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

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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).

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In addition, although most research on social support and occupational stress has relied on global self-report measures, several authors have called for a more fine-grained analysis of aspects of social interaction that affect stress and well-being (cf. Cutrona, 1986; Hobfoll, 1985; Reis, Wheeler, Kernis, Spiegel, & Nezlek, 1985; Wortman, 1984). Both within the field of personal relationships (cf. Duck, Rutt, Hurst, & Strejc, 1991; Reis & Wheeler, 1991) and within the field of stressful events and daily mood (cf. Bolger, DeLongis, Kessler, & Schilling, 1989; Caspi, Bolger, & Eckenrode, 1987), daily recording methods have already produced theoretically interesting results. It is therefore striking that up till now, virtually no studies using a daily recording method have been conducted within a work setting (for an exception, Repetti, 1993). For this purpose, Buunk and Verhoeven (1991) developed a method referred to as the Daily Interaction Record in Organizations (DIRO). The DIRO is based on the Rochester Interaction Record (Wheeler & Reis, 1991) and the work of Cutrona. With the DIRO, it is possible to assess during the course of a week: (a) the characteristics of all significant support-related social interactions at work, (b) the number and nature of stressful events, and (c) the negative affect experienced at the beginning and at the end of the workday as an indicator of strain. By employing a daily event-recording method, the present research allows the examination of within-subjects associations between variables (Michela, 1990). Within-subject research has the purpose of providing information on relations within a single individual and elucidating psychological processes (Epstein, 1983).

The general purpose of the present study was to examine, by using the DIRO, the influence of support-related social interactions of correctional officers (COs) upon stressful events and negative affect of COs, in two Dutch prisons. The Dutch prison system is often regarded as exemplary in two ways: the relatively small number of prisoners within one institution, and the relatively high quality of life within the prison. Prisoners are not, in the first place, seen as objects that should be locked up, but as people who should be treated humanely (Kommer, 1991). The Dutch prison policy requires much energy and especially a great resilience from the employees who have to implement this policy—the COs. Although large differences exist between Dutch and American prisons, researchers seem to agree that the job of a CO is stressful. Results from various studies show that COs report high degrees of role conflict as a result of the dualistic character of the job, fulfilling both security and treatment functions (cf. Dignam, Barrera, & West, 1986; Lindquist & Whitehead, 1986; Poole & Regoli, 1980). Another important stressor in the work of COs is role ambiguity as a result of vagueness regarding the treatment task (cf. Cheek & Miller, 1983; Fogel, 1979; Pogebrin & Atkins, 1982). In the Netherlands, absenteeism rates among COs are nearly twice as high as the country’s average.
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 interactions 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

2 Only positively intended interactions are included. Negative social interactions (i.e., conflicts and quarrels) are recorded as stressful events.
specific interaction effect; it refers to those instances where a particular strong relationship between social support and health is found among individuals who are confronted with stressful conditions. Despite the large number of interaction effects that are usually tested, many studies report either no buffering effects at all, or the number of significant effects hardly exceeds what one would expect on the basis of chance. For example, Dignam et al. (1986) reported, in a study of 166 COs no more than one significant interaction effect out of a total of 10 interactions examined. Given the variety in potential effects of social interaction, the present study intended to establish whether social interactions primarily have a buffering effect or a direct effect, and to what extent this effect is predominantly positive or negative.

The present research also aimed to explain the effect of social support by considering one social psychological process that predicts negative reactions to help-directed behavior of others. The threat to self-esteem model, developed by Fisher, Nadler, and Whitcher-Alagna (1982), asserts that the self-related consequences of aid are critical in determining the recipients' reaction to aid. Aid may, for instance, be threatening in that it implies an inferiority-superiority relationship between the provider and receiver of aid, which conflicts with values of self-reliance and independence. Such processes are likely to occur within work relations, because, especially with supervisors and colleagues a professional relationship exists in which individuals may not feel free to disclose feelings that may make them appear to be incompetent (Buunk & Schaufeli, 1993). Thus, it can be hypothesized that social support will only be beneficial when it does not induce feelings of inferiority.

To summarize, the following questions were examined. First, the effects of intimate support, instrumental support and rewarding companionship on daily stressful events and negative affect at the end of the workday were studied. Second, it was examined whether social support is only beneficial to the COs when it does not lead to feelings of inferiority.

Method

Participants

Participants were 38 Dutch (COs). Twenty-two (13 men and 9 women) were employed in a half-open prison, and 16 (all men) were employed in a closed prison. The policy in a half-open prison is, more than in a closed prison, focused upon the resocialization of prisoners. The mean age of the COs in the half-open prison was 33 years ($SD = 6.0$) and the mean age of those working in the closed prison was 43 years ($SD = 8.8$), $t(36) = -3.97, p < .001$. Due to the fact that the half-open prison is a relatively new prison, a significant difference also existed
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 $\alpha$ [beginning] = .88; Cronbach's $\alpha$ [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., Nezlek, 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
in a joint activity with another person in the work environment. If participants were involved in more than five interactions on a single day, they were instructed to complete the forms for the five most important ones. In accordance with Cutrona, the limit of five was imposed to reduce the record-keeping burden placed upon participants and to limit the volume of collected data.

The COs were asked to describe for each interaction: (a) the moment the contact started; (b) the duration of the contact; and (c) whether the other was a colleague, a superior, a prisoner, or somebody else. Furthermore, in order to identify whether a contact was characterized by intimate support, instrumental support and/or rewarding companionship, the COs were requested to answer some questions about the supportive elements of the interaction.

The first questions dealt with *intimate support*: (a) "The other paid attention to my feelings and problems;" (b) "The other showed that he/she appreciated the way I do my work;" (c) "The other showed that he/she liked me;" (d) "The other spoke highly about the way I accomplish my tasks;" and finally, one item asked whether the contact was perceived as confidential. The answers varied from *not at all* (1) to *very strongly* (5). Cronbach's alpha for this scale was .83.

The next class of questions measured *instrumental support*: (a) "The other took work from me;" (b) "The other gave me advice on how to handle things;" (c) "The other helped me with a certain task;" and (d) "The other gave his/her opinion about a problem concerning my work." Again, the answers varied from *not at all* (1) to *very strongly* (5). Cronbach's alpha was .74.

Another class of questions dealt with *companionship*. Two items inquired to what degree the interaction was seen as rewarding companionship (Rook, 1987). The items were (a) "We had a casual chat;" and (b) "We made jokes and had fun." The correlation between these two items was $r = .75$, $p < .001$.

The final class was *feelings of inferiority*: (a) "I had the feeling that the other looked down upon me;" (b) "I had the feeling that the other thought that he/she knows everything better;" (c) "The other gave me the feeling that I did something wrong." Cronbach's alpha was .77.

**Results**

*Descriptive Results*

In Table 1, descriptive results pertaining to the DIRO are presented.

As this table indicates, the average number of contacts was 9.1 in 5 days. Most of the contacts took place with colleagues. When taking a closer look at the source of the interactions it appears that the interactions with the prisoners
Table 1

**Descriptive Data Over a 5 Day Period (N = 38)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of stressful events</td>
<td>4.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Number of social interactions</td>
<td>9.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Number of interactions with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisor</td>
<td>.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Colleagues</td>
<td>4.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Prisoners</td>
<td>2.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Others</td>
<td>.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

were, as expected, appraised as least supportive. Table 2 shows that this applies most strongly for instrumental support. With regard to intimate support and rewarding companionship the differences are considerably smaller. For this reason, and considering the low number of social interactions with superiors and “others,” it was decided not to distinguish between the sources of social interaction.

The number of contacts was virtually the same as in previous studies. Policemen from a study by Buunk and Verhoeven (1991) reported an average number of 9.2 contacts in 5 days, whereas secretaries (Peeters et al., in press) reported, on the average, 8.8 contacts in 5 days. Furthermore, the COs reported nearly five stressful events in 5 days. It is striking that policemen in the study by Buunk and Verhoeven reported the same number of stressful events in 5 days. Secretaries reported only one such event in 5 days. These results seem to confirm the expectation that COs, like policemen, are confronted with many stressful circumstances in their daily work. With regard to social contacts, it is striking that the number of contacts is nearly the same for policemen, secretaries, and COs.

In order to compute within-subject relations, subjects’ scores on each variable were converted to standard scores with a mean of 0 and a standard deviation of 1, thus partialling out individual differences in means and standard deviations. After that, correlations between social interactions, stressful events, and negative affect were computed for each subject over the 5 days. This enabled us to examine the extent to which social interactions and stressful events were related to negative affect day by day. The correlations were then transformed to Fisher Zs (Ferguson, 1971), and these Zs were then averaged.
Table 2

**Mean Scores on the Degree of Supportiveness of a Social Interaction**

<table>
<thead>
<tr>
<th></th>
<th>Supervisor (n = 29)</th>
<th>Colleague (n = 162)</th>
<th>Prisoner (n = 98)</th>
<th>Others (n = 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimate support</td>
<td>$3.1^{a,d}$</td>
<td>$3.0^{b}$</td>
<td>$2.5^{c}$</td>
<td>$2.6^{cd}$</td>
</tr>
<tr>
<td>Instrumental support</td>
<td>$2.5^{a}$</td>
<td>$2.4^{a}$</td>
<td>$1.8^{b}$</td>
<td>$2.3^{a}$</td>
</tr>
<tr>
<td>Rewarding companionship</td>
<td>$2.5^{ab}$</td>
<td>$2.9^{a}$</td>
<td>$2.4^{b}$</td>
<td>$2.8^{ab}$</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative affect</td>
<td>.47***</td>
<td>.20</td>
<td>-.41*</td>
<td>.12</td>
</tr>
<tr>
<td>2. Number of stressful events</td>
<td>.43*</td>
<td>-.32</td>
<td>.36</td>
<td></td>
</tr>
<tr>
<td>3. Instrumental support</td>
<td>.08</td>
<td>.80***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Rewarding companionship</td>
<td></td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Intimate support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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 Zs 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,
there was a tendency to report less negative affect. Furthermore Table 3 shows that rewarding companionship is the only type of interaction that correlates, although not significantly, negatively with the number of stressful events. Intimate and instrumental support correlate positively with the number of stressful events, indicating that the subjects received more support on days characterized by more stressful events. Table 3 shows also that intimate support correlates highly with instrumental support. Because in the following regression analyses these high intercorrelations may cause problems of multicollinearity, for each type of interaction, a separate regression analysis was performed, even though with this procedure we may capitalize on chance.

Hierarchical regression analyses were performed in order to examine whether or not social interactions buffered the effect of stressful events on negative affect. According to Cohen and Wills (1985), regression analyses are preferred because they treat predictor variables (i.e., social interactions and stressful experiences) as well as the criterion (i.e., negative affect) as being continuous. To assess in regression analyses the within-subject effects of daily social interactions and stressful events upon negative affect, person-days were employed as the unit of analysis \(N = 190\). As we wanted to examine the change of negative affect during a day, in each analysis we controlled in the first step for the degree of negative affect that was already experienced at the beginning of the day. As suggested by various authors (e.g., Michela, 1990; Repetti, 1993) between-subject variance was controlled for by a set of dummy variables, equal to the number of subjects minus one \(N - 1 = 37\). The dummies were entered in the second step. In the third step, the number of stressful events and the degree of support were entered, and in the final step, we entered the interaction between the degree of social support and the number of stressful events. The interaction terms were computed by multiplying the centered main effects. The reported beta weights in Table 4 were derived from the full model.

Table 4 indicates that negative affect at the beginning of the day explains 27%-28% of the total variance of negative affect at the end of the day. The dummy variables, which reflect stable across-subject differences in mood, add 22% to this. Although this percentage looks rather impressive, it is not significant because of the high number of variables included in this block \(N - 1 = 37\) dummies). The number of stressful events adds 3% to the total explained variance. Although none of the main effects of the features of support-related social interactions appeared to be significant, the significant interaction between instrumental support and the number of stressful experiences points to the operation of a buffering effect. However, the sign of the beta was opposite to what was expected in advance, suggesting that instrumental support aggravates the relation between stressful events and negative affect, instead of
Table 4

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

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>β</th>
<th>$R^2$-change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Negative affect at the beginning of the day</td>
<td>.31**</td>
<td>.28***</td>
</tr>
<tr>
<td>Step 2. Dummy variables</td>
<td></td>
<td>.22</td>
</tr>
<tr>
<td>Step 3. Number of stressful events</td>
<td>.27*</td>
<td></td>
</tr>
<tr>
<td>Rewarding companionship</td>
<td>.07</td>
<td>.03</td>
</tr>
<tr>
<td>Step 4. Rewarding Companionship × Number of Stress</td>
<td>-.14</td>
<td>.01</td>
</tr>
</tbody>
</table>

Total explained variance

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>β</th>
<th>$R^2$-change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Negative affect at the beginning of the day</td>
<td>.32**</td>
<td>.28***</td>
</tr>
<tr>
<td>Step 2. Dummy variables</td>
<td></td>
<td>.22</td>
</tr>
<tr>
<td>Step 3. Number of stressful events</td>
<td>.28*</td>
<td></td>
</tr>
<tr>
<td>Intimate support</td>
<td>.04</td>
<td>.03</td>
</tr>
<tr>
<td>Step 4. Intimate Support × Number of Stress</td>
<td>-.01</td>
<td>.00</td>
</tr>
</tbody>
</table>

Total explained variance

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>β</th>
<th>$R^2$-change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Negative affect at the beginning of the day</td>
<td>.28**</td>
<td>.27***</td>
</tr>
<tr>
<td>Step 2. Dummy variables</td>
<td></td>
<td>.22</td>
</tr>
<tr>
<td>Step 3. Number of stressful events</td>
<td>.25*</td>
<td></td>
</tr>
<tr>
<td>Instrumental support</td>
<td>.15</td>
<td>.03</td>
</tr>
<tr>
<td>Step 4. Instrumental Support × Number of Stress</td>
<td>.19*</td>
<td>.02*</td>
</tr>
</tbody>
</table>

Total explained variance

*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
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.
Discussion

The general purpose of our research was to study, on a day-by-day basis, the relationship between three types of social interactions of correctional officers and negative affect. Attention was paid to one social psychological processes that may explain the often reported adverse effects of social support (cf. Buunk, Janssen, & VanYperen 1989; Kaufman & Beehr, 1986). In general, the study offers some interesting, though tentative, results.

The role of rewarding companionship in the stress process differed from the role of intimate and instrumental support. Rewarding companionship was the only factor that correlated significantly with negative affect, indicating that on days when more rewarding companionship was described, COs described less negative affect. Additionally, in contrast with intimate and instrumental support, rewarding companionship also correlated negatively with the number of stressful events. This suggests that on days when more rewarding companionship was perceived, COs reported fewer stressful events. However, since both variables were measured at one point in time, the reversed line of reasoning can not completely be ruled out. The remarkable role that companionship played in this study is in congruence with the results of other studies on the stress-reducing features of companionship. For example, Rook (1987) found that companionship had a main effect on psychological well-being and a buffering effect on minor life stress, whereas social support had only a buffering effect on major life stress. In a related vein, Buunk and Verhoeven (1991) found that companionship buffered job-related stress more effectively than did social support. Although the present study did not show a significant buffering effect for rewarding companionship, the results do seem promising and certainly warrant further research on the concept of companionship.

With regard to the role of instrumental support in the stress process, the present study showed an opposite buffering effect. Apparently, instrumental support aggravated the relationship between stressful events and negative affect, instead of functioning as a buffer against negative affect. In this research, we found support for a very plausible explanation for this adverse effect. Among COs, receiving instrumental support is likely to induce feelings of inferiority, which in turn leads to negative affect. Indeed, when considering the "machoculture" in prisons, it seems very plausible that being helped is often interpreted as a sign of weakness or incompetence. Furthermore, of all types of interactions, instrumental support is the most tangible type of support and most comparable with real helping behavior. Therefore, this type of interaction is probably most susceptible to the induction of feelings of inferiority. Apparently, many COs seem to suffer from the so-called "John Wayne syndrome": The CO as a tough lonesome cowboy who is emotionally unaffected
by his job and who can solve his own problems (Schaufeli, 1993). In a study among secretaries, instrumental support was also related to more negative affect (Peeters et al., in press). However, since in that study instrumental support showed a significant buffering effect in the predicted direction, it was concluded that individuals with low levels of well-being (induced by stressful events) frequently turn to others for support, which leads to positive correlations between negative affect and instrumental support. Moreover, the culture among the secretaries, who were all women, cannot be characterized as a macho culture. This indicates that the latter line of reasoning is not plausible in the case of COs. After all, COs do not turn to others for help because that might be interpreted as a sign of weakness or incompetence.

Finally, although other studies have shown that intimate or emotional support is functional with regard to the prevention or reduction of stress (cf. Cutrona, Cohen, & Igram, 1990; Dakof & Taylor, 1990), the results of this study suggest that for COs, intimate support has no stress-reducing or -preventing effect. A possible explanation may be the mixed composition of the sample in terms of gender. There exists considerable evidence that intimacy in social interactions is more important for women than for men (cf. Reis, 1987). As the present sample consisted of males as well as females, it may be that the role of intimate support was not strong enough to manifest itself.

Consistent with previous research (e.g., Bolger et al., 1989; Kennedy-Moore, Greenberg, Newman, & Stone, 1992; Larsen, Diener, & Emmons, 1986; Marco & Suls, 1993), the present study showed that the number of stressful experiences appeared to have the most substantial impact on negative affect: On days when more stressful events were described, COs moods were more negative.

Although the study led to a number of interesting results, we also encountered some limitations of the DIRO. As DIRO assessment is time- and energy-consuming for the respondents, it is relatively difficult to motivate employees to fill out the records consistently for a couple of consecutive days. Second, the various measures may not be independent from one another. For instance, the definition of an event as a stressor or as a social interaction is left to the subject. Although this has some major important advantages, it may also lead to artificially inflated correlations between the incidence of stressors and negative affect at the end of the workday and among the support measures themselves. Because of this, we had to perform three separate regression analyses instead of one. By doing so we might have capitalized on chance. Third, one could argue that an average of two support-related social interactions is rather few. It may indicate that the DIRO is not a very accurate method to count precisely how many workplace interactions individuals have because they are too much a function of the constraints built into the method. Because the COs reported
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.

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