

Individual and Common Components of the Social Environment at Work and Psychological Well-Being

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Interpretations of correlational research on the social origins of psychological well-being are limited by the possibility of reciprocal influences between persons and their social situations and by respondent bias. These issues are addressed in a study of the relation between the social environment at work and mental health. Two components of a social environment were measured: a common social environment, the social climate shared by employees in the same work setting, and an individual social environment, the social space surrounding one individual in the setting. The study related (a) averaged co-workers' ratings and individuals' own ratings of the social environment to (b) individuals' self-reported psychological well-being. A group of 37 bank branches represented work environments, and nonmanagerial personnel in the branches served as participants. Results indicated that the quality of the social environment at work is related to the mental health of employees. More important, the relation was confirmed with an independent measure of the social environment. *Aggregate co-worker ratings of the common social environment were significantly correlated with individual depression and anxiety. However, an individual's perceptions appeared to mediate the social environment's impact. As hypothesized, well-being was more closely tied to the proximal individual social environment than to the more distal common social environment.*

Psychologists are increasingly interested in studying the effects of social interaction on psychological well-being (e.g., Cohen & Wills, 1985; Heller & Swindle, 1983; Leavy, 1983; Pearlin, 1985). Two factors make research findings in this area difficult to interpret. First, reciprocal influences between persons and their social situations complicate the pursuit of causal inferences. Second, respondent bias may inflate correlations between individuals' ratings of the social environment and their psychological adjustment. This study examines the relation between the quality of social interactions at work and individual psychological well-being. It addresses the first issue by distinguishing between two components of a social environment at work: (a) a common social environment, which is assumed to be the same for all inhabitants of a setting and relatively inde-

pendent of individual characteristics, and (b) an individual social environment, local social space that is partly determined by an individual's own social behavior. Respondent bias is controlled by aggregating co-workers' perceptions of the common social environment.

The notion that people may create situations as well as respond to them is familiar to psychologists (Magnusson, 1981). For example, some investigators have suggested that social support can be viewed as an individual difference variable that contributes to the quality of a person's social environment (Sarason, Sarason, & Shearin, 1986). As Reis (1984) succinctly stated, it may be that "good health and good relationships are more likely in competent people" (p. 26) rather than there being anything inherently beneficial about particular types of relationships. In addition, theoretical overlap between person variables and situation variables can lead to measurement confounds. Dohrenwend, Dohrenwend, Dodson, and Shrout (1984) asserted that many popular instruments designed to measure social supports and stressors actually contain items that assess psychological outcomes.

Personality variables may influence not only the quality but also the evaluation of an individual's social situation. Social perception research suggests that cognitive representations of social information include features of the original stimuli as well as additions, deletions, and distortions (Wyer & Srull, 1980). For instance, an employee's frame of mind has been found to color perceptions of social conditions at work (Ward & Russell, 1981). Researchers examining connections between

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social interaction and well-being have been attuned to the possible role of systematic error owing to common rater variance. Some have attempted to differentiate perceived social support from support that is presumed to be more objective and hence less subject to respondent biases (Cutrona, 1986; Sarason & Sarason, 1985). For example, Wethington and Kessler (1986) assessed the actual provision of support by asking survey respondents to list the people who helped them cope with specific life events and to describe the type of support they received. This study addresses the same general problem by relying on others' perceptions of a group social climate.

Two-Tiered Assessment of the Social Environment at Work

Past studies have conceptualized the social environment at work in one of two ways. On the one hand, there are measures of social and organizational climate, whose unit of analysis is the setting and which assume that the same social forces impinge on all inhabitants of a work setting (Finney & Moos, 1983; Schneider, 1975). On the other hand, there are concepts like social support, whose unit of analysis is the individual. According to these conceptualizations, although two people may inhabit the same setting, each is surrounded by his or her own individual social space. Both versions of a social environment are measured in this study.

A *common social environment* is defined as the social climate shared by employees in the same work setting. It represents the overall social climate at work, which is assumed to be relatively independent of the characteristics of any individual employee. The quality of a common social environment may be determined by factors at the organizational level (Klein, 1971), as well as by work-setting variables such as managerial style, location, clientele, architectural features (Fleming, Baum, & Singer, 1985), and number of people in the work group (Oxley & Barrera, 1984).

An *individual social environment* is defined as the local social space surrounding one individual in a work setting. Three determinants of the individual social environment are the common social environment, personality traits that elicit particular social behavior and responses from others (Cohen, Sherrod, & Clark, 1986; Snyder, 1981), and job variables that may influence local interactions by structuring the nature and frequency of social contact (Alacalay & Pasick, 1983).

Jessor's (1981) work on the proximity of environments suggests that the individual social environment has a more powerful influence over psychological well-being than does the common social environment. According to Jessor, there are proximal and distal regions within the perceived environment "depending on the immediacy of their import for (a particular) behavior" (Jessor, 1981, p. 305). In this study, the common social environment is assumed to be more remote than the individual social environment with regard to psychological functioning. It is thus proposed that the quality of an individual's local social interactions has a greater impact on her psychological well-being than does the general social ambiance at work.

In addition to the unit-of-analysis distinction, two levels of measurement are used: individual-level and consensual scores.

Individual-level scores represent a single employee's perceptions of both the common social environment and the individual social environment. A *consensual score* represents the mean co-worker perception of the common social environment. Co-workers' ratings are used to avoid problems associated with respondent bias and confounding of predictor and outcome measures. The variance in co-worker ratings that is due to individual psychological variables tends to diminish when the ratings are averaged.

This study relates ratings of the social environment to individuals' self-reported psychological well-being. The social environment at work is evaluated by use of two units of analysis (i.e., individual and common components of the environment) and two levels of measurement (i.e., individual perceptions and aggregate group ratings). Although not widely applied in psychology, multilevel analysis, which involves the simultaneous use of measures at different levels of aggregation, has been used to study contextual effects in other areas of social research (Burstein & Roberts, 1980; Lincoln & Zeitz, 1980). The aim of the design is to reduce the conceptual and methodological confounds described here by attempting to differentiate individuals' internal psychological processes from their external social situations.

Hypotheses

Two specific hypotheses are tested. The main hypothesis predicts that both the common and the individual social environment at work are significantly related to psychological well-being. Specifically, psychological well-being is enhanced by positive factors and weakened by negative factors in the social environment. Moreover, the relation exists even when co-workers' ratings are used to measure the common social environment. Psychological well-being is defined as a multidimensional construct representing an individual's subjective sense of emotional well-being and comfort.

Jessor's (1981) description of a proximal-distal dimension in the perceived environment leads to the second hypothesis: Psychological well-being is more closely linked to the individual social environment than to the common social environment.

The study proposes to add to our understanding of the relation between the social environment at work and psychological well-being in four ways: by (a) developing a consensual measure of the social environment at work that, theoretically, is immune to the social influence of any single employee and, methodologically, is free of individual respondent bias; (b) testing whether this independent measure of the social environment is significantly related to individual psychological well-being; (c) evaluating the contribution that an individual's subjective impression of the environment makes to the relation described; and (d) determining how the two conceptualized components of the social environment may differentially relate to psychological well-being.

Method

Design

A correlational design was used to test the hypotheses. Branches of two banks (Bank A and Bank B) served as samples of work settings;

nonmanagerial personnel in the branches were participants. The two banks had similar organizational policies, such as salary scales, annual vacation leaves, and opportunities for advancement. Bank branches were chosen because each could represent a separate work environment with clearly definable boundaries. In addition, investigators in this area have noted several limitations in the use of data sets that combine diverse work settings (Kasl & Wells, 1985). By using only nonmanagerial employees in retail banking, the design implicitly controls for certain characteristics of work groups (such as organizational structure) and for certain job and individual variables (such as salary and education). I reasoned that the high rates of social interaction at work and the fact that different managers and physical environs were associated with each setting would allow for sufficient variability in the social climates of the branches.

Procedure and Response Rates

Data were collected in two phases. In Phase 1, a volunteer sample of employees from 37 bank branches ($N = 302$) rated the social environment of their work settings by completing a Social Environment Survey. In Phase 2, an all-female volunteer subsample ($N = 70$) of these employees, herein referred to as target subjects, completed a Target Subject Questionnaire, which included measures of psychological well-being.

Phase 1

Every nonmanagerial employee ($N = 440$) at each of 39 bank branches was asked to complete a Social Environment Survey. Managers and assistant managers were excluded from the sample because their responsibility for the functioning of the branch might have biased their ratings (Burt, 1983; Zalesny, Kurchner-Hawkins, & Farace, 1983). The response rates for the total number of employees sampled from 39 branches were 44% at Bank A (104 surveys returned from 234 potential respondents) and 96% at Bank B (198 surveys returned from 206 potential respondents). Two Bank A branches did not return any surveys; 37 branches were thus represented in Phase 1.

The higher response rate at Bank B probably resulted from a difference in data collection procedures. At Bank A, the surveys were distributed by a bank employee and most were returned to the investigator through the bank's interoffice mail system; a few were returned through the U.S. Postal Service. At Bank B, the investigator attended branch meetings in which she distributed and collected the surveys herself. The change in procedures was made after the investigator was told by a few Bank A employees that the low response rate at their branch was at least partly due to concerns about surveys being seen by management, even though all questionnaires were completed anonymously.

Phase 2

The Phase 2 sample consisted of 70 target subjects from 30 bank branches. All 264 female respondents in Phase 1 were invited to participate in Phase 2 of the study. The subject pool was confined to women because only 7% of the Phase 1 respondents were men, which reflects a common trend in the banking industry (Alexander & Sapery, 1972). Because research on job stress and social support has focused almost exclusively on the male work force (Haw, 1982; Kasl & Wells, 1985), the female sample used here may help to fill an important gap in the literature. It also controls for sex as a possible confounding variable.

Guidelines for the composition of the Phase 2 sample were that no more than 50% of the raters in one setting could participate as target subjects and at least four Phase 1 surveys had to be returned from that branch. The criteria were imposed to ensure that any one branch was not overrepresented in Phase 2 and there would be a minimum of three

Phase 1 co-workers to compute a consensual branch score for each target subject. The investigator randomly telephoned women who expressed interest in further participation to describe the additional procedures and to discuss confidentiality. There were 36 candidates from Bank A (39% of the Bank A female respondents in Phase 1) and 85 candidates from Bank B (49% of the Bank B female respondents in Phase 1). Those candidates who were called and who agreed to participate received a Target Subject Questionnaire within a week. Target subjects were given stamped envelopes to return completed questionnaires directly to the investigator. The response rates for Phase 2 were 92% at Bank A (33 questionnaires returned from 36 candidates who were called and agreed to participate) and 70% at Bank B (40 questionnaires returned from 57 candidates who were called and agreed to participate).¹ Three Phase 2 questionnaires were eliminated because at least four Phase 1 surveys were not available from that person's branch.

Characteristics of Settings and Subjects

Work Settings

Bank A is a medium-size commercial bank in a northeastern state. Most of the branches included here were in an industrial city and its surrounding areas; the rest were scattered among nine outlying towns. Bank B is a large commercial bank in a western state. Branches included in the sample represented one small district in a large metropolitan area. The actual sample of work settings for most statistical analyses included only those branches that returned four or more completed Social Environment Surveys. Thirty sites met the criteria: 16 from Bank A and 14 from Bank B. All were represented by at least one target subject in Phase 2.

Subjects

Most of the respondents to the Phase 1 Social Environment Survey were women (93%). A wide range of ages was represented in the sample, from 18 to 65 years; the average respondent was in her early 30s. Approximately half of those surveyed were married (52%); the next largest group was singles (36%) and then divorced or separated (12%). Among Phase 1 respondents, 84% worked full time (defined as 30 hr or more each week). The bulk of the sample consisted of tellers (60%) and customer service representatives (27%). Chi-square and *t* tests indicated that there were no differences between respondents from the two banks in terms of background characteristics such as age, marital status, income, and education.

Despite their self-selection into Phase 2, target subjects appeared to be representative of the Phase 1 sample. The Phase 2 sample was compared with Phase 1 respondents who were not self-nominated candidates for Phase 2 on four variables: the importance placed on having good social relations at work, job satisfaction, ratings of the social environment at work, and the relation between ratings of job satisfaction and the social environment at work. No differences were found. The Phase 1 and Phase 2 samples were also similar in terms of background and job characteristics.

Measures

Psychological Well-Being

Three dimensions of psychological well-being were assessed in the Target Subject Questionnaire: depression, anxiety, and self-esteem.

¹ Among Bank B branches, the Phase 2 candidates often represented more than 50% of the total Phase 1 respondents. As a result, only 59 of the candidates were actually asked to participate. Fifty-seven of them agreed to participate in Phase 2.

Depression was measured by the CES-Depression Scale, a 20-item self-report scale designed to assess depressive symptomatology in the general population. The scale's high internal consistency, test-retest reliability, and validity have been described elsewhere (Radloff, 1977).

Anxiety was assessed by the Trait Anxiety Scale, a self-report measure of trait anxiety. The scale consists of 20 statements that ask the respondent to describe how she generally feels. Reports of its internal consistency, test-retest reliability, and validity suggest this is a sound measure of anxiety (Buros, 1978; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983).

Self-Esteem was measured by the Self-Esteem Scale (Rosenberg, 1965), a 10-item measure of self-acceptance. Studies indicate that this scale also has acceptable psychometric properties (Demo, 1985; Robinson & Shaver, 1973; Silber & Tippett, 1965).

Among the sample of target subjects, the internal reliabilities of the three scales were adequate ($\alpha = .89$ for depression, $.89$ for anxiety, and $.88$ for self-esteem). High scores indicated high levels of depression, anxiety, and self-esteem.

Social Environment at Work

Social environment variables were derived from factor analyses of questionnaire items. Scales developed from the Phase 1 survey served as the primary measures of the social environment, and supplementary scales were formed from data collected in Phase 2.

Primary measures. The Phase 1 Social Environment Survey was designed to assess both the common and the individual social environment at work. Items intended to measure the common social environment were worded in terms of the general climate at work (e.g., "There are often conflicts among people who work here"). Individual social environment items were worded in terms of the individual's own personal experience (e.g., "How easy is it to talk with your immediate supervisor?"). Also included were items measuring employees' job satisfaction.

More specifically, the Social Environment Survey consisted of the following: (a) the Relationship Dimension of the Work Environment Scale (Insel & Moos, 1974), a 27-item scale that measures the nature of interpersonal relationships in a work setting; (b) an 8-item work social support scale (Caplan, Cobb, French, Harrison, & Pinneau, 1975); (c) a 5-item job satisfaction scale from the Job Diagnostic Survey (Hackman & Oldham, 1975, 1980); and (d) additional items that were specially written to assess aspects of a common social environment, such as amount of friendliness and respect.

The 53-item Phase 1 Social Environment Survey was factor analyzed to reduce the data to a few factor-based scales. Although 302 people completed the survey, only the 234 surveys without missing data were used. A principal-axis factor analysis with varimax rotation yielded five factors with eigenvalues greater than or equal to 1, which accounted for 78% of the total variation in the ratings. Two of the factors represented the common social environment, two represented the individual social environment, and one had high loadings on job-satisfaction items. Because the job-satisfaction factor did not represent the social environment, it is not used in any of the analyses reported here.

On the basis of the factor analysis, four factor-based measures of the social environment were constructed in which each item was weighted equally. An item was retained as a measure of a factor if its correlation with that factor was greater than or equal to .40 and its correlation with the other factors was less than .40. Responses to each item on the Social Environment Survey were standardized to a mean of 0 and a variance of 1 before scale scores were calculated. The two common social environment scales, Global (22 items, $\alpha = .93$) and Intimacy (4 items, $\alpha = .66$), consisted of items that were worded in terms of the general social climate at work. Items in the Global scale assess the tendency for relations in a work group to be cohesive, friendly, and respectful. The

Table 1
Primary Measures of the Social Environment at Work

Component of the social environment	Measure	
	Individual score	Consensual score
Common social environment	Global Intimacy	Consensual global
Individual social environment	Supervisor support Co-worker support	

intimacy scale measures the extent to which employees in a branch are emotionally supportive and open with one another. The two individual social environment scales, Supervisor Support (4 items, $\alpha = .86$) and Co-worker Support (4 items, $\alpha = .79$), measure the amount of instrumental and emotional support an individual receives through her personal relationships at work; they are identical to the support scales developed by Caplan et al. (1975). High scores on each of the four scales indicate the presence of positive factors in the social environment. Items comprising each scale are listed in the Appendix.

Analyses indicated that the aggregation of Global scores within branches, to create consensual ratings of the common social environment, was justified. A one-way analysis of variance (ANOVA), which compared the variability of Global scores within branches to total variability, indicated that there was significantly less variation among ratings of the same branch, $F(36, 264) = 6.11, p \leq .001$. The variance of Global scores within each branch ranged from .00 to .52; mean branch variance was .19. The intraclass correlation coefficient (ICC), which reflects the degree of correspondence among ratings made by multiple judges (James, 1982; Shrout & Fleiss, 1979), was used as a measure of homogeneity of ratings within the same branch. The ICC for Global (.39) was statistically significant.²

The aggregate variable, consensual global, is the mean branch score for Global with the participant's own rating omitted from the average. In other words, a target subject's consensual global score is her co-workers' average rating of the common social environment in the branch. Because there was much less consensus among branch co-workers on the Intimacy scale (ICC = .23), an aggregate score was not computed. Variance among Intimacy scores within branches ranged from .03 to 1.14; mean branch variance was .31.

In sum, results of the factor analysis supported the conceptual distinction between a common and an individual social environment and the construction of a reliable consensual measure of the general social climate at work. As Table 1 illustrates, individual-level scores were computed for two common social environment scales, and a consensual score was computed for one of those scales. In addition, two individual-level measures of the individual social environment were created. The intercorrelation of scores on the primary scales of the social environment are reported in Table 2.

Supplementary measures. Additional measures of the social environment were developed from target subjects' Phase 2 data. The Target Subject Questionnaire included two sets of adjective ratings of the social environment: (a) 16 separate adjective ratings of an individual's interac-

² James (1982) has argued convincingly that this version of the ICC "should be employed as the primary basis for deciding whether to aggregate climate perceptions to provide a situational descriptor such as organizational climate" (p. 223). In his review of studies that used the ICC to estimate interjudge agreement on ratings of work environments, estimates ranged from .00 to .50.

Table 2
Intercorrelation of Primary Measures of the Social Environment at Work

Scale	N	1	2	3	4
1. Global	302	—			
2. Intimacy	302	.29**	—		
3. Supervisor support	302	.57**	.23**	—	
4. Co-worker support	302	.51**	.28**	.33**	—
5. Consensual global	70	.64**	.26*	.38**	.17

Note. Correlations in the first four rows are based on data from all 302 Phase 1 respondents. Correlations in the fifth row are based on data from 70 target subjects and their co-workers.

* $p \leq .05$. ** $p \leq .001$.

tions with her supervisors, co-workers, and customers (the individual social environment), and (b) 34 adjective ratings of the common social environment. Each adjective was rated with a 4-point response scale. In order to reduce the number of ratings, the two item pools were separately factor analyzed in the manner described earlier, and the same rule for creating factor-based scales was used.

The analysis of the individual social environment ratings resulted in six factor-based scales. Three scales representing customer relations were not used in this study. The remaining three adjective-rating scales were (a) Supervisor Ratings, which describes feelings experienced during interactions with supervisors (sociable, respected, close, positive, happy, satisfied, supported, appreciated, cared about; reverse scored: attacked, distant, pressured, annoyed; $\alpha = .64$); (b) Positive Co-worker Ratings, which describes positive feelings experienced during interactions with co-workers (respected, positive, happy, satisfied, supported, appreciated, cared about; $\alpha = .90$); and (c) Negative Co-worker Ratings, which describes negative feelings experienced during interactions with co-workers (tense, resentful, attacked, pressured; $\alpha = .61$).

The factor analysis of the common social environment adjective ratings resulted in two scales that describe the overall climate in the branch. Positive Common Environment ($\alpha = .96$) consists of 15 adjectives (respectful, enthusiastic, sharing, concern for others, positive, sociable, commitment, accepting, close, supportive, hospitable, warm, trusting, sincere, motivated). Negative Common Environment ($\alpha = .84$) consists of 8 adjectives (bad, boring, tense, gossip, anxiety, disruptive, angry, domineering). The scales describe a pleasant and unpleasant interpersonal atmosphere in the branch, respectively. Mean scores were computed for each adjective-rating scale.

Results

Results of the study are presented in three parts. First, the possible confounding effects of individual and job characteristics and bank differences are addressed. Second, the relation between the social environment at work and psychological well-being (Hypothesis 1) is examined through correlation and multiple regression procedures. Additional analyses compare individual and aggregate ratings of the common social environment and investigate the moderating role of supervisor support. In the third and final section, the two conceptualized components of a social environment are compared (Hypothesis 2).

Possible confounding effects of respondent (age, marital status, religion, education, income) and job (job title, hours at work, time spent working at the branch) characteristics were examined first. Only one background variable, age, appeared

to be a potential confound. Older employees tended to report fewer symptoms of depression and to describe a more positive social environment at work. Consequently, age was used as a control variable in hierarchical regression analyses.

Bank Differences

Average social environment ratings for Bank A branches were higher on all of the primary (Phase 1) measures except Intimacy. The variation in Phase 1 data collection procedures may account for the differences. Because of concerns about whether management would see completed surveys, some Bank A employees may have biased their responses in a positive direction. In Phase 2, questionnaires from both banks were returned directly to the investigator and no bank differences were found. Additional evidence that bank differences in Phase 1 ratings were the result of greater error in Phase 1 data from Bank A included findings that (a) although patterns of results were similar, correlations between Phase 1 social environment scales and well-being tended to be lower for Bank A than for Bank B; and (b) in corresponding multiple regressions, the standard error of the estimate was greater for Bank A ratings than for Bank B ratings.

I decided to analyze the combined sample of Bank A and Bank B data, instead of only the more reliable Bank B data, for three reasons. First, bank differences in the correlations between the social environment variables and the well-being variables were not large, and the differences were in magnitude, not direction. Second, the loss of the Bank A target subjects would have resulted in a substantial decrease in sample size and a corresponding reduction in power. Third, combining bank ratings represents the more conservative approach because it minimizes Type I errors.

Social Environment and Psychological Well-Being

The hypothesis that the social environment at work is significantly related to psychological well-being was first tested through Pearson product-moment correlations, reported in Table 3. Of the 15 associations between five social environment

Table 3
Intercorrelation of Psychological Well-Being Variables and Measures of the Social Environment

Social environment measure	Psychological well-being		
	Depression	Anxiety	Self-esteem
Individual score			
Global	-.52***	-.51***	.26*
Intimacy	-.08	-.16	-.05
Supervisor support	-.52***	-.47***	.29**
Co-worker support	-.11	-.20*	.00
Consensual score			
Consensual global	-.26*	-.20*	.08

Note. $N = 70$. Probability levels are based on one-tailed tests because a directional alternate hypothesis is being tested (Hays, 1981).

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

variables and three well-being variables, 9 were significant, all in the predicted direction. Positive social relations at work were associated with fewer depressive and anxious symptoms and higher self-esteem. The significance of correlations between the consensual global variable and psychological well-being is highlighted when one takes into account the between-branches variance in well-being scores, which is the maximum amount of variance that can be explained by a branch-level measure. The proportion of the total variation in well-being scores that is between branches is .40 for depression, .31 for anxiety, and .27 for self-esteem. The percentage of the between-branches variance that is explained by the consensual global variable is 18% for depression, 13% for anxiety, and 4% for self-esteem. The same pattern of results was found when data from each bank were analyzed separately.

Aggregate Versus Individual-Level Measures of the Common Social Environment

As expected, compared with co-workers' perceptions, an individual's own rating of the social environment at work was a better predictor of her well-being. This is not surprising because individual-level measures represent, to some extent, consensual reality as well as individual reality and because respondent biases may inflate their correlations. A more important question may be, how much do individual perceptions contribute, independent of consensual reality? A two-part hierarchical regression model addressed this issue. Consensual global scores were entered in the first step, and global scores were entered in the second. When the individual-level measure was added to the equation, there was a significant increase in explained variance for depression ($\Delta R^2 = .21, p \leq .001$), anxiety ($\Delta R^2 = .24, p \leq .001$), and self-esteem ($\Delta R^2 = .07, p \leq .05$). Thus, for all three well-being outcomes, individual perceptions of the common social environment made a significant contribution over and above the effect of consensual reality, suggesting that individual perceptions may mediate the social climate's impact on psychological well-being.

Combined Effects of Common and Individual Components

Table 4 presents the hierarchical regression model that investigated the combined effects of the common social environment and the individual social environment. The model was computed separately for each of the three well-being outcomes. Three regression equations were used. Age was entered in the first equation as a control variable. The consensual global variable, representing an independent measure of the overall social climate in a branch, was added in the second equation. Finally, the two social support variables (supervisor support and co-worker support) were included in the third equation as measures of the individual social environment at work. The two support measures were added after the consensual measure because the common social environment has been conceptualized as a determinant of the individual social environment.

Alone, age accounted for a significant proportion of the variance in depression, but not anxiety or self-esteem scores. In the

second equation, even with age included, the aggregate measure of the common social environment was a significant predictor of depression. However, the beta weight for the consensual global variable was not significant in the prediction of the other two indices of well-being. When measures of support from supervisors and from co-workers were added in the third equation, the percentage of explained variance increased significantly for all three outcomes, with supervisor support as the best predictor. Co-worker support did not achieve a significant weighting in any of the regressions.

Unlike the prediction of depression and anxiety, the overall R^2 for the self-esteem regression model was fairly low and not statistically significant. The prediction of self-esteem scores was significantly reduced compared with the prediction of depression (Wilks's $\lambda = .76$), $F(4, 65) = 5.22, p \leq .001$, and anxiety (Wilks's $\lambda = .82$), $F(4, 65) = 3.65, p \leq .01$, scores.

Role of Supervisors

Additional analyses were performed to determine whether support from a supervisor moderated the impact of the common social environment. After controlling for the main effects of the consensual global variable and supervisor support, an interaction term representing the cross product of these two social environment variables contributed a significant amount of variance to the prediction of depression ($p < .01$) but not anxiety or self-esteem.

A within-group correlation analysis clarified the depression findings. Two groups of target subjects were created: a positive-climate group consisting of 34 target subjects with consensual global ratings greater than 0, and a negative-climate group consisting of 36 target subjects with ratings less than 0. Correlations between supervisor support and depression were computed for each group separately. The correlation coefficient for the positive-climate group was weak, $r(34) = -.11, p \geq .05$, whereas the correlation for the negative-climate group was strong, $r(36) = -.59, p \leq .001$. The difference between the two correlation coefficients was statistically significant, $t(34) = 2.38, p \leq .05$, and was not due to a restriction of range in scores among the positive-climate branches or to bank differences.³

The group difference suggests that rather than supplementing the beneficial effects of a positive social climate at work, support from a supervisor functions primarily within the context of a negative social climate. In other words, a supportive supervisor may have a pure buffering effect by compensating for an aversive social climate but having no impact when the climate is positive (Cohen & Wills, 1985). Of course, it may also be that an unsupportive supervisor intensifies the deleterious effects of an al-

³ The range in supervisor-support scores was identical in the two groups, and the range in depression scores was 1.90 for the negative-climate group and 1.10 for the positive-climate group. To test whether the differences were due to an overrepresentation of Bank A target subjects in the positive-climate group, the within-group correlations were repeated with a balanced number of Bank A and Bank B subjects in each group. Results were essentially the same: positive-climate $r(22) = -.06, p \geq .05$; negative-climate $r(21) = -.62, p \leq .01$.

Table 4
Hierarchical Regression Model Predicting Psychological Well-Being From Measures of the Social Environment

Predictor variable	Depression			Anxiety			Self-esteem		
	Equation 1 β	Equation 2 β	Equation 3 β	Equation 1 β	Equation 2 β	Equation 3 β	Equation 1 β	Equation 2 β	Equation 3 β
Age	-.24*	-.21	-.13	-.20	-.17	-.11	.09	.07	.02
Consensual global Supervisor support		-.23*	-.06		-.17	-.01		.07	-.02
Co-worker support			-.48***			-.42***			.32**
R^2 ^a	.06*	.11*	.29***	.04	.07	.24***	.01	.01	.09
ΔR^2 ^b		.05	.18***		.03	.17**		.00	.08

Note. $N = 70$.

^a Equation 1: $df = 1, 68$; Equation 2: $df = 2, 67$; equation 3: $df = 4, 65$.

^b Change in R^2 from the previous equation (column).

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

ready poor social climate at work. Moderating effects were not found for co-worker support.

Comparing the Two Components of the Social Environment

The second hypothesis stated that psychological well-being is more closely linked to the individual social environment than to the common social environment. Here the interest lies in a comparison of the two conceptualized components of a social environment (the climate shared by all inhabitants, as opposed to local social space surrounding one individual), not in a comparison of individual and aggregate scores. It is therefore essential that the same level of measurement be used to assess the two environmental constructs. Because consensual-level scores could logically be computed only for the common social environment, individual perceptions of the common and individual social environment are used to test the second hypothesis. Compared with the primary measures, the supplementary scales of the common social environment (Positive Common Environment and Negative Common Environment) and the individual social environment (Supervisor Ratings, Positive Co-worker Ratings, and Negative Co-worker Ratings) are more similar in terms of number of items and internal reliabilities. The equivalence of the supplementary scales make them more appropriate for testing differences between the two components of the social environment.

Table 5 presents the simultaneous multiple regression model using the five adjective-rating scales as predictors of well-being. Here, none of the beta coefficients for common social environment ratings were significant. On the other hand, at least one measure of the individual social environment had a significant beta in each regression. The significant positive beta associated with positive co-worker ratings for the prediction of depression scores seems to represent a suppressor effect. Overall, analyses using equivalent measures of the common and individual social environment at work appeared to support the second hypothesis, that perceptions of the individual social environment are more strongly tied to mental health than are perceptions of the more remote common social environment.

Discussion

Social Environment and Psychological Well-Being

The hypothesis that the quality of the social environment at work is related to the psychological well-being of employees was supported. Because psychological well-being is determined by many factors, I anticipated that the effect of interpersonal relations in a single setting would not be very large. Yet, individual-level measures of the common and individual social environment at work accounted for over 30% of the variance in depression and anxiety scores and up to 10% of the variance in self-esteem scores.

Most importantly, the relation was confirmed using an independent measure of the common social environment. Co-workers' average rating of the common social environment was correlated with two indices of an individual employee's mental health: depression and anxiety. By demonstrating that the link between social relations at work and psychological functioning is not due simply to respondent bias, the study lends credence to reports of similar associations based solely on individual-level correlations.

Aggregate ratings do not in themselves permit one to specify a causal ordering of variables. Nevertheless, by eliminating certain methodological problems, a pattern of findings emerged for which certain causal inferences appear more credible than others. Groups of employees with relatively high rates of depression and anxiety would have had to be initially assigned to the same branch for psychological distress to have been a major determinant of the group climate. Seemingly more plausible are mechanisms through which the common social environment influenced psychological well-being. If social bonding is necessary for emotional well-being, daily social encounters in a job setting where affiliative needs are not met would be expected to impair workers' adjustment.

Of course, what one investigator considers respondent bias, to be reduced or eliminated, may represent an important psychological difference between individuals to another investigator. Social interaction may influence psychological well-being only through an individual's subjective impression of a social

Table 5
Simple Regression Predicting Psychological Well-Being From Adjective Ratings of the Social Environment at Work

Predictor variable	Criterion variable		
	Depression β	Anxiety β	Self-esteem β
Common social environment			
Positive common environment	-.09	-.19	-.15
Negative common environment	.05	-.04	.05
Individual social environment			
Supervisor ratings	-.58**	-.51**	.31*
Positive co-worker ratings	.36**	.11	-.14
Negative co-worker ratings	.04	.01	.00
R^2 ^b	.36**	.31**	.10

Note. $N = 69$ because of missing data on one questionnaire.

^a Sign of beta is opposite of predicted direction.

^b $df = 5, 63$.

* $p \leq .05$. ** $p \leq .001$.

situation. In the stress and coping literature, Lazarus and his colleagues have taken the position that "there are no environmental stressors without vulnerable people" (Lazarus, DeLongis, Folkman, & Gruen, 1985, p. 776). Whether individual differences in description of a common social environment are considered the result of error or normal cognitive processes, such as appraisal, they appear to play an important role. Even though an independent measure of the social climate at work may correlate with mental health, knowing an individual's unique perception of the environment significantly enhances the relation. The data reported here may be viewed as evidence that the way an employee actively interprets and experiences the social climate at work mediates its psychological impact on her.

Individual and Common Components of the Social Environment

The conceptual distinction between a common social environment and an individual social environment was supported by the factor analysis of the Phase 1 survey. Questions worded in terms of the two components of a social milieu loaded on separate factors. In addition, the job-satisfaction factor demonstrated that the distinction between "common" and "individual" terms was not merely an artifact of wording differences. Job-satisfaction items were written both with direct wording about the self and with indirect wording about the work in general, yet they loaded on a single factor. The isolation of job-satisfaction items also implies that employees differentiated between perceptions of the social environment at work and feelings about their job.

The results also indicate that a proximal social environment exerts a greater psychological impact, compared with a more distal social environment. A participant's description of her individual social environment, which was conceptualized as being partly shaped by her own social behavior, was a better predictor of her psychological well-being than was her description of the branch's common social environment. Individual dispositions such as social competence may contribute to the devel-

opment of a supportive individual social environment at work, which in turn influences mental health. However, the more remote common social environment, which an individual employee is less able to shape, was also related to psychological well-being, albeit to a lesser extent. The findings make clearer the advantage of a two-tiered conceptualization of the social environment. Both individual and common components may influence psychological functioning; a focus on only one can obscure the importance of the other.

Importance of Supervisors

In concert with previous research (Beehr, 1976; House & Wells, 1978; Karasek, Triantis, & Chaudhry, 1982), the data reported here suggest that there is an enhanced psychological significance to social interactions with supervisors compared with interactions with co-workers. Multiple regression analyses showed that relations with supervisors had the strongest impact on psychological well-being. In fact, co-workers often appeared to have no effect at all. However, in this study, as in most others, employees were asked to rate their relationship with a *single* supervisor but with a *number* of co-workers. The nonequivalence of the two approaches may partially account for the different findings. Greater measurement error might be expected in a scale that asks raters somehow to average across their relationships with different people. On the other hand, it is also possible that workers feel more emotionally vulnerable in role relationships with supervisors because they are less able to influence and change those interactions or because of worries about job evaluations.

Interestingly, a within-group correlation analysis suggested that perceived support from a supervisor is linked to depression only in the context of a negative common social environment. Under friendlier social conditions, supervisor support had no effect. In short, it appears that the debilitating psychological effects of an aversive social climate at work are either buffered by support or compounded by a lack of support from a supervisor.

Conclusions

The results of this study have several implications for researchers interested in the social origins of psychological well-being. First, the results point to the psychological significance, in a female work force, of a social climate at work that is independent of personal characteristics that create local social space and, to a lesser extent, independent of respondent biases. Second, the findings suggest that social support from supervisors is most salient in the context of an unsatisfying social climate at work. Third, they indicate that the conceptualization of a two-tiered social environment and the methodological strategy of using aggregate independent ratings of the common social environment are promising approaches. However, the findings should be replicated with different populations. It is important to determine whether the obtained relations generalize to men and to different social settings.

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Appendix

Items Comprising Primary Measures of the Social Environment at Work

Global (Factor 1)

1. People go out of their way to help a new employee feel comfortable.*
 2. Supervisors tend to talk down to employees.*
 3. There's not much group spirit.*
 4. The atmosphere is somewhat impersonal.*
 5. Supervisors usually compliment an employee who does something well.*
 6. A lot of people seem to be just putting in time.*
 7. Supervisors tend to discourage criticism from employees.*
 8. People seem to take pride in the organization.*
 9. People put quite a lot of effort into what they do.*
 10. Supervisors often criticize employees over minor things.*
 11. Few people ever volunteer.*
 12. It is quite a lively place.*
 13. Supervisors expect far too much from employees.*
 14. It's hard to get people to do any extra work.*
 15. Often people make trouble by talking behind each others' backs.*
 16. Supervisors really stand up for their people.*
 17. The social atmosphere in this branch is very friendly.^c
 18. In our branch people show a great deal of respect for one another.^c
 19. There are often conflicts among people who work here.^c
 20. Interactions among fellow employees here are almost always very positive.^c
 21. There is a great deal of tension among people in this branch.^c
 22. People on this job often think of quitting.^d
-

Intimacy (Factor 4)

1. People take a personal interest in each other.*
 2. Employees often talk to each other about personal problems.*
 3. Employees discuss personal problems with supervisors.*
 4. Employees at this branch often discuss their personal lives outside of work with each other.^c
-

Supervisor Support (Factor 2) and Co-worker Support (Factor 5)

1. How much (does your immediate supervisor/do other people at work) go out of (his/her/their) way to do things to make your work life easier for you?^b
 2. How easy is it to talk with (your immediate supervisor/other people at work)?^b
 3. How much can (your immediate supervisor/other people at work) be relied on when things get tough at work?^b
 4. How much (is your immediate supervisor/are other people at work) willing to listen to your personal problems?^b
-

Job Satisfaction (Factor 3)

1. The work is really challenging.*

2. The work is usually very interesting.^a
 3. I frequently think of quitting this job.^d
 4. Generally speaking, I am very satisfied with this job.^d
 5. I am generally satisfied with the kind of work I do in this job.^d
-

Note. Each of the items comprising the factor-based measures of the social environment at work and job satisfaction appeared on the Phase 1 Social Environment Survey.

^a Item is part of the Work Environment Scale by Insel & Moos, 1974, Palo Alto, CA: Consulting Psychologists Press. Copyright 1974 by Consulting Psychologists Press. Reprinted by permission. A 4-point response scale, ranging from *definitely false* (1) to *definitely true* (4), was used to rate each statement describing the social climate.

^b Item is part of a work social support scale (Caplan, Cobb, French, Harrison, & Pinneau, 1975). A 4-point response scale was used to indicate how well each statement described the respondent's interactions at work: *not at all* (1), *a little* (2), *somewhat* (3), and *very much* (4).

^c Item was specially written for the study. A 7-point response scale, ranging from *disagree strongly* (1) to *agree strongly* (7), was used.

^d Item is part of the job-satisfaction scale from the Job Diagnostic Survey by Hackman & Oldham, 1980, Reading, MA: Addison-Wesley. Copyright 1980 by Addison-Wesley. Reprinted by permission. The same 7-point response scale was used as in Appendix Note C.

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