48*, 456-471.
- Repetti, R. L. (1993). Short-term effects of occupational stressors on daily mood and health complaints. *Health Psychology*, *12*, 125-131.
- Rook, K. S. (1987). Social support versus companionship: Effects on life stress, loneliness and evaluations by others. *Journal of Personality and Social Psychology*, *52*, 1132-1147.
- Rook, K. S. (1990). Social relationships as a source of companionship: Implications for older adults' psychological well-being. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 219-250). New York, NY: John Wiley & Sons.
- Schaufeli, W. B. (1993, March 26-28). *Burnout: The new pathology among correctional officers*. Paper presented at the International Conference on Prison institutions, Madrid, Spain.
- Verhagen, J. (1986). Stress in de werksituatie van bewaarders [Stress at the workplace of correctional officers]. *Balans*, *9*, 20-22.
- Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology*, *63*, 193-210.
- Wheeler, L., & Reis, H. T. (1991). Self-recording of everyday life events: origins, types and uses. *Journal of Personality*, *59*, 339-354.
- Wortman, C. (1984). Social support and the cancer patient. *Cancer*, *53*, 2339-2360.