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The availability of personal and external coping resources: their impact on job stress and employee attitudes during organizational restructuring

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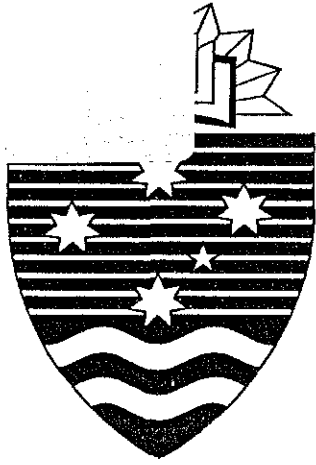
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BOND UNIVERSITY School of Business

DISCUSSION PAPERS

**"The Availability of Personal and External Coping Resources:
Their Impact on Job Stress and Employee Attitudes During
Organizational Restructuring"**

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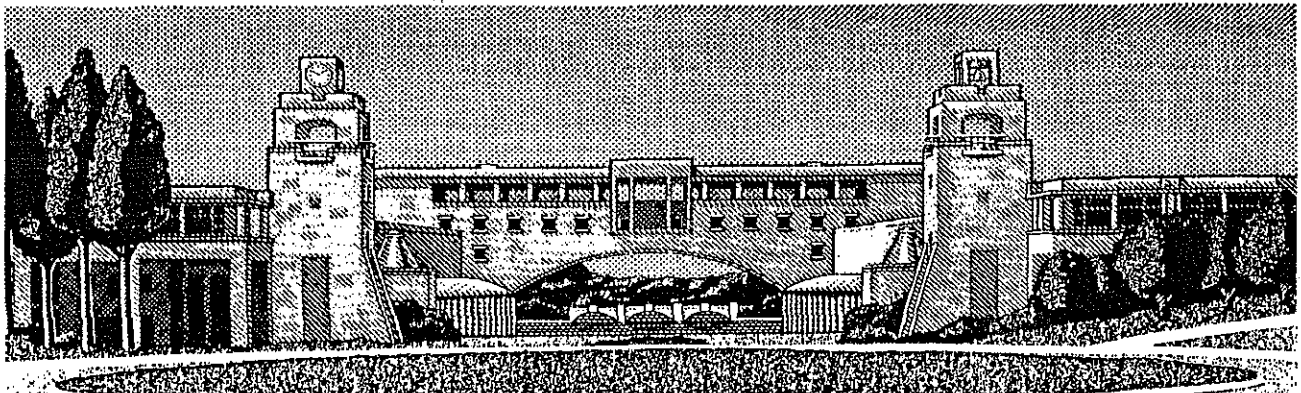
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B O N D U N I V E R S I T Y

THE AVAILABILITY OF PERSONAL AND EXTERNAL COPING RESOURCES:
THEIR IMPACT ON JOB STRESS AND EMPLOYEE ATTITUDES
DURING ORGANIZATIONAL RESTRUCTURING

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THE AVAILABILITY OF PERSONAL AND EXTERNAL COPING RESOURCES:
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ABSTRACT

This study examined the relationships among personal coping resources, social support, external coping resources, job stressors and job strains in a sample of 110 American Telephone & Telegraph employees undergoing a major organizational restructuring. The study expanded on a model suggested by Ashford (1988) by defining another category of coping resources that employees may draw upon to deal with the stressors and strains which occur during major organizational changes. External coping resources were defined as those which provided employees with a sense of "vicarious control" in stressful situations. Results indicated that personal coping resources, social support, and external coping resources had a direct effect upon job stressor and strain levels. No "buffering" effect of these coping resources was found. Hierarchical regression analyses indicated that external coping resources added to the prediction of job stressors and strains even when personal coping resources and social support were entered first into the prediction equations.

The decade of the 1980's was characterized by a skyrocketing number of corporate takeovers, mergers, and other forms of major organizational restructuring. The decade of the 1990's seems likely to include even more dramatic forms of organizational change, not only in the U.S. but around the world. Mikhail Gorbachev's program of "perestroika" in the Soviet Union, along with the development of capitalist economies in countries such as Hungary, Poland, and Czechoslovakia will be accompanied by monumental changes in the basic operation and structure of thousands of organizations. These changes will impact the attitudes and behavior of millions of workers. Ashford (1988) pointed out that most research related to these forms of organizational change has focused on the resistance to change exhibited by employees. Relatively little effort has been made to study other aspects of the psychological impact of large scale change.

In 1985, Schweiger and Ivancevich noted that, although corporate mergers were happening with considerable frequency, little effort had been made to examine the additional stresses placed upon employees by merger activities and the effect that such stress had on employee attitudes and performance. Schweiger and Ivancevich pointed out that the restructuring which took place during mergers was likely to create feelings of uncertainty, insecurity, and fear. Organizational change typically involves a "transition stage" during which the old organization has been disassembled, but the new organization is not yet in place (Bridges, 1986; Nadler, 1982). The possibility of job loss, significant job changes or transfers, alterations in the form and amount of compensation, as well as a potential loss of power, status, and prestige serve to increase feelings of insecurity and uncertainty in employees. Large scale organizational restructuring is difficult for employees because "merger activities are usually unfamiliar to individuals, no coping strategy exists in the individual's repertoire" (Schweiger & Ivancevich, 1985: 48). Employees are faced with significant job stressors

caused by a changing environment, but may have few readily available means with which to deal with them.

Research on job stress has identified a number of methods by which individuals cope with stress as well as personal and situational factors which enhance or decrease the ability to deal effectively with stressful situations (e.g., Folkman & Lazarus, 1980; Jackson, 1983; Moos & Billings, 1982; Tetrick & LaRocco, 1987). However, little of this research has focused on employees in organizations undergoing major restructuring (see Ashford, 1988, for one such study).

The data reported in this paper was collected as part of a larger study on employee participation in and attitudes toward unions, and the impact of unions on Quality Of Work Life (QWL) programs at one of the "Baby Bells" of the AT&T system (see Thacker & Fields, 1987, for a report of the union-QWL findings). However, since the two waves of data collection occurred just before and after a major organizational restructuring, we are able to examine some key issues concerning job stress. This study examined the effect of organizational divestiture on perceptions of job stressors. The relationship between job stressors and attitude toward the organization is also assessed. Finally, the study investigated the extent to which the availability of personal coping resources, external coping resources, and social support affect the level of stressors experienced and attitudes toward the organization during a period of change.

Stressors And Strains During Organizational Change

A variety of job stressors have been identified in the work environment. Among these are role conflict, role ambiguity, and role overload (House & Rizzo, 1972; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; LaRocco & Jones, 1978; McGrath, 1970). Role conflict occurs when an employee is asked to perform two or more, often mutually exclusive tasks at the same time. Role ambiguity occurs when an employee is unsure of exactly what to do or how his or her work will be evaluated. An employee may

experience role overload when too many tasks are assigned in a particular time period or when tasks assigned are beyond the ability of the employee. All these stressors seem likely to result from major organizational restructuring given the level of uncertainty associated with these transitions (Ackerman, 1982; Ashford, 1988; Graves, 1981; Nadler, 1982). Role ambiguity should be prevalent, since the rules of the old organization no longer apply, but may not have been replaced with new ones. Employees are unsure about the new roles they are to play. Role conflict may occur, particularly as the rules of the new organization begin to develop, since these new rules may be in direct contrast to those of the old organization. Role overload may also occur during major organizational transitions. Employees may have a much more difficult time completing the work assigned to them since they have not yet mastered the skills needed to perform their new roles.

A variety of studies have shown that job stressors are related to psychological, physiological, and behavioral job strains (negative job-related outcomes) such as job dissatisfaction, increased blood pressure, or a greater propensity to leave the organization (House & Rizzo, 1972; Johnson & Stinson, 1975; Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964; Rizzo, House & Lirtzman, 1970). Because of the limitations placed on the data collection methods used in this study by the organization, we focused only on psychological strains, specifically job satisfaction, attitude toward the divestiture, and overall commitment to the organization. As a result of the increased role conflict, ambiguity, and overload that were predicted to occur during organizational restructurings, it was expected that job strains would increase as well.

Hypothesis 1a: Role conflict, ambiguity, and overload will be greater following divestiture than prior to divestiture. **Hypothesis 1b:** In addition, job satisfaction, attitude toward divestiture, and organizational commitment will be lower following divestiture than prior to divestiture.

Personal Coping Resources

In her 1988 study of stress at American Telephone & Telegraph, Ashford found that the availability of certain "coping resources" helped reduce the level of job stressors experienced by employees during the court-ordered restructuring of AT&T. Ashford hypothesized that coping resources would be related to the level of job stressors perceived in the work environment and also to overall job strain experienced by the employee. She further hypothesized that coping resources would moderate the stressor-strain relationship.

Coping resources have been defined as "a complex set of personality, attitudinal, and cognitive factors that provide the psychological context for coping. Such resources are relatively stable dispositional characteristics that affect the coping processes and are themselves affected by the cumulative outcome of that process" (Moos & Billings, 1982: 215). Among the personal coping resources measured by Ashford were self-efficacy, personal control, self-esteem, freedom from self-denigration, and tolerance for ambiguity. People with high feelings of self-efficacy have been found to persist longer in trying to deal with stressful situations (Moos & Billings, 1982). A number of studies have found that a sense of personal control reduces the feelings of threat experienced during stress (Anderson, Hellreigel, & Slocum, 1977; Averill, 1973; Burrows, Cox & Simpson, 1977) while self-esteem and freedom from self-denigration have been cited as major coping resources since they represent an individual's overall level of self-acceptance despite changes occurring in the environment (Moos & Billings, 1982; Pearlin & Schooler, 1978). Finally, Ashford measured tolerance for ambiguity, since individuals more tolerant of ambiguity should be less affected by the high level of uncertainty common to major organizational transitions. The job stressors measured in her study included three indices of "uncertainty," and one measure of "perceived disruption." All five of the coping resources were significantly correlated with each of the four job stressors and a measure of job strain (overall "feelings of stress"). Among

the coping resources measured, the sense of personal control was most strongly and consistently related to job stressors and overall job strain. In addition, she found that personal control and tolerance for ambiguity moderated the relationship between job stressors and job strain with the relationship between stressors and strain being weaker for those individuals high in perceived personal control and with a high tolerance for ambiguity. These results were consistent with earlier findings in a study of Navy hospital personnel by Tetrick and LaRocco (1987). Tetrick and LaRocco found that measures of personal understanding, prediction, and control (very similar to Ashford's personal coping resources) were negatively related to perceived role stressors. These stressors were, in turn, negatively related to job satisfaction. Tetrick and LaRocco also found that personal control had a significant direct impact on job satisfaction. Personal understanding and control were found to moderate the negative relationship between role stressors and job satisfaction.

Other Coping Resources

Both Ashford and Tetrick & Larocco's studies focused on the impact that personal coping resources had upon stressors and job strain. These were resources residing within the individual's personality, attitudes, or cognitive structure that helped the person react less negatively to job stressors. Resources that these studies did not include come in the form of socio-emotional support, information, structural mechanisms within the organization, or other forms of tangible, external aid that affect the perception of stressors in the work environment and/or the actual strain experienced by the employee. Given the magnitude of organizational restructuring such as occurred at AT&T, it seems likely that employees need to draw on both personal and other resources to cope adequately with job stressors.

One coping resource that has received considerable attention in the stress literature is social support. Leavy defined social support as "the availability of helping

relationships and the quality of those relationships" (1983: 5). Kaufmann and Beehr (1986) distinguish two types of social support -- emotional (empathy and caring) and tangible (as when co-workers provide information about the stress situation that aids the employee in dealing with it, or when others help the individual develop new methods to cope with a particular stressor). Social support may come from supervisors, co-workers, or family and friends. Much of the research on social support has tried to determine whether social support has a direct effect upon stressors and work strain and/or whether it "buffers" the relationship between stressors and strains. This buffering hypothesis suggests that social support interacts with job stressors so that the relationship between stressors and strain is stronger for individuals with low levels of social support than for those with high levels of support. For example, if a measure of job dissatisfaction were used as an index of overall job strain, individuals with low levels of social support would show a strong relationship between the level of job stressors and job dissatisfaction. This relationship would be much less strong for employees with high levels of social support. While some studies have found support for the buffering hypothesis (Kobasa & Puccetti, 1983; Sandler & Lakey, 1982), more recent research seems to suggest that social support has a direct rather than buffering effect on job stressors and strain (Fisher, 1985; Ganellen & Blaney, 1984; Ganster, Fusilier, & Mayes, 1986; Kaufmann & Beehr, 1986).

Other forms of coping resources that have not received much attention in the stress literature are (1) supervisors or co-workers who are technically competent and influential, (2) organizations within the work environment (such as unions) that serve as advocates to protect the interests of employees, and (3) other formal groups, such as quality circles, that have direct influence upon policies and procedures on the job. Some might argue that these resources can be subsumed within the general category of "social support." However, we suggest that this is not the case for the following reasons. These "external coping resources" may impact stressors and strain in one of

two ways. First, external resources may operate indirectly to reduce stressors and lessen strain by increasing an individual employee's perceived personal coping resources. For example, social support in the form of warmth, trust and caring is related to an employee's sense of self-esteem (LaRocco & Jones 1978). Tangible social support in the form of information may increase the employee's knowledge about the work situation and thus increase the individual's perceived self-competence and control over the situation (Cohen & Wills, 1985). Tangible support may also be in the form of direct aid to the employee as in the provision of financial or material resources, or other direct services which increase the individual's ability to cope with stressors. Most of the research on social support has taken this "indirect" view of its impact, i.e., that social support operates primarily through its effect on personal coping resources. However, external coping resources may also act directly, as when influential supervisors or union stewards directly reduce the level of job stressors in the work situation or can be counted upon to represent the employee's best interests. An employee may feel no increased sense of personal control, self-efficacy or competence because of this. No direct aid or services are provided to the employee. In this situation, one might refer to the impact of the supervisor or union steward as providing a form of "vicarious control" or safety. Likewise, the presence of quality circles or other forms of participative decision-making groups may be viewed by an employee as an important external coping resource, even when the individual plays little actual role in the group itself. It would seem that the ability of external coping resources to increase the employee's sense of vicarious control may be particularly important in situations of major organizational change. Note - for the remainder of this paper we will refer to these other forms of coping resources as "social support" and "external resources."

Ashford's model of the relationships among personal coping resources, job stressors, and strains needs to be expanded to include the concept of social support and external coping resources. Given the magnitude of many organizational restructuring,

the availability of external resources (whether or not they directly impact an individual's own personal sense of control or competency) would seem an important factor in understanding the stress and strain experienced by employees. Personal coping resources, social support, and external resources will affect job strain both directly and indirectly through their impact on perceived level of job stressors and their moderating effect on the stressor-strain relationship. The major hypotheses that can be derived from such a model are:

Hypothesis 2: Job stressors will be negatively correlated with job strains.

Hypothesis 3: Personal coping resources, social support, and external resources will be negatively related to the perceived level of job stressors.

Hypothesis 4: Personal coping resources, social support, and external resources will be negatively related to experienced job strain.

Hypothesis 5: Personal coping resources, social support, and external resources will moderate the negative stressor-strain relationship.

This study introduces the concept of external resources as an additional, significant contributor to the prediction of job stressors and strain. Thus, a sixth hypothesis tested in this study states that:

Hypothesis 6: External coping resources will contribute significantly to the prediction of job stressors and strains over and above the effects of personal coping resources and social support.

Since data were collected before and after divestiture, we were able to test hypotheses 3-6 using data from both points in time. Ashford's 1988 study also examined the long term effects of coping resources on experienced job strain. She

found that stressors and coping resources measured one month prior to the AT&T breakup were significantly correlated with strain measured six months after the divestiture had occurred. The present study also examined long term effects of job stressors, personal and external coping resources and social support on job strain. Hypotheses 3 through 6 were tested using data collected prior to divestiture to predict data collected following the divestiture.

METHODOLOGY

The data for this study were collected from 110 non-management employees of the marketing and collection division of one of the major operating units of American Telephone & Telegraph (AT&T). Phase 1 of the data collection took place in 1981 prior to the break-up of AT&T. Phase 2 took place after the break-up. One hundred and ten employees completed the surveys at both Phases 1 and 2 and their data are the basis for this study. Some employees did not complete all questions and therefore some of the analyses reported are based on fewer than 110 respondents.

Job Strain

Three measures of job strain were used--- job satisfaction, commitment to the organization, and attitude toward the AT&T divestiture. Measures of job satisfaction and various aspects of commitment to the organization have been used as measures of job strain in a wide variety of studies (Ganster, et. al. 1986; Jackson, 1983; LaRocco & Jones, 1978; Seers, McGee, Serey, & Graen, 1983; Tetrick & LaRocco, 1987). Because of the significance of the divestiture to employees, it was thought that their attitude toward it would provide an additional measure of job strain at the time of the study. Job satisfaction was measured using 11 items developed for this study and based upon interviews with employees in the organization. A 5-point "very dissatisfied - very

satisfied" response format was used with a high score indicating a high level of satisfaction. Commitment was measured using 10 items selected from the Mowday and Steers (1979) Organizational Commitment Questionnaire, with responses made on a 7-point "strongly disagree - strongly agree" scale (high score = high commitment). A 10-item attitude toward divestiture scale was constructed, also using a 7-point strongly disagree - strongly agree response format (high score = positive attitude toward the divestiture). Coefficient alphas for the three scales at both Phase 1 and Phase 2 are: (1) satisfaction = .80/.86, (2) commitment = .86/.89, and (3) divestiture = .72/.78.

Job Stressors

Role conflict, ambiguity, and overload were measured using four items for each scale adapted from the Michigan Organizational Assessment Questionnaire (Camman, Fichman, Jenkins & Klesh, 1979) and the role ambiguity and conflict scales developed by House, Rizzo and Lirtzman (1970). Coefficient alphas for the conflict, ambiguity, and overload scales (Phase 1/Phase 2) are .72/.75, .84/.74, and .75/.75 respectively. A factor analysis of the 12 stressor items showed that they could be combined into a single scale (coef. alphas Phase 1/Phase 2 = .80/.83). However, as Jackson and Schuler's (1985) meta-analysis of job stress research indicated, although role conflict and ambiguity are correlated with one another, they are often differentially correlated with other variables. As a result, analyses were conducted using both the overall stress scale and the three separate scales. Results are reported for individual stressors only when they appear different from the overall results.

Personal Coping Resources

Ashford (1988) measured five different aspects of personal coping resources. However, the results from her study indicated that perceived personal control was most strongly and consistently related to measures of job stressors and strain and

served as a buffer for the stressor-strain relationship. Perceived personal control was measured in the present study using four items concerning job "autonomy" from the Job Diagnostic Survey (Hackman & Oldham, 1975). Coefficient alphas (Phase 1/Phase 2) were .50/.52. Given the low reliability for the JDS items at Phase 1, an additional four item measure of perceived personal control was added during the second phase of the survey, e.g. "When I look at it carefully I realize that it is impossible to have any influence over what our company does." A 5-point, strongly disagree - strongly agree response scale was used. A high score indicated a high level of perceived control. The coefficient alpha for this new item scale was .73.

Other Coping Resources

Two types of other coping resources were measured. The first was the traditional concept of social support which has been widely studied in the stress literature. Among the potential sources of social support, research has indicated that support from the supervisor may be of predominant importance in work settings (e.g., Caplan, Cobb, French, Harrison, & Pinneau, 1975; LaRocco & Jones, 1978). A ten item measure was developed to assess supervisory social support. A 5-point "almost never - almost always" response format was used, with a high score indicating a high level of supervisory support. These 10 items measured both the socio-emotional aspect of supervisory support as well as more tangible and direct aspects of that support. Example items include "treats me with respect as an individual," "gives me helpful suggestions about how to do my work," "is available to listen when I need to talk about my job." Coefficient alphas (Phase 1/Phase 2) for the supervisory social support scale were .91/.92. Cohen and Wills (1985) note that informational support is also a key aspect of the overall social support in the environment. A four-item scale was devised to assess openness of communication. The scale used a 5-point, "not at all open - completely open" response format to assess the extent to which the supervisor, people

in the employee's own department, people in other departments, and union officials were open in their communication and provided information to the employee. Coefficient alphas (Phase 1/Phase 2) for the communication scale were .50/.65. An overall measure of social support was computed by standardizing the individual supervisor support and openness of communication scale scores and summing. Only results relating to the overall scale are reported (since analyses showed no significant differences in the results of the separate scales).

The second type of coping resources measured were those described earlier as influencing the level of "vicarious control." Three scales were used to measure aspects of external coping resources. A five item scale using a 5-point, "no influence - a very great deal of influence" response format was adapted from a methodology suggested by Tannenbaum (1968) to assess the perceived influence of non-management employees, union representatives, the immediate supervisor, the second level manager, and the third level manager in the employee's work area. Coefficient alphas (Phase 1/Phase 2) for this scale were .78/.87. Three items, each with their own response scale were developed to measure the extent to which the employee perceived that quality of work life programs operating in the division were effective, e.g., "Is the [QWL] committee operating in your area effective" (see Thacker & Fields, 1987). Coefficient alphas for the QWL scale were .85/.91. Finally, five items with a 5-point, "no influence - a very great deal of influence" response format were used to assess the perceived level of influence of specific union officials and union membership, e.g., local president, local officers other than president, etc. (adapted from methodology suggested by Tannenbaum, 1968). Coefficient alphas for this union influence scale were .38/.46. While these reliabilities are quite low, the scale was used in subsequent analyses since there was no real expectation that all union representatives would be seen as equally influential. The low reliabilities simply mirror this reality. A total measure of external

resources was obtained by standardizing the three individual scales and summing. Only results relating to this overall scale are reported.

RESULTS AND DISCUSSION

Repeated measures ANOVA, correlation and hierarchical regression analyses were used to test the hypotheses in this study. Means, standard deviations, and number of valid cases for each of the primary variables for both Phase 1 and Phase 2 are presented in Table 1.

Insert Table 1 About Here

Hypothesis 1a stated that role conflict, ambiguity, and overload would be greater following divestiture than prior to it. A repeated measures analysis of variance was conducted to test this hypothesis. No significant differences were found between Phase 1 and Phase 2 levels of conflict, ambiguity, and role overload. Hypothesis 1b stated that job satisfaction, attitude toward divestiture, and organizational commitment would be lower post-divestiture than pre-divestiture. The mean level of commitment, satisfaction, and attitude toward divestiture were all significantly lower following the divestiture ($p, .05$). The lack of significant differences between Phase 1 and Phase 2 level of role stressors may be due to the fact that during Phase 1 employees were already aware of the pending divestiture. Considerable disruption of their regular work environment was already occurring or anticipated. Levels of job stressors were likely to have been rather high. Although statistically significant, the differences in job strain levels were quite modest. This was again, probably due to employees already being aware of the implications of divestiture, and this knowledge having an impact on

their commitment to and satisfaction with the organization, and their overall attitude toward the upcoming divestiture.

Correlations were computed between measures of job strain, job stressors, personal coping resources, social support, and external coping resources to test hypotheses 2 to 4 (see Table 2). Correlations presented in Table 2 are for data collected at Phase1 and Phase2 in the study. Correlations associated with variables collected during Phase 1 of the study and correlated with dependent variables collected at Phase 2 are also given in Table 2.

Insert Table 2 About Here

Hypothesis 2 stated that job stressors would be negatively correlated with experienced job strain. Strong support for this hypothesis was found in both pre- and post-divestiture data. Overall level of role stressors was significantly and negatively correlated with job satisfaction and commitment pre- and post divestiture. It was also correlated with attitude toward the divestiture for data collected in Phase 2. The separate role stressor scales (overload, conflict, and ambiguity) showed the same pattern of correlations, except that role ambiguity correlated significantly and negatively ($-.26, p < .01$) with attitude toward the divestiture at Phase1 while overall stressor level, role overload, and conflict did not. These results are not surprising, and are consistent with a large body of research on the job stressor and job strain relationship. It is interesting that the relationship between stressors and attitude toward divestiture was not significant pre-divestiture (except for role ambiguity), but was very strong and negative at Phase 2. Employees may have felt that the stressors experienced in Phase 2 were more directly attributable to changes associated with divestiture than was the case during Phase 1 --- thus strengthening the correlation between stressor level and attitude toward divestiture. In the case of the significant

relationship between role ambiguity and divestiture attitude in Phase 1, it may be that the conflict and overload present in the work environment during Phase 1 was not yet directly attributable to the upcoming divestiture, but ambiguity about work roles was.

Hypothesis 3 stated that personal coping resources, social support, and external coping resources would be negatively related to the perceived level of job stressors. Hypothesis 4 stated that these three types of coping resources would be negatively related to experienced job strain. Strong support for both of these hypotheses was found. In both Phase 1 and Phase 2 data, personal coping resources, social support and external coping resources were significantly and negatively related to overall level of role stressors. For Phase 1, personal coping resources, social support, and external coping resources were all significantly and positively related to levels of job satisfaction, commitment, and attitude toward divestiture. This was also the case for Phase 2 data. Correlations in Phase 2 indicated a somewhat stronger relationship between personal resources, external resources, social support and job strains as compared to Phase 1. Consistent with our argument presented in the previous paragraph, it may be that organizational changes during divestiture tended to heighten employees' awareness of stressors and strains present in their work environment and make more salient the coping resources available to them. It is interesting to note that during Phase 1, personal coping resources (autonomy) were most strongly related to stressors and strains, with social support and external resources showing a somewhat lower degree of relationship. In Phase 2, although personal coping resources remained strongly related, the relative strength of the relationship between stressors/strains and social support/external resources increased. This may indicate that employees realized that the changes taking place during divestiture were of such a magnitude the "outside help" was essential in dealing with them. The availability of this outside help, then, was more strongly related to the level of stressors which the employee experienced and the employees' attitudes toward the organization.

Turning to the Phase 1-Phase 2 lagged analysis related to hypothesis 3, there appeared to be no long-term relationship between coping resources or social support present in the pre-divestiture environment and the overall level of stressors experienced post-divestiture. In support of hypothesis 4, however, there was a significant positive relationship between Phase 1 perceived coping resources and job strain measures collected during Phase 2. This is consistent with earlier work on the relationship between personal control, job stressors and strains (e.g., Ashford, 1988; Burrows, Cox & Simpson, 1977; Tetrick & Larocco, 1987) and between social support, job stressors and strains (Ganellen & Blaney, 1984; Ganster, Fusilier, & Mayes, 1986; Kaufmann & Beehr, 1986).

Hypothesis 5 stated that personal coping resources, social support, and external coping resources would moderate (buffer) the negative stressor-strain relationship. That is, the relationship between job stressors and job strains would be less strong when high levels of social support, personal coping resources, and/or external coping resources were available. A series of moderated regression analyses was conducted to test this hypothesis. For both Phase 1 and Phase 2 data, regression equations predicting each of the three types of job strain were constructed by first entering the measure of overall job stressors, then each of the three types of coping resource measures (personal coping resources, social support, and external resources), then finally an interaction term (stressor X coping resource). For Phase 2 data, two measures of personal coping resources (autonomy and personal control) were tested separately. For the coping resource variables to act as moderators, this interaction term had to add significantly to the prediction of job strain. In only one instance was the buffering hypothesis supported. For Phase 2 data, social support moderated the relationship between overall level of role stressors and commitment to the organization ($p < .01$). This moderating effect was not found in Phase 1 data or when using Phase 1 data on coping resources to predict job strains in Phase 2. Although these results are not consistent

with Ashford's earlier study at AT&T, they do support a wide variety of studies on social support which have found a direct rather than buffering effect of social support on job stressors and strain (Fisher, 1985; Ganellen & Blaney, 1984; Ganster, Fusilier, & Mayes, 1986; Kaufmann & Beehr, 1986).

Hypothesis 6 stated that external coping resources would correlate significantly with job stressors and strains even when the effects of personal coping resources and social support were partialled out. Regression analyses were developed to predict overall level of job stressors and each of the three job strain measures using data for Phase 1 only, Phase 2 only, and then Phase 1 coping resource measures with Phase 2 job stressor level and strains. Personal coping resource and social support variables were first entered together into the equation, then the measure of external coping resources was entered next. In Phase 2, the two measures of personal coping resources (autonomy and personal control) were tested in separate regression analyses. For Hypothesis 6 to be supported, the measure of external coping resources had to add significantly to the prediction equation. The results of these analyses are presented in Table 3.

Insert Table 3 About Here

Moderate support for Hypothesis 6 was found. For Phase 1 data, external coping resources did not add significantly to the prediction of overall job stressor levels, added marginally to the prediction of commitment and divestiture attitude, and added significantly to the prediction of job satisfaction. In Phase 2, of the eight regression equations developed, external resources added significantly to prediction in five and was marginally significant in one other. When using Phase 1 data to predict data from Phase 2, external resources added significantly in two of four equations and was marginally significant in a third equation. For Phase 1 data, taken collectively

across all four dependent measures, external resources did not add much to the prediction of job stressors and strains. In Phase 2, after the realities of divestiture were having an impact upon employees, the predictive power of external resource measures increased --- except when predicting organizational commitment. However, the Phase 1 measure of external coping resources did add significantly to the prediction of Phase 2 commitment. It seems then, that external coping resources become more salient to employees as the actual impact of organizational change occurs. Prior to major organizational change, an employee's perception of personal control or immediate social support in the work environment may play the major role in determining levels of job stressors and strains. However, once major changes actually occur, although personal control and social support remain important, more "non-conventional" forms of external coping resources may play a bigger role. However, it is interesting that in determining organizational commitment during a change process, the presence of external coping resources prior to the actual change seems to have a greater impact than the presence of these resources after the changes are occurring. This may relate to a perception on the part of employees that the establishment of external resources prior to major organizational changes signals a commitment by the organization to help employees deal with the hazards of organizational restructuring --- and thus influences the commitment which the employee shows towards the organization as the changes occur.

In conclusion, this study has introduced the concept of external coping resources as an important factor in determining job stressor and strain levels during major organizational restructuring. Although the sample size of the study is relatively small and is limited to one organization, the results of the study indicate that this concept of external coping resources may be an important variable to consider in future studies of employee stress.

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TABLE 1
 Number of Cases, Means, and Standard Deviations for All Major Variables

Variable	<u>PHASE 1</u>			<u>PHASE 2</u>		
	Cases	Mean	SD	Cases	Mean	SD
<u>JOB STRAIN</u>						
Satisfaction	106	3.15	.6	109	3.02	.7
Commitment	106	46.63	9.3	109	43.15	10.1
Divestiture	103	34.92	7.8	110	32.54	9.7
<u>JOB STRESSORS</u>						
Overall	106	30.49	6.7	110	30.64	6.8
Overload	108	10.29	3.1	110	10.62	3.3
Conflict	110	11.00	9.4	110	11.25	3.0
Ambiguity	108	9.39	3.2	110	8.76	2.5
<u>PERSONAL RESOURCES</u>						
Autonomy	109	21.77	3.5	109	19.54	4.3
Pers. Control	PHASE 2 ONLY			110	9.75	2.9
<u>SOCIAL SUPPORT</u>						
Overall	101	.02	1.6	102	-.02	1.8
Supervisor	103	38.80	8.6	108	35.99	8.9
Communication	105	14.44	3.0	104	14.21	3.0
<u>EXTERNAL RESOURCES</u>						
Total External Res.	89	.06	2.1	98	.05	2.0
Up. Influence	107	17.71	4.7	109	15.77	5.6
QWL	92	8.28	3.3	103	10.97	3.1
Union Influence	105	15.23	3.0	104	14.83	3.0

TABLE 2
Correlations Among Job Strains, Job Stressors, Personal Coping Resources,
Social Support, and External Coping Resources¹

PHASE 1 WITH PHASE 1:

	<u>Satisfaction</u>	<u>Commitment</u>	<u>Divestiture</u>	Overall Job Stressors
JOB STRESSORS				
Overall	<u>-51</u>	<u>-40</u>	-16	---
<u>PERSONAL RESOURCES</u>				
Autonomy	<u>57</u>	<u>41</u>	<u>51</u>	<u>-26</u>
<u>SOCIAL SUPPORT</u>	<u>48</u>	<u>24</u>	<u>26</u>	<u>-29</u>
<u>EXTERNAL RESOURCES</u>	<u>52</u>	<u>29</u>	<u>49</u>	<u>-21</u>

PHASE 2 WITH PHASE 2:

	<u>Satisfaction</u>	<u>Commitment</u>	<u>Divestiture</u>	Overall Job Stressors
JOB STRESSORS				
Overall	<u>-59</u>	<u>-32</u>	<u>-43</u>	---
<u>PERSONAL RESOURCES</u>				
Autonomy	<u>70</u>	<u>47</u>	<u>45</u>	<u>-43</u>
Personal Control	<u>45</u>	<u>49</u>	<u>57</u>	<u>-36</u>
<u>SOCIAL SUPPORT</u>	<u>56</u>	<u>38</u>	<u>45</u>	<u>-20</u>
<u>EXTERNAL RESOURCES</u>	<u>58</u>	<u>40</u>	<u>51</u>	<u>-39</u>

¹ Decimal points deleted. All underlined correlations were significant at $p < .05$ (all correlations greater than .30 were significant at $p < .01$)

PHASE 1 WITH PHASE 2

	<u>Satisfaction</u>	<u>Commitment</u>	<u>Divestiture</u>	Overall Job Stressors
JOB STRESSORS				
Overall	-20	-23	-29	---
PERSONAL RESOURCES				
Autonomy	36	36	23	-15
<u>SOCIAL SUPPORT</u>	38	35	42	-10
<u>EXTERNAL RESOURCES</u>	52	52	42	-10

TABLE 3
 Regression Equations Using Measures of Personal Control, Social Support,
 and External Coping Resources To Predict Overall Level of Job Stressors and
 Three Measures of Job Strain¹

PHASE 1 DATA ONLY:

Dependent Variable	Independent Variables	<u>Partial r</u>	<u>R</u>	<u>Significance Of Change In R (p<)</u>
Overall Level Of Job Stressors	Autonomy	.37		
	Soc. Support	-.06	.38	ns
	Ext. Resources			
Commitment	Autonomy	.43		
	Soc. Support	.22	.47	.10
	Ext. Resources			
Satisfaction	Autonomy	.65		
	Soc. Support	.27	.68	.05
	Ext. Resources			
Attitude Toward Divestiture	Autonomy	.58		
	Soc. Support	.22	.61	.10
	Ext. Resources			

¹ Data in parentheses in Phase 2 and Phase1-2 sections of the table are for the individual role stressor, role conflict.