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THE EFFECTS OF UNIONS ON EMPLOYEE ROLE
STRESSES AND SOMATIC STRAIN

by

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Abstract

This study explored the effects of union membership vs. nonmembership on role based stress (i.e., ambiguity, overload, and interrole conflict), somatic complaints, and on the relationship between role stress and somatic complaints. The data analyzed came from the 1977 Quality of Employment Survey (Quinn & Staines, 1979). Only those respondents ($N=251$) who held full-time nonsupervisory jobs in manufacturing were included in our sample. On the average, relative to nonmembers, union members reported higher level of ambiguity and interrole conflict, but similar levels of overload and of somatic complaints. Union membership moderated the relationship between overload and somatic complaints. For union members higher perceived effectiveness of the union was associated with lower perceived stress and strain. We discuss the implications of those findings for further research on the impact of unions on stress, strain, and their interrelationship.

The Effects of Unions on Employee Role

Stresses and Somatic Strain

The effects of union membership on employee attitudes and behaviors in work organizations are increasingly being investigated by behavioral scientists (e.g., Block & Premarck, 1983; Brett, 1980; Fiorito & Greer, 1982; Freeman, 1984; Gordon & Nurick, 1981; Kochan, 1980; Kochan & Helfman, 1981). A highly relevant, yet hardly explored area of research in this domain is unions' impact on employees' perceptions of work-related stress and affective strain. It is highly relevant because stress in organizations is related to several costly individual maladaptations and organizational inefficiencies (for reviews, see Cooper, 1983; Lazarus & Folkman, 1984; Schuler, 1984). The one study of the impact of unions on work-related stress that we were able to locate (Odewahn & Petty, 1980) investigated this effect in a rather weak form of unionism; a local union of public employees that did not have a formal collective agreement with its public employer. The neglect of this issue in organizational psychology research has practical ramifications. In a recent survey of 48 international unions conducted by the American Psychological Association, reducing work-related stress of union members was ranked as the area of greatest need for services that could be delivered by psychologists (Huszczco, Wiggins & Currie, 1984). Nonetheless, psychologists lack basic understanding of whether or not, and if so how, unions are implicated in employees' stress experiences.

The objective of this study was to contribute to the development of a knowledge base on the effects of unions on stress and strain. We decided to

focus on somatic complaints as the criterion because this variable represents a well-researched, affective reaction to work-related stress (French, Caplan & Harrison, 1982; Schmitt, Colligan & Fitzgerald, 1980), is frequently used as a measure of mental health or psychological well-being (Zautra & Hempel, 1984) and is associated with poor physical health (House, McMichael, Wells, et al., 1979; Mechanic, 1980). The role-based stresses used as predictors, namely ambiguity, overload, and interrole conflict, have been widely used to assess work related stress (cf. Caplan & Jones, 1975; Jackson & Schuler, 1985).

The first and second hypotheses concerned the effects of unions on stress and somatic complaints. Relative to nonmembers, union members were expected to report less overload and ambiguity, but more interrole conflict (Hypothesis 1). Our second hypothesis predicted that relative to nonmembers, union members would report less somatic complaints.

The rationale for the first hypothesis has to do with the direct effects of unions, managements reactions to these effects, and the reciprocal interactions between the direct and indirect effects of unions over time (Kochan, 1980a). Union contract provisions, such as those detailing the required procedure for promotion, job transfer, or disciplining, lead to uniformity in the treatment of union members in many personnel matters (Slichter, Healy, & Livernash, 1960; Dimick, 1978) and thus directly reduce ambiguity in these matters. Similarly, most unions participate, either formally by virtue of a collective bargaining agreement (Rothschild, Merrifield & Edwards, 1979, pp. 643-645) or informally (Slichter, Healy & Livernash, 1960, pp. 563-564), in job evaluation systems. Job evaluation systems inevitably include descriptions of the jobs in a bargaining unit in

terms of their (a) skill, (b) effort, (c) responsibility, and (d) requirements on and demands made from the job holder (Sloane & Witney, 1977). Therefore, we expected unions to have a direct effect in reducing uncertainties that concern job duties and responsibilities.

Management often reacts to those contract provisions requiring uniformity in handling union members' affairs by increasing formalization of managerial policies (Kochan, 1980a; Freeman & Modoff, 1983, p. 297). Unions' insistence that management operates by the rules (e.g., jurisdictional limitations on what employees can and cannot do) has been shown to lead management to develop internal control policies by means of expanded staff functions (Mills, 1981; Thurley & Wood, 1983). Formalization was shown to have a consistent negative correlation with role ambiguity (Fisher & Gitelson, 1983; Jackson & Schuler, 1985). Thus, in addition to the direct effects of unions, the reaction of management was expected to further reduce role ambiguity for union members.

Unions have traditionally regarded overtime work as an important bargaining issue, and endeavoured contractually to establish management's duty to take into consideration employees' preferences in assigning overtime (Rothschild, Merrifield, & Edwards, 1979, p. 741). In the same vein, when a wage incentive system was introduced by management, unions have attempted to include in the collective agreement limitations on management's freedom to determine the "normal" or "average" work load of union members (Slichter et al., 1960, pp. 497-503). Therefore, we expected union members to experience less overload than nonmembers.

Union membership often entails off-work activities and commitments, like participating in local union meetings or serving on a union committee (cf.

Estey, 1976; Gordon, Philpot, Burt, Thompson & Spiller, 1980), that potentially interfere with family and leisure life. Therefore, union members were anticipated to experience more interrole conflict than nonmembers.

Union members were expected to have lower levels of somatic complaints. There were two reasons for this hypothesis. First, unions have been shown to increase the probability that their members would be covered by health insurance, sick leave arrangements, in-firm dispensary facilities and other types of fringe benefits (Freeman, 1984; Freeman & Medoff, 1983; Kochan & Helfman, 1981). These medical benefits are likely to be negatively associated with the prevalence of somatic complaints. Second, unions serve as a mechanism that provides their members with institutionalized resistance resources (Freeman & Medoff, 1983) such as a grievance procedure; there are indications that availability of such resources reduce the likelihood of somatic symptoms (cf. Norris & Murrell, 1984).

Following the large body of findings on stress-somatic complaints associations (e.g., Caplan, Cobb, French, et al., 1975; French, Caplan, & Harrison, 1982), we hypothesized that each of the role stresses would be positively associated with somatic complaints. Furthermore, this association was expected to be stronger for nonmembers than for union members (Hypothesis 3).

The rationale for expecting union membership to moderate stress-strain relationships has to do with three alternative paths of influence that a union exerts in the workplace. First, unions increase employees' control of stressful events. Thus an employer's decision to lay off, discharge or demote an employee in a bargaining unit is regulated under most collective bargaining agreements (Kochan, 1980a). Second, through the grievance procedure, included

in virtually all written collective agreements in private industry, union members are able to affect decisions that may be detrimental to their work lives. These two factors, controllability of stressful events and participation in decision making, have been shown to act as moderators of stress-strain relationships (Fisher, 1984; Jackson, 1983). Third, union officers have been described as a major source of instrumental and moral social support to union members (Shostak, 1980, 74-77), and social support in general has also been found to act as a moderator of stress-strain relationships (French et al., 1982). It should be noted that those three potential moderating influences may also act directly to modify union members' stress perceptions or their affective response to somatic complaints.

Thus far, we have dealt with the effects of unions on stress and strain viewing all unions as basically similar to each other. Moving away from the undifferentiated view of unionism, then, a construct that may capture the diversity within the union sector is union effectiveness. There is some evidence suggesting that within the union sector, employees' perceptions of and affective reactions to their jobs are functionally related to the effectiveness of their union (Carillon & Sutton, 1982; Hammer, 1978; Kochan & Helfman, 1981). Our fourth hypothesis was concerned with this functional relationship. We anticipated that to the extent that a union effectively renders its various services, members of the union would report lower stress and less frequent somatic complaints.

Researchers have investigated the effects of unions on a wide range of economic and noneconomic work-related outcomes (e.g., Freeman & Medoff, 1983; Kochan & Helfman, 1981). Differences between union members and nonmembers in work-related outcomes may be explained in terms of variables that antecede

unionization. To exemplify, ambiguity has been shown to increase with employees' level of formal education (Jackson & Schuler, 1985). Yet educational level has been found to be negatively associated with unionism (Fiorito & Greer, 1982), since more educated employees have greater individual bargaining power and thus less need for collective action. It follows that if union members were found to report less ambiguity relative to nonmembers, this could be attributed to their lower educational level. Therefore, in testing our hypotheses, the set of sociodemographic and employer variables which, on the basis of our prior analysis, was found to best differentiate union members from nonmembers was controlled for so as to remove the possibility of explaining our findings in terms of potential precursors of unionization.

Method

Sample

The data consisted of survey responses of 251 employees selected from the 1977 Quality of Employment Survey (Quinn & Staines, 1979). In this cross-sectional study, a national probability sample of 1515 adults working 20 hours or more per week was drawn. The national sample was representative of all U.S. employed adults, all occupations, and all industries. Only those employees who indicated that they did not have a physical or nervous condition that limits the amount or kind of work they did were selected. In addition, for the present study the sample was limited to nonsupervisory personnel who worked 30 to 70 hours per week in the manufacturing sector.

Restricting the analysis to nonsupervisory personnel in manufacturing was done for several reasons. Supervisors were excluded since they lie outside of the potential domain of collective bargaining. A second reason for excluding

them was that their jobs differ systematically from nonsupervisory positions in objective role stresses (Kahn et al., 1964) and other factors which influence workers' attitudes.

The manufacturing sector was chosen because the proportion of union members in it (about 36%) was large relative to other major industries (Kokkelenberg & Sockell, 1985). In contrast, other sectors of the labor force were either weakly unionized (e.g., less than 10% of the employees in the personal and financial services were unionized; (cf. Kokkelenberg & Sockell, 1985) or were organized by weak forms of unions (e.g., employees' associations in the public sector; cf. Kochan, 1980b).

In the present sample, the employing industries produced a broad range of durable and nondurable goods with the largest proportions in transportation equipment, machinery, metal works, and apparel. Slightly less than one-half of the employees were union members ($n = 119$). For other descriptive characteristics of this study's sample, see Kirmeyer and Shirom (1986).

Measures

Scales were constructed from existing survey items (Quinn & Staines, 1979) to measure union-nonunion differences in role stress and strain. Employee demographic and employment information were used as control variables. Scale scores were averages based on the sum of items, each scored on a one to four scale. All estimates of internal consistency, reported in parentheses on the diagonal in Table 2, used Cronbach's alpha statistic and were based on the sample of 251 employees.

Demographic and employment information, used as control variables, included measures of extraneous differences assumed to precede union

membership (Fiorito & Greer, 1982). The sociodemographic information included respondents' sex, race, age, marital status, years of school completed, geographical location of residence, and size of city in which they lived. Information on conditions of employment included firm size, organizational seniority, wages, fringe benefits, and job dangers (occupational hazards).

Measures of actual income and benefits were derived from respondents' reports of their hourly wages or salaries and the fringe benefits they received. When income was needed as a control in parametric analyses, we applied a logarithmic transformation to the reported hourly wage. Respondents' scores on the scale constructed to assess fringe benefits were the proportions of a list of 16 benefits that they indicated were available to them. These fringe benefits represented a broad range of medical, educational, and thrift packages such as sick leave with full pay, life insurance or savings plan, and paid vacations. The job dangers scale measured the extent of exposure to the following seven potential job dangers: harmful chemicals, fire, air pollution from dust or fibers, extremes of temperature, dirty or badly maintained work areas, noise, and dangerous equipment. Respondents indicated the extent of job danger on a scale from 0 (not present) through 1 (present, but "no problem at all") to 4 ("great problem").

Role stress. Following Kahn et al. (1964) and Caplan et al. (1975), we constructed scales to measure three types of role stresses: role overload, ambiguity, and interrole conflict. Overload consisted of six items; to illustrate, respondents were asked about the extent to which their jobs (a) required them to work very fast, (b) never provided enough time to get everything done, and (c) demanded too much work to do everything well. Role ambiguity was a composite of six items which, as examples, asked about the

extent to which respondents perceived that their job: (a) let them know what had to be done, (b) provided enough information, (c) work responsibilities were clearly defined, (d) let them know exactly what was expected of them. Finally, interrole conflict was gauged by three items assessing the extent to which respondents viewed their job and family life, or their job and free time activities, to interfere with each other.

Somatic complaints. Respondents were asked to indicate on a scale from 1 (often) to 4 (never) (for the present analysis, this scale was reverse scored) how frequently during the last year they had experienced the following symptoms: (a) trouble breathing or shortness of breath, (b) becoming very tired in a short time, (c) having trouble getting to sleep, (d) having trouble staying asleep, (e) heart pounding or racing, (f) hands sweating so that they feel damp and clammy, (g) feeling nervous or fidgety and tense, (h) poor appetite, and (i) spells of dizziness.

Union members were defined as those who responded affirmatively to the following question: "In your present job, do you belong to a union or to an employees' association similar to a union?" Union membership was dichotomously coded.

Union performance. Respondents were asked to rate how good a job their union had done, on a scale ranging from "not at all good" to "very good", in three different areas. These areas were: (a) economic benefits and job security (consisted of four items: wages, fringe benefits, job security, and safety); (b) intrinsic job characteristics (three items: getting a say in how to do jobs, making jobs more interesting, and getting a say on how the employer runs the business); and (c) responsiveness to its own members (three items: telling members what the union is doing, handling members' grievances,

and giving members a say in how the union is run). The three separate scales, constructed to represent each of these three areas, were found to be highly correlated ($\bar{r}=.61$) and similarly intercorrelated with the measures of stress and strain: therefore, they were combined into one measure of union performance (ten items).

Analysis

The first step in the analysis was to determine, from all the sociodemographic and employment variables hypothesized on the basis of past research to precede unionization, that set of variables which together provide the best means of discriminating between the union members and the nonmembers in our sample. For this purpose, a discriminant analysis (Overall & Klett, 1972) was carried out. The discriminant analysis was performed with the measure entered hierarchically in four ordered sets.

Measures in the first set were employees' race, sex, marital status, age and education. For the second set, the control variables chosen represented global characteristics of the respondents' industry and residential location, that is, city size, geographical region and type of manufacturing product. The third set consisted of firm size and organizational tenure. The fourth set of variables represented hypothesized direct effects of unions and included the employee's hourly wage as well as measures of fringe benefits and job dangers. Within each set, variables were entered in a stepwise manner if they contributed significantly (based on the F ratio and the related Wilks' Lambda measure) to the differentiation of union members and nonmembers. The stepwise procedure was chosen because it is appropriate where there are potentially more predictors than necessary to achieve satisfactory

discrimination. In accordance with the recommended procedure (Klecka, 1980; Overall & Klett, 1972) the discriminant function was fitted to a subset of the data (i.e. a 70% subsample) randomly drawn to avoid an upward bias in the proportion of employees correctly classified. The resulting discriminant function coefficients were then used to classify the remaining 30% of the sample.

The third hypothesis, which concerned the possible moderating effect of union membership on stress-somatic complaints relationship, was formulated in terms of union-nonunion membership differences in the degree of association. As argued by Arnold (1982, 1984), the appropriate analytic technique for testing this hypothesis is the method adopted here, that of subgroup correlation analysis. For testing the significance of the difference between two correlation coefficients, we calculated a unit-normal-curve deviate based on Fisher's transformation (Edwards, 1976).

Results

Cross-tabulation analysis showed that union and nonunion employees differed significantly in specific personal attributes and employment characteristics. In general, our findings are consistent with previous empirical research (as reviewed by Block & Premack, 1983, and Fiorito & Greer, 1982). Relative to nonunion employees, union members had a significantly lower educational attainment, were more likely to be male and non-white, to be employed in larger manufacturing firms of the north central region, and to have been with their current employer longer. Union members received a higher median wage as well as more extensive fringe benefits than their nonunion

counterparts. Consistent with prior research (Kochan & Helfman, 1981; Worrall & Butler, 1983), union members perceived their jobs as exposing them to significantly more job dangers. However, union and nonunion employees did not differ in age, marital status or size of city in which they resided.

Given the many significant differences between union and nonunion employees, we were concerned with the nature of the relationship among these variables. Discriminant analysis was employed to identify which of these antecedent variables when evaluated relative to the others, are most strongly related to union membership. Four variables, the employee attributes of education and sex, and the employment characteristics of geographical region and firm size, contributed to the optimal discrimination of union and nonunion employees; their standard discriminant weights (analogous to beta coefficients in regression analysis) were .52, -.45, .32, and .22, respectively. Those four variables, the best discriminators of union membership status, were used as control variables in subsequent analyses. After controlling for these four variables, union-nonunion differences in actual wages, fringe benefits, and job dangers were all nonsignificant.

To test the first and second hypotheses, multiple classification analysis [MCA] (Andrews, Morgan, Sonquist & Klem, 1973) was performed on each of the stresses and somatic complaints as criteria. The results of the MCA are presented in Table 1. Each criterion was predicted by (a) union membership alone (the unadjusted \underline{M} column in Table 1) and (b) by union membership entered after the effects of the four control variables were statistically partialled out (the adjusted \underline{M} column in Table 1). One of the advantages of the MCA is that it evaluates the linear and nonlinear (i.e., the eta and beta values in

Table 1) relationships between the criterion and the predictors. Beta, the partial correlation ratio reported in Table 1, indicates how well the predictor explained each of the criteria after adjusting for the effects of the four control variables.

Insert Table 1 About Here

The effect of union membership on somatic complaints was not significant, thus disconfirming the second hypothesis. Even though the adjusted mean differences on the measures of overload was in the hypothesized direction, it was not statistically significant. The only finding which confirmed the hypothesized differential effects of union membership on stress concerned interrole conflict, found to be significantly higher for union members. Ambiguity was also significantly predicted by union membership, but the direction of the effect was opposite to the one hypothesized: union members reported more role ambiguity than nonunion employees.

As can be seen from Table 2, the intercorrelations of the stress variables for the union and nonunion employees were quite similar (mean intercorrelations of .29 and .27, respectively). However, the stress variables were not correlated with somatic complaints for the union members, but were significantly associated with somatic complaints for the nonunion employees. For pairs of stress-somatic strain correlations, the strength of the relationship for nonunion employees did not exceed significantly ($p < .05$) that obtained for union members, thus disconfirming our hypothesis. The one exception was for role overload. For non union employees, the association between overload and somatic conflicts significantly exceeded that obtained

for union members. However, these findings may be due to differences in sociodemographic or employment variables that antecede unionization.

Insert Table 2 About Here

Therefore, we next controlled for the effects of the four control variables on the subgroup intercorrelations. The results, reported in Table 3, consistently did not support the third hypothesis, again with the exception of overload. Indeed, there were only slight differences between the zero order intercorrelations, reported in Table 2, and the partial correlations reported in Table 3, indicating that stress-somatic complaints associations were unaffected by the four control variables.

Insert Table 3 About Here

The intercorrelations among the measure of union effectiveness and the stresses and somatic complaints, reported below the diagonal, in Table 2, provide strong support for the fourth hypothesis. From the viewpoint of the individual union member, then the higher the effectiveness of his/her union, the lower her/his reported stress and somatic complaints.

Discussion

This study deals with the relationship between unionization, employee role stress, and somatic complaints. In addition, we investigated the extent to which union effectiveness affected stress and somatic complaints. Few isolated attempts of unions' involvement in reducing work related stress

were reported in the literature. As an example, the UAW - Ford Employee Assistance Plan covers also preventative health practices such as education related to exercise, diet, and personal skills for coping with stress (Savoie, 1985). There is, however, a wide gap between these isolated programs and the massive involvement of Scandinavian trade unions in the field of stress at the workplace (Gardell, 1982). Psychosocial research is essential to understanding if, and to what extent, unions influence their members' stress and strain. Such research may provide necessary knowledge base for union-initiated preventive interventions. Yet we found no past studies dealing with these issues, with the exception of Odewahn and Petty's (1980) study of a semi-unionized workplace.

With respect to the overall effect of unions on employee job attitudes, a recent assessment of research evidence concluded that relative to nonmembers, union members reported higher or same extrinsic job satisfaction (primarily due to unions' success in obtaining higher wages and better fringe benefits but lower intrinsic (e.g., relations with supervisors) job satisfaction (Freeman & Medoff, 1984, pp. 139-142; Kochan, 1980a, pp. 373-374). These past results appear to reflect either or a combination of the following factors: unions relative neglect of their members' cognitive and affective reactions to the intrinsic aspects of their jobs, employer adjustment to unionism that produced less favorable job attitudes among union members, (Koahcn, 1980a, p. 376), and union members' greater awareness of problems and willingness to speak out (Freeman & Medoff, 1984).

Overall, our findings suggest that there is a need to modify the above prevailing view. Unions, as our results indicate, may be held responsible for their members' higher role ambiguity and interrole conflict (relative to

nonmembers) and have not been successful, except in the case of role overload, in alleviating the strain-producing effects of stress. However, the negative associations we found between union effectiveness, stress and somatic complaints point out that there is a need for a differentiated view of unions. When members' perceived their unions as effective, they experienced less role stress and somatic complaints. Before discussing further those findings, a few caveats are in order.

Our data are responses to a cross-sectional survey of workers' attitudes. This raises a question inherent to such data: whether the differences found between union members and nonunion workers actually followed unionization, and thus might justifiably be attributed to union impact, or preceded unionization. Freeman (1984) reported that longitudinal analysis of the effects of unionism on wage and nonwage outcomes tends to confirm the significant impact of unionism found in cross-sectional studies, with the latter studies providing upwardly biased estimates of "true" union effects. However, the nonwage outcomes studied by Freeman (1984) included only fringe benefits.

Since there is evidence that suggests that job-related tensions are positively associated with pro-union attitudes (Alutto & Belasco, 1974), it can be argued that unions tend to organize employees who are experiencing stress, that is, those employees whose jobs are ambiguous and interfere with their nonwork roles. An advantage of restricting our sample to manufacturing industry is that it is highly likely that our respondents' jobs were organized years ago (Chamberlain, Cullen & Lewin, 1980). Furthermore, our hypotheses expected a positive union impact on stress and strain. To the extent that union members' attitudes were still influenced by the pre-union situation, and

to the extent that there was a positive affect of the unionized on the nonunionized sectors of manufacturing, these should have reduced the "true" union effects on stress and strain, as estimated here.

The last caveat concerns the classification of employees who were not union members but who worked in a bargaining unit under a union contract, as nonmembers. We followed this procedure for two reasons. First, on the conceptual level, we assumed that a union was an imperfect agent of its members, endeavoring, as its major goal, to serve its current membership faithfully and well. This assumption is often made in research on labor unions (cf. Faith & Reid, 1983). Second, a nonmembers working under a union contract may have a variety of different types of relationship with the union representing them, depending on the prevailing union security arrangement (e.g., dues checkoff; closed, union, or open shop; maintenance of membership; see Reid & Kirth, 1984). Again, to the extent that our definition of union members should have included nonmembers covered by a union contract, it further reduced the union effect that we expected to find and militated against our hypotheses.

Out of the four hypothesized main effects of union membership on stress and strain, only two were actually confirmed. As expected, union members, on the average, reported more interrole conflict than nonmembers, but, contrary to our expectation, they also reported more ambiguity. We did not identify appreciable effects of union membership on overload and somatic complaints. Why should unions have a negative influence on role ambiguity? Yet another job characteristic of union members, not considered here, is that relative to nonunion employees, their jobs tend to be less substantively complex (Kochan & Helfman, 1981; Kirmeyer & Shirom, 1986). In past research, job complexity

was found to be negatively correlated with role ambiguity (Jackson & Schuler, 1985). It could be that the impoverished jobs of union members, rather than their more formalized organizational context, accounted for their greater role ambiguity. However, as Jackson and Schuler (1985) noted, a theoretical rationale for the negative relationship between role ambiguity and job complexity has yet to be developed.

Why union membership did not have the expected positive effect on overload cannot easily be explained. At the bargaining table, unions have traditionally deemphasized "quality of worklife" issues like job enrichment and role ambiguity (Holley, Feild & Crowley, 1981; Quinn & Staines, 1979). Workload, however, has ranked relatively high on unions' bargaining agenda. The disconfirmation of the expected reduced level of somatic complaints for union members may be due to the greater inclination and willingness of union members to speak out and to complain about problems (Freeman & Medoff, 1984). This interpretation is consistent with the finding that union members reported more problems with job hazards than comparable non union employees even after controlling for the average injury rate in the industry (Kochan & Helfman, 1981).

Clearly, our hypothesis that the amount of shared variance in stress-somatic complaints associations would be substantially greater for nonunion employees than for union members was not supported by either the zero-order correlations (Table 2) or the subgroup partial correlation analysis (Table 3). However, overload was a major exception in that it was significantly more strongly correlated with somatic complaints for nonunion than union members. One interpretation of the exceptional role played by overload has to do with

the aforementioned tendency of unions to regard it as an important bargaining issue and to reduce its dysfunctional consequences for union members.

Our expectation that higher union effectiveness, as perceived by union members, would be related to lower stress and less frequent somatic complaints, received consistent support. Our findings on the positive impact of union effectiveness may indicate that union members who experience minimal stress and who enjoy robust mental health gave their union part of the credit by evaluating highly its performance in all domains. Alternatively, effective unions may indeed bring about lower levels of stress and strain among those they represent. This effect may occur in several ways. Presumably members of a powerful union may perceive themselves to be more influential in shaping their immediate work environment, and the perception of environmental control has been demonstrated to shield employees against the health-related effects of stressful events (Kobasa, Maddi & Kahn, 1982). It is also possible that an effective union provides its members with instrumental and emotional coping resources, such as guidance on company productivity standards, or assistance with personal problems, or providing opportunities to talk about vexing shop floor problems (see Shostak, 1980, pp. 73-80). These coping resources are known to alleviate stress and ameliorate its harmful psychological consequences (House et al., 1979).

From a practical point of view, union leaders might be interested in exploring further why, and under what conditions, union membership has a negative influence on their members' role stress. Union leaders and management officials alike have a stake in exploring the nature of the identified buffering effect on the causal chain leading from role overload to strain among union members. The present findings also have several

implications for future research, especially on the role played by union effectiveness in stress-strain relationship. Our findings suggest that the response of unions to issues such as role overload, ambiguity and interrole conflict varied considerably across unions as a function of their perceived effectiveness. Future research may explore the hypothesis that the variance in union response is related to factors such as: (a) power relationships between labor and management, (b) the availability of information on employees' concerns, and (c) the union's ideological position with respect to the right of employees to work in an environment conducive to their mental and physical health (cf. Bacow, 1980).

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Footnotes

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Table 1

Multiple Classification Analysis of Stress and Strain on Union Membership

Criterion	Union Membership	Unadjusted <u>M</u>	Adjusted <u>M</u>	t^b
Ambiguity Eta ² and Beta ² ^a	Members	1.87	1.90	1.84*
	Nonmembers	1.81 .06	1.79 .12*	
Overload Eta ² and Beta ² ^a	Members	2.31	2.32	.11
	Nonmembers	2.41 .03	2.39 .07	
Interrole conflict Eta ² and Beta ² ^a	Members	2.48	2.51	3.57*
	Nonmembers	2.33 .11	2.30 .15*	
Somatic complaints Eta ² and Beta ² ^a	Members	1.82	1.83	.86
	Nonmembers	1.74 .07	1.75 .05	

Note: The adjusted means, which were obtained from the multiple classification analysis, were adjusted for differences in education, sex, geographical region and firm size. n 's were 111 and 123 for union members and nonmembers, respectively.

^a Eta², the figure presented in the unadjusted mean column, is the squared correlation ratio. Beta², the figure presented in the adjusted mean column, is the squared partial correlation ratio.

^b In this column, t represents the test static t for the significance of difference between the adjusted means (directional tests).

* $p < .05$.

Table 2

Intercorrelations Among Measures of Stress, Strain, and Union Effectiveness for Union Members and Nonmembers and Descriptive Statistics for Those Measures

Variable	1	2	3	4	5
Stress					
1. Ambiguity	(.67) ^a	.28	.25	.17	--
2. Overload	.29	(.79) ^a	.28	.31	--
3. Interrole conflict	.31	.26	(.73) ^a	.27	--
Strain					
4. Somatic Complaints	<u>-.05</u>	<u>.10</u>	<u>.14</u>	(.81) ^a	--
Moderator					
5. Union Effectiveness ^c	-.18	-.22	-.21	-.18	(.88) ^a
<u>M</u> ^b	1.83 ^b	2.36 ^b	2.39 ^b	1.76 ^b	2.64 ^c
<u>SD</u> ^b	.46 ^b	.53 ^b	.72 ^b	.57 ^b	.71 ^c

^a Scale reliability

^b Statistic for total sample

^c Statistic for the subsample of union members

Note: Correlations below the reliabilities are for union members and those above are for nonunion employees. Excepting those underlined, all correlation coefficients are statistically significant at the $p < .05$ level. N 's = 246, 113, and 123 for respectively the total sample, union subsample and nonunion subsample.

Table 3

Partial Correlations of Role Stresses and Somatic Complaints for Union Members and Nonmembers

Sample	Role Stress		
	Ambiguity	Overload	Interrole Conflict
Total	<u>.06</u>	.20	.23
Union	<u>-.02</u>	<u>.08</u>	.19
Nonunion	.16	.31	.28

Note: The partial correlations listed above control for differences in education, sex, geographical region, and firm size. Except for those underlined, all partial correlation coefficients were significant at or beyond the $p < .05$ level.