COMMUNICATION WITH EMPLOYEES FOLLOWING A MERGER: A LONGITUDINAL FIELD EXPERIMENT

DAVID M. SCHWEIGER
University of South Carolina

ANGELO S. DENISI
Rutgers University

This study examined the impact of a realistic merger preview, a program of realistic communications, on employees of an organization that had just announced a merger. Employees in one plant received the preview and those in another received limited information. Results based on four collections of data indicated that the preview reduced dysfunctional outcomes of the merger. Those effects continued over the duration of the study and, in some cases, measured attributes returned to levels comparable to their levels before the merger was announced. We discuss implications for organizations contemplating mergers or acquisitions and for researchers interested in such activities.

Although corporate mergers and acquisitions have become an important part of American commerce, it is only recently that researchers and practitioners have become concerned about their effects on employees (e.g., Bastien, 1987; Buono & Bowditch, 1989; Jick, 1979; Graves, 1981; Hirsch, 1987; Ivancevich, Schweiger, & Power, 1987; Marks & Mirvis, 1983, 1985; Napier, Simmons, & Stratton, 1989; Rentch & Schneider, 1989). Specifically, the problems that arise from uncertainty regarding the organizational and personnel changes that usually follow mergers and acquisitions have received considerable attention. That uncertainty creates stress for employees but cannot be easily avoided since many of the changes associated with mergers and acquisitions are evolutionary, and final outcomes are often not known during negotiations (Jemison & Sitkin, 1986a,b; Schweiger & Weber, 1989; Schweiger, Ivancevich, & Power, 1987).

Even when top managers do know what changes will occur, they are often unable or unwilling to discuss the changes with employees for a number of reasons discussed later in this article (Mirvis & Marks, 1986). Regardless of its cause, any failure to communicate leaves employees uncertain about their futures, and it is often that uncertainty, rather than the changes themselves, that is so stressful for employees. In such situations, it is not surprising that employees will seek other means for reducing uncertainty, such as reliance on rumors and other informal communications (Napier et
But rumors are not an effective means of reducing anxiety, since they tend to focus on negative, often quite inaccurate information (Rosnow, 1988). In fact, as Buono and Bowditch noted, during mergers and acquisitions activity, "rumor mills and the grapevine work overtime, leading to more anxiety and, in many cases, counterproductive behaviors. Often based on fears rather than reality, these rumors can significantly exacerbate employee anxiety, tension, and stress" (1989: 257). Further, the repetitive nature of rumors tends to strengthen people's belief in them (Rosnow & Fine, 1976), and so subsequent management attempts to deny well-developed rumors that possess even a grain of truth can easily compromise employees' faith in management's honesty (Rosnow, 1980, 1988).

Thus, it seems that the only way for management to deal with the anxiety that follows a merger or acquisition announcement is to communicate with employees as soon as possible about all the anticipated effects of the change. Failure to do so will increase uncertainty and employees' willingness to rely upon rumors, which can further increase anxiety. That uncertainty and anxiety can lead to such dysfunctional outcomes as stress, job dissatisfaction, low trust in the organization and commitment to it, and increased intentions to leave the organization (Ashford, Lee, & Bobko, 1989; Bastien, 1987; Buono, Bowditch, & Lewis, 1985; Gil & Foulser, 1978; Marks & Mirvis, 1983; Robino & DeMeuse, 1985; Schweiger & Ivancevich, 1985; Sinetar, 1981; Shirley, 1973). Those dysfunctions can, in turn, diminish productivity and increase turnover and absenteeism.

COMMUNICATIONS AND THE REDUCTION OF UNCERTAINTY

Despite the previous arguments concerning the dysfunctional outcomes of a lack of managerial communication, managers must consider other aspects of fully communicating anticipated changes to employees. First, as noted above, top management often does not know exactly what will happen until far into a merger or acquisition process, and so realistic communication may be impossible. A management might prefer communicating nothing to communicating information that later turns out to be incorrect. Perhaps managers should communicate what they know and assure that employees are never intentionally deceived. They can offer to answer questions and explain why some questions cannot be answered. Further, communication should focus on areas of particular concern to employees during mergers and acquisitions, such as layoffs and changes in pensions, work rules, and compensation (Ivancevich et al., 1987).

Some previous work, however, has suggested that management should avoid communicating realistically with employees during mergers and acquisitions. It has been suggested that such communications might alert competitors or cause employees to leave an organization rather than endure painful changes (Buono & Bowditch, 1989; Jemison & Sitkin, 1986a, b; Marks & Mirvis, 1986; Pritchett, 1985; Schweiger et al., 1987). Eisenberg and Witten
(1987) further warned that such communications can threaten management's ability to respond flexibly to changes during a merger or acquisition process.

Thus, it seems there may be equally compelling arguments on both sides of the question of whether management should try to communicate realistic information to employees during a merger or acquisition. Unfortunately, the empirical evidence that bears upon this question is extremely limited. In fact, only three studies have examined the issue, all retrospective studies that did not directly measure uncertainty or dysfunctional outcomes. For example, a study reported by Bastien (1987) involved interview data from 21 managers and employees from three different organizations that had been involved in acquisitions and suggested that communications might have increased performance and reduced uncertainty. The studies of Napier and her colleagues (1989) and Graves (1981), also conducted after the fact, produced similar suggestions for increased communication in the form of employee-management meetings and even a merger newsletter. Again, the researchers measured neither uncertainty nor any of the supposed dysfunctional outcomes said to follow uncertainty. Thus, these studies shed little light on the full impact of mergers and acquisitions on employees or on methods of softening that impact. Fortunately, a somewhat similar line of research in a different area may provide empirical support for the idea that communication is a necessary part of mergers and acquisitions activity and may even provide some theoretical justification for how and why such communication should work.

**Realistic Job Previews**

Like the employees of an organization engaged in a merger or acquisition, newcomers entering an organization also face high levels of uncertainty that can result in dysfunctional outcomes. Researchers and practitioners have suggested a mechanism called realistic job previews for reducing newcomers' uncertainty, bringing their expectations in line with reality, and helping them cope with the transition to their new jobs. Realistic job previews provide complete and realistic information about a job, including both its positive and negative aspects, usually in the form of a film or videotape. Space considerations preclude giving a thorough review of the literature on realistic job previews, and several excellent reviews exist (e.g., Breaugh, 1983; Dugoni & Ilgen, 1981; Premack & Wanous, 1985). In general, the results of studies in this area have been encouraging. New employees who receive previews tend to be more satisfied with their jobs and more committed to their organizations, to experience less stress, and to be less likely to leave than employees socialized through more traditional methods. It should be noted, however, that the sizes of the effects found in these studies have tended to be small, suggesting that factors other than communication play a role in the newcomer transition process (cf. Dean & Wanous, 1984; Dugoni &
Ilgen, 1981; Premack & Wanous, 1985; Reilly, Tenopyr, & Sperling, 1979; Wanous, 1980; Wanous & Colella, 1990; Youngblood, Mobley, & Meglino, 1983).¹

Although realistic job previews have generally been successful, there is some disagreement over the exact mechanisms through which they operate, and several of those mechanisms may be important to the process (Meglino, DeNisi, Youngblood, & Williams, 1988). Fortunately, a number of the proposed mechanisms seem relevant to the employees of companies involved in mergers and acquisitions. In fact, although job previews have generally been used to reduce overly optimistic expectations, some authors have suggested (Breaugh, 1983; Louis, 1980) that they can also function effectively to raise overly pessimistic expectations like those likely to occur during mergers and acquisitions. Meglino and colleagues (1988) provided some data supporting that suggestion. Realistic job previews appear to work by serving two functions important to employees entering new jobs: they reduce uncertainty by providing realistic information about the jobs, and they communicate to the employees that the organization they are entering cares about them and can be trusted (Dugoni & Ilgen, 1981; Meglino et al., 1988; Schein, 1968). Clearly, those functions are important to employees facing mergers and acquisitions as well. Providing realistic information will provide employees with a basis for action other than rumors and thus should reduce uncertainty, and the communication process, which symbolizes an organization’s concern for its employees, elicits increased commitment.

FOCUS OF THE PRESENT STUDY

As noted above, although there have been many suggestions that mergers and acquisitions are a source of uncertainty for employees, there are no data to support this suggestion. Therefore, one goal of the present study was to empirically determine if mergers and acquisitions activity does lead to uncertainty and its associated dysfunctional outcomes. Assuming that was the case, we also designed the present study to test the effectiveness of a communication program based on the model of realistic job previews. We intended the study to answer the question of whether such a program could mitigate the expected negative effects of mergers and acquisitions on employees.

The study was a longitudinal field experiment designed to provide a clear picture of the effects over time of both mergers and acquisitions and a communications program we called a realistic merger preview. Data were collected in two plants, an experimental plant in which the preview was introduced and a control plant in which the merger was managed more traditionally. We collected data at four points: before the impending merger was announced; following the announcement of the merger but before the implementation of the preview in the experimental plant; three days after

¹ Premack and Wanous (1985) is a meta-analysis.
the introduction of the preview; and four months later. Thus, it was possible to test the following hypotheses:

Hypothesis 1: The announcement of a merger will result in increases in uncertainty, stress, absenteeism, and turnover among the employees of an organization and decreases in their job satisfaction, commitment, intentions to remain, self-rated performance, and perceptions of the organization's trustworthiness, honesty, and caring.

This hypothesis simply tests the various negative effects mergers are supposed to have on employees. We predicted that those effects would emerge in both plants immediately following the merger announcement. To test the effectiveness of a realistic communications program in softening the negative impact of a merger, we hypothesized that:

Hypothesis 2: The institution of a realistic merger preview program will lower levels of uncertainty and dysfunctional outcomes.

This hypothesis does not suggest that a realistic merger preview will eliminate the problems associated with a merger, only that it will enable employees to deal with those problems better and so make the problems less severe. Finally, although there are no data to support hypotheses concerning long-term effects of realistic merger previews—and only limited support for the existence of long-term effects of realistic job previews (Meglino et al., 1988)—it seemed reasonable to test the following exploratory hypothesis:

Hypothesis 3: Over time, levels of uncertainty and its dysfunctional outcomes will continue to increase in the absence of a realistic merger preview but will stabilize or decrease after such a preview has been implemented.

METHODS

Overview of the Merger Situation

The research was conducted in two plants engaged in light manufacturing belonging to one of two merging Fortune 500 companies. Both firms sold diverse products and served diverse markets and were structured divisionally. The major impetus behind the merger was the belief of the firms' chief executive officers (CEOs) that considerable strategic advantages could be created by combining complementary product lines, sharing sales and distribution for certain product lines, and eliminating redundant functional and staff employees and facilities in a number of divisions. The merger would have a direct effect on only three divisions; the other divisions of the two firms, which were engaged in businesses unrelated to each other, would remain separate since no competitive advantages could be created by combining them.

The negotiations that took place between the CEOs of the two firms, characterized as friendly and cooperative by those involved, took approximately six months to complete. Both CEOs were committed to implementing
the merger with as few adverse effects on their organizations as possible. It was decided that the CEO of one of the companies (the one participating in this study) would become CEO of the combined firm, and the CEO of the other firm was to become its president and chief operating officer. Other staffing decisions concerning members of the top management team had not yet been completed by the end of the study.

Data were collected from two plants in a division directly affected by the merger. We collected data with the assistance of the firm’s vice president of human resources. We did not collect data from the other firm being merged because we planned the study before the actual merger agreement was signed. Involving the other firm prior to the signing would have been premature, and involving it afterward would not have provided us with the needed premerger baseline data. Moreover, time constraints created by the merger made the participation of the second firm unfeasible after the closing of the deal.

Four criteria guided selection of the actual plant sites for data collection. First, the sites had to be among those that the merger would affect so that the employees would be likely to react to it. Second, the sites had to have relatively few employees since top management wished to keep the study isolated from the larger employee population. Third, it was critical that the sites be matched on as many dimensions as possible so that reasonable comparisons could be made; and fourth, the sites needed to be geographically distant from each other to avoid any contamination of effects between plants.

Decisions made during negotiations suggested that the merger would directly affect the two plants chosen. One plant was located in the Midwest and the other in the Southwest. The two produced the same products and had approximately the same number of employees, management structures and systems, personnel practices, and volume of output. Neither plant was unionized.

The study was initiated after the vice president of human resources agreed to the study design, and both the company’s CEO and the manager of the division containing the two plants gave their approval and commitment. Employees at one plant (chosen by a coin flip) received a realistic merger preview, and employees at the other received information that the organization typically gave plant employees when organizational changes occurred. Data were collected at four time points as Figure 1 illustrates.

At time 1, four weeks before the announcement of the merger, a psychologist reporting to the vice president of human resources administered an employee survey to employees in both plants. Participation in the survey, which resembled a number of similar surveys the organization had conducted in the previous five years, was voluntary. Thus, there was no reason for any employee to view it as unusual. The survey was conducted on company time, and confidentiality was assured. At the time of this administration, there was no reason for employees to even suspect that the company
FIGURE 1
Timeline of Major Events

Time 1  Time 2  Time 3  Time 4  Time 5  Time 6
4 weeks 2 weeks 1 week 3 days 3 months

Baseline
Survey Administered
Merger Announced
Survey Administered
Realistic Merger Preview Program Begun
Survey Administered
Survey Administered
was planning a merger. Merger negotiations had been secret and, with both plants quite distant from the corporate offices, it was very unlikely that any hint of the impending merger could have leaked out. As an added precaution, however, we interviewed 30 employees from each plant after the merger was announced. The interviews revealed that none of these employees suspected the merger at the time of the first administration of the survey.

On the day that the company released the merger announcement to the press (time 2), all employees of the company received a letter from the CEO informing them of the merger. Top management was careful to insure that the letter reached employees before they read about the merger in a newspaper. The letter informed employees that the merger agreement had been signed and that the primary motivation for the merger was to improve the competitive position of both firms by combining complementary product lines and achieving economies of scale. The letter also stated that doing so would require the firms to share distribution and sales forces for certain products and that redundant facilities and jobs would have to be eliminated. The letter provided no specific details regarding individuals or work units.

At time 3, two weeks after the merger announcement, the survey used at time 1 was administered again. This administration permitted an assessment of the announcement's effects on employees. We chose the two-week interval to provide sufficient time for employees to react to the announcement. One week after the second survey administration (time 4), we began the realistic merger preview program (described in detail below) at one plant, hereby called the experimental plant. Employees at the other site, the control plant, received only the type of information the organization normally distributed in such circumstances.

Three days after the beginning of the preview program—ten days after the second survey administration—there was a third survey administration. Data from this collection point (time 5) allowed assessment of the short-term effects of the realistic merger preview intervention. Finally, a fourth survey administration (time 6) three months after time 5 allowed us to assess the longer-term effects of the intervention. After time 5, the manager of the control plant saw that employee morale was declining rapidly and became alarmed. Although no data had yet been analyzed, the vice president of human resource's perception that the preview had been effective in minimizing employee trauma in the experimental plant led to its immediate introduction in the control plant. Because of work demands and time constraints created by the merger, we collected no further data in either plant.

Respondents

The experimental plant had 126 employees, and the control plant had 146. Respondents to the first three administrations of the survey numbered 82 in the experimental plant and 86 in the control plant. Two employees from each plant quit their jobs and a number of employees withdrew from the study before the last administration, leaving 75 employees in the experimental plant and 72 employees in the control plant for the fourth admin-
istration of the survey. The average age of the respondents was 31.7 years; their average number of years with the company was 9.6; and 70 percent were men.

Data for employees responding all four times were compared to data for those who dropped out before the last administration. We made these comparisons at each of the first three administrations using t-tests. No significant differences emerged, suggesting that nonrespondent bias in the group of respondents to the fourth survey was not present in any variable measured. Further, there were no significant differences in age, years employed by the company, or gender between employees who participated in the study and those who did not participate in any part of it.

**Experimental Conditions**

**Realistic merger preview plant.** In addition to the letter from the CEO, employees in the experimental plant received specific information about how the merger would affect them immediately after that information became available. We considered two factors in designing the preview: the information to be communicated and the medium for delivering it.

Information was chosen in light of the company’s top management’s intentions to (1) provide employees with frequent, honest, and relevant information about the merger, (2) handle employees fairly, and (3) answer questions and concerns the employees might have to the fullest extent possible. Employees received information and answers to questions concerning layoffs, transfers, promotions and demotions, and changes in pay, jobs, and benefits that would take place in their work units. It is important to note, however, that although decisions regarding these issues had been made and announced, none had actually been implemented during the duration of the study. Thus, it was impossible for us to determine whether management lived up to its intentions to be fair and honest.

Following recommendations by practitioners, we chose three media to facilitate two-way communication between management and employees. The first was a merger newsletter, which was sent to each employee twice a month. The newsletter detailed the organizational changes that the merger had created. It also provided responses to questions solicited from employees. The first newsletter came out the day that the realistic merger preview program began; the questions answered had been solicited two days earlier. The second communication medium was a telephone hotline answered during work hours by a personnel manager who continually received updated information from the vice president of human resources. The hotline manager did not provide answers to specific questions concerning individual employees but only answers to questions about general organizational changes, whether they had appeared in the newsletter or not. After work hours, employees calling the hotline reached an answering machine. Answers to questions the personnel manager could not answer or that were left on the answering machine were posted on bulletin boards around the plant, and most of the answers also appeared in the next newsletter. Super-
visors informed employees about the hotline and how it worked two days before its inception, and the newsletter gave information on how to use it. Hotline questions focused on (in descending order of frequency): layoffs and severance benefits, other benefits, transfers, integration plans, compensation, and background information on the merger.

Finally, the experimental plant's manager met weekly with the supervisors and employees of each of the eight departments in the plant. Each meeting was held with only one department so that changes affecting that department could be specifically addressed. Each meeting lasted about one hour. Weekly briefings prepared jointly by the plant manager and the vice president of human resources supplemented these meetings. The briefings were used to maintain communication consistency and accuracy in the plant. The briefings generally addressed background information on the merger, layoffs and severance benefits, transfers, compensation and benefits, and implementation-integration plans for the combining firms.

Throughout the study, the plant manager also met personally with individual employees whenever a decision affecting them was made. We had no access to this confidential information, but we were assured that none of the information given or decisions made during these meetings contradicted the formal communications. In addition, employees met with their supervisors weekly to discuss work issues; such meetings had been a normal practice prior to the merger announcement.

Control plant. Employees in the control plant did not receive any formal communications concerning the merger other than the initial letter from the CEO. The plant manager, who was not aware of the realistic merger program in the experimental plant, was simply told that information would be coming as soon as it was available. This approach to communication had been typical of the organization for past organizational changes. Given previous practices and the short duration of the study (just over three months), we did not see this approach as imposing an unusual hardship on employees. Employees in this plant did, however, meet with their supervisors weekly to discuss work issues, as they had prior to the merger.

Measures

The survey administered at times 1, 3, 5, and 6 provided data on perceived uncertainty, satisfaction, intentions to remain with the organization, global stress, self-reported performance, and perceptions of the company's trustworthiness, honesty, and caring. The survey given at time 6 also included two manipulation checks. We obtained data on absenteeism and turnover from company records.

Perceived uncertainty. We measured this variable using a 21-item scale, which appears in the Appendix. The items covered different aspects of work life typically affected during major corporate restructurings. Respondents rated the extent of uncertainty associated with each aspect. The work aspects covered were those identified in previous research (Schweiger et al., 1987)
as sources of uncertainty during mergers and acquisitions. The items are also similar to those contained in measures of job insecurity (Ashford et al., 1989). A preliminary principal-component varimax-rotated factor analysis on time 1 data revealed that one general factor accounted for a significant portion of the explained variance on this measure.\(^2\) We deemed this factor adequate on the basis of analyses of eigenvalues and Cattell’s scree test (Weiss, 1971). Coefficient alphas for times 1, 3, 5, and 6 were .91, .95, .97, and .94. The results of the factor analysis, the high internal consistency reliabilities, and the support found for hypothesized relationships (discussed below) suggest that the scale used here is a valid and reliable measure of perceived uncertainty.

**Global stress.** We used a 14-item scale developed by Cohen, Kamarck, and Mermelstein (1983) to measure global stress. The items ask respondents to think about their feelings and reactions during a specific time period. For the present study, the time span differed for each administration and was defined as the time elapsed since the last administration. Employees rated their feelings and thoughts for each item on a five-point scale. Example items include: “In the last [period], how often have you been upset because of something that happened unexpectedly?” and “In the last [period], how often have you felt that you were on top of things?” Coefficient alphas for times 1, 3, 5, and 6 were .81, .86, .85, and .87.

**Job satisfaction.** A 5-item scale developed by House, McMichael, Wells, Kaplan, and Landerman (1979) was used to assess global satisfaction rather than satisfaction with any particular facet of a job. We used a global measure to avoid any potential overlap in item sampling with the uncertainty scale, which focuses on specific aspects of work life. Employees were asked to rate how satisfied they were on a three-point scale. Each item had a different anchor. Examples include: “In general, how satisfied would you say you are with your position in the organization?” and “Overall, I am satisfied with my position in the organization.” Coefficient alphas for times 1, 3, 5, and 6 were .95, .96, .96, and .98.

**Organizational commitment.** This variable was measured using the 15-item scale developed by Porter and Smith (1970). Employees used a five-point scale to rate their agreement or disagreement with each item. Items measured the extent of employees’ pride in working for the organization, perceived value congruence with the organization, and willingness to exert extra levels of effort on behalf of the organization, among other constructs. Coefficient alphas for times 1, 3, 5, and 6 were .89, .90, .91, and .88.

**Perceptions of the company’s trustworthiness, honesty, and caring.** A 3-item scale developed by Meglino and colleagues (1988) was used to measure this variable. Employees indicated agreement or disagreement with each item on a five-point rating scale. Items assessed the extent to which the

---

\(^2\) The factor analysis is available upon request.
company could be trusted, was honest in dealing with its employees, and cared what happened to employees. Coefficient alphas for times 1, 3, 5, and 6 were .91, .81, .86, and .90.

**Intentions to remain with the organization.** This variable was measured using a 5-item scale developed by Meglino and colleagues (1988) that assesses thoughts about leaving or staying as well as actual intentions to leave or stay. Employees used a seven-point scale to respond to items asking them to indicate their intentions to remain with the company, their thoughts about leaving, and their intentions to make a career in the company. The coefficient alphas at times 1, 3, 5, and 6 were .86, .89, .89, and .91.

**Performance.** Respondents rated their performance on a single-item scale by comparing themselves to others in the same job, with 1 for "way below average" and 5 for "way above average."

**Absenteeism.** We operationally defined this variable as the number of each individual’s excused and unexcused absences divided by the number of work days. Absenteeism for the baseline measure (time 1) was based on records for the 60 days before the merger announcement, and absenteeism for the remaining periods was based on records covering the actual days between survey administrations. To determine whether there were cyclical trends in absenteeism, we examined data for one year prior to the study. No significant differences in absenteeism rates among the four equivalent study periods emerged, so it appears unlikely that changes in absenteeism were due to cyclical trends.

**Turnover.** This variable was simply defined by whether or not an individual voluntarily left the company. Although data from the intentions measure indicated that numerous employees were thinking about leaving, only two employees from each plant actually quit during the time of the study. There were no layoffs during this time. To some extent, local labor market conditions influenced the low turnover rates—although intentions to leave were high, external opportunities for employment were not very good. Since there was almost no variance in actual turnover, we omitted it from subsequent analyses.

**Manipulation check.** To determine whether employees were actually aware of the realistic merger preview program, we asked two questions in the survey administered at time 6: “How often did management communicate about events related to the merger?” (1 = never, 5 = frequently) and “How useful to you was the information that management communicated about events related to the merger?” (1 = useless, 5 = very useful).

**RESULTS**

To assess whether the manipulation was effective, we used $t$-tests, finding that respondents in the experimental plant said they received significantly ($p < .05$) more frequent information than those in the control plant ($\bar{x} = 4.3$, s.d. = .87 vs. $\bar{x} = 2.4$, s.d. = .75). The former also said their information was more useful ($\bar{x} = 3.5$, s.d. = 1.05 vs. $\bar{x} = 2.3$, s.d. = .86).
We concluded that the employees in the experimental plant effectively received the realistic merger preview program.

Table 1 presents the means and standard deviations for all dependent measures found in both plants for each survey administration (times 1, 3, 5, and 6). Table 2 provides an intercorrelation matrix for all dependent variables measured at those times (a complete intercorrelation matrix for all dependent variables across all time periods is available upon request).

Hypothesis 1 predicts that, following the announcement of a merger, perceived uncertainty and dysfunctional outcomes will increase. Because intercorrelations among the dependent variables were high, we conducted multivariate t-tests in a multivariate analysis of variance (MANOVA) to compare responses from time 1 and time 3 for the two plants, using data from all employees who responded at both those times. Test statistics associated with these analyses indicated significant multivariate effects for both the experimental and control plant. Table 3 summarizes results.

For both plants, subsequent univariate (ANOVA) tests indicated significant increases in global stress, perceived uncertainty, and absenteeism; significant declines in job satisfaction, commitment, and perceptions of the company's trustworthiness, honesty, and caring; and no significant changes in self-reported performance. There was also a significant decline in intentions to remain with the organization for the experimental plant. Thus, the data provide strong support for Hypothesis 1: the announcement of the merger did seem to have a deleterious effect in both plants.

Hypotheses 2 and 3 were tested together in a series of multivariate and univariate analyses that longitudinally compared data for the two plants following the announcement of the merger. In order to assess the short- and longer-term effects of the realistic merger preview program, we compared differences between the two plants at times 5 and 6, the two survey administrations that occurred after the preview was introduced, using data from time 3 as covariates. Although there were no significant differences between the plants at time 3 (right after the merger announcement), we used these data as covariates to insure that any differences detected at the later survey administrations were not due to differential reactions to the merger announcement. Also, we saw time 3 as the appropriate covariate because we were interested in differences between the plants following the introduction of the preview program.

A multivariate analysis of covariance (MANCOVA) conducted on time 5 data with the time 3 covariates indicated a significant difference between the plants at time 5; Table 4 summarizes results. Univariate covariate analyses indicated that the experimental plant employees were significantly lower on perceived uncertainty and significantly higher on job satisfaction, commitment, and perceptions of the company's trustworthiness, honesty, and caring.

A similar MANCOVA to assess the longer-term effects of the realistic merger preview was conducted on the data from time 6, with the data from time 3 serving as covariates. The multivariate effect was significant. Subse-
<table>
<thead>
<tr>
<th>Variables</th>
<th>Time 1</th>
<th></th>
<th>Time 3</th>
<th></th>
<th>Time 5</th>
<th></th>
<th>Time 6</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control Plant</td>
<td>Experimental Plant</td>
<td>Control Plant</td>
<td>Experimental Plant</td>
<td>Control Plant</td>
<td>Experimental Plant</td>
<td>Control Plant</td>
<td>Experimental Plant</td>
</tr>
<tr>
<td>Global stress</td>
<td>2.50 (0.35)</td>
<td>2.48 (0.39)</td>
<td>3.04 (0.42)</td>
<td>2.91 (0.45)</td>
<td>3.05 (0.40)</td>
<td>2.93 (0.34)</td>
<td>3.32 (0.58)</td>
<td>2.91 (0.41)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>1.75 (0.37)</td>
<td>1.60 (0.39)</td>
<td>3.45 (0.66)</td>
<td>3.31 (0.68)</td>
<td>4.03 (0.64)</td>
<td>3.35 (0.78)</td>
<td>4.28 (0.78)</td>
<td>3.39 (0.76)</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>2.52 (0.53)</td>
<td>2.38 (0.49)</td>
<td>2.29 (0.65)</td>
<td>1.94 (0.57)</td>
<td>1.94 (0.63)</td>
<td>2.05 (0.58)</td>
<td>1.81 (0.70)</td>
<td>2.07 (0.56)</td>
</tr>
<tr>
<td>Commitment</td>
<td>3.24 (0.57)</td>
<td>3.08 (0.57)</td>
<td>3.04 (0.61)</td>
<td>2.88 (0.52)</td>
<td>2.82 (0.71)</td>
<td>2.85 (0.51)</td>
<td>2.72 (0.65)</td>
<td>2.89 (0.54)</td>
</tr>
<tr>
<td>Company's trustworthiness, honesty, and caring</td>
<td>3.28 (0.79)</td>
<td>3.07 (0.79)</td>
<td>2.97 (0.75)</td>
<td>2.64 (0.76)</td>
<td>2.50 (0.88)</td>
<td>2.55 (0.76)</td>
<td>2.23 (0.80)</td>
<td>3.00 (0.83)</td>
</tr>
<tr>
<td>Intentions to remain</td>
<td>5.82 (0.92)</td>
<td>5.65 (1.15)</td>
<td>5.52 (1.05)</td>
<td>5.23 (1.13)</td>
<td>5.06 (1.11)</td>
<td>5.13 (1.14)</td>
<td>4.84 (1.09)</td>
<td>4.92 (1.18)</td>
</tr>
<tr>
<td>Performance</td>
<td>3.33 (0.99)</td>
<td>3.37 (1.09)</td>
<td>3.23 (0.92)</td>
<td>3.38 (0.86)</td>
<td>2.92 (0.82)</td>
<td>3.09 (0.78)</td>
<td>2.59 (1.04)</td>
<td>3.37 (0.84)</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>0.00 (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.03 (0.05)</td>
<td>0.02 (0.05)</td>
<td>0.01 (0.05)</td>
<td>0.05 (0.20)</td>
<td>0.01 (0.02)</td>
<td>0.01 (0.01)</td>
</tr>
</tbody>
</table>

*Standard deviations are in parentheses. Statistics for times 1, 3, and 5 are for the full set of 86 control plant and 82 experimental plant employees, whereas for time 6 they are for the restricted set of 72 and 75 employees. For all times 1, 3, and 5 comparisons with time 6 data, we used the restricted set. The means and standard deviations for the restricted set are available upon request.
TABLE 2
Zero-Order Correlations Among Dependent Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Times 1 and 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Uncertainty</td>
<td>.28</td>
<td>.34</td>
<td>.27</td>
<td>.28</td>
<td>.36</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>2. Global stress</td>
<td>.32</td>
<td>.11</td>
<td>.14</td>
<td>.11</td>
<td>.14</td>
<td>-.07</td>
<td></td>
</tr>
<tr>
<td>3. Job satisfaction</td>
<td>.28</td>
<td>.15</td>
<td>.31</td>
<td>.23</td>
<td>.27</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>4. Commitment</td>
<td>.34</td>
<td>.19</td>
<td>.24</td>
<td>.47</td>
<td>.34</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>5. Company’s trustworthiness,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1. honesty, and caring</td>
<td>.22</td>
<td>-.09</td>
<td>.19</td>
<td>.43</td>
<td>.27</td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td>6. Intentions to remain</td>
<td>.29</td>
<td>.19</td>
<td>.31</td>
<td>.39</td>
<td>.21</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td>7. Performance</td>
<td>-.09</td>
<td>.04</td>
<td>-.05</td>
<td>.11</td>
<td>.08</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Times 5 and 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Uncertainty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Global stress</td>
<td>.34</td>
<td>.11</td>
<td>.16</td>
<td>.17</td>
<td>.18</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>4. Commitment</td>
<td>.31</td>
<td>.13</td>
<td>.27</td>
<td>.29</td>
<td>.42</td>
<td>-.08</td>
<td></td>
</tr>
<tr>
<td>5. Company’s trustworthiness,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1. honesty, and caring</td>
<td>.29</td>
<td>-.05</td>
<td>-.14</td>
<td>.34</td>
<td>.29</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>6. Intentions to remain</td>
<td>.36</td>
<td>.08</td>
<td>.22</td>
<td>.31</td>
<td>.15</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>7. Performance</td>
<td>.07</td>
<td>.05</td>
<td>-.09</td>
<td>.09</td>
<td>.03</td>
<td>.11</td>
<td></td>
</tr>
</tbody>
</table>

* Correlations for times 1 and 5 are above the diagonals, and those for times 3 and 6 are below.

sequent univariate tests indicated that the employees of the experimental plant were significantly lower on global stress and perceived uncertainty and significantly higher on job satisfaction, commitment, perceived trustworthiness, honesty, and caring, and self-reported performance.

An additional analysis compared the two plants at time 6, with data from time 5 serving as covariates, to provide a better look at the incremental changes in the effects of the preview program over time. The multivariate effect was again significant. Univariate effects indicated that the employees of the experimental plant were significantly lower on perceived uncertainty and significantly higher on job satisfaction, commitment, perceived trustworthiness, honesty, and caring, and self-reported performance. Thus, the realistic merger preview appeared to stabilize the level of dysfunctional outcomes, and this effect continued over time. In fact, the effects found in the fourth survey administration were stronger than those found for the third administration.

Finally, to provide a clearer picture of changes over time, we plotted changes over all time periods for each plant for representative dependent variables (Figures 2—4).

Analyses for differences between times 3 and 5 were especially enlightening. The multivariate effect was significant for the control plant but not for the experimental plant. Univariate effects for the control plant indicated a significant increase in perceived uncertainty and absenteeism and signifi-
<table>
<thead>
<tr>
<th>Analyses</th>
<th>Time 1 to Time 3</th>
<th>Time 3 to Time 5</th>
<th>Time 5 to Time 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control Plant</td>
<td>Experimental Plant</td>
<td>Control Plant</td>
</tr>
<tr>
<td>MANOVA</td>
<td>58.82***</td>
<td>59.78***</td>
<td>8.50***</td>
</tr>
<tr>
<td>ANOVA</td>
<td>12.51***</td>
<td>9.68***</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>24.93***</td>
<td>24.93***</td>
<td>15.08***</td>
</tr>
<tr>
<td></td>
<td>15.76***</td>
<td>9.46***</td>
<td>41.73***</td>
</tr>
<tr>
<td></td>
<td>16.81***</td>
<td>21.16***</td>
<td>1.16</td>
</tr>
<tr>
<td>Global stress</td>
<td>22.94***</td>
<td>29.48***</td>
<td>47.61***</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>17.47**</td>
<td>21.53***</td>
<td>18.66***</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>1.38</td>
<td>1.06</td>
<td>8.35***</td>
</tr>
<tr>
<td>Commitment</td>
<td>7.90**</td>
<td>8.53**</td>
<td>9.64***</td>
</tr>
<tr>
<td>Company's trustworthiness, honesty,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and caring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intentions to remain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absenteeism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>82</td>
<td>86</td>
<td>82</td>
</tr>
</tbody>
</table>

* p < .05
** p < .01
*** p < .001
TABLE 4
Summary of Univariate and Multivariate Results for Comparisons Between Plants

<table>
<thead>
<tr>
<th>Analyses</th>
<th>Time 5 with Time 3 Covariate</th>
<th>Time 6 with Time 3 Covariate</th>
<th>Time 6 with Time 5 Covariate</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANCOVA</td>
<td>11.77***</td>
<td>7.79***</td>
<td>6.24***</td>
</tr>
<tr>
<td>ANCOVA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global stress</td>
<td>2.89</td>
<td>12.20***</td>
<td>2.22</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>94.55***</td>
<td>35.21***</td>
<td>13.49***</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>7.60***</td>
<td>5.15*</td>
<td>5.09*</td>
</tr>
<tr>
<td>Commitment</td>
<td>9.80***</td>
<td>3.84*</td>
<td>4.65*</td>
</tr>
<tr>
<td>Company's trustworthiness, honesty, and caring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intentions to remain</td>
<td>1.51</td>
<td>1.14</td>
<td>1.41</td>
</tr>
<tr>
<td>Performance</td>
<td>1.30</td>
<td>2.20</td>
<td>12.33***</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>2.01</td>
<td>1.89</td>
<td>2.11</td>
</tr>
<tr>
<td>N</td>
<td>168</td>
<td>147</td>
<td>147</td>
</tr>
</tbody>
</table>

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

Significant decreases in satisfaction, perceptions of the company's trustworthiness, honesty, and caring, intentions to remain, and self-reported performance. Further, analysis of differences between times 5 and 6 indicated a significant multivariate effect for the experimental plant that was due to significant increases in perceptions of the company's trustworthiness, honesty, and caring and self-reported performance and a significant decrease in absenteeism. The multivariate effect for the control plant in this analysis was not significant, although there were significant declines in perceived trustworthiness, honesty, and caring and self-reported performance and a significant increase in global stress.

Taken together, these results provide strong support for the hypothesized stabilizing effect of the realistic merger preview over both the short term and the longer term. It is also interesting to note that mean levels of performance and perceptions of the company's trustworthiness, honesty, and caring in the experimental plant actually began to return to premerger levels—the differences in these variables at times 1 and 6 were not significant for that plant.

DISCUSSION

The results of the present study represent an important step in understanding the negative effects of mergers (and, presumably acquisitions) on a firm's human resources, as well as the beginning of an understanding of how to ameliorate those effects. First, these results provide strong empirical evidence that mergers do have the negative impact that scholars have suggested they have. Uncertainty appears to increase, and with that increase...
there seems to be a rise in stress and a decrease in satisfaction, commitment, intentions to remain with an organization, and perceptions of the organization's trustworthiness, honesty, and caring. Less consistent support was found for the hypothesized effects on performance and absenteeism.

Second, the present results suggest that realistic communications during a merger process in the form of a realistic merger preview can help employees get through the process. Specifically, realistic communications can help employees cope with the uncertainty of the situation and so insulate themselves from some of the associated dysfunctional outcomes. It is important to note here that the negative effects of mergers and acquisitions activity do not seem to simply go away with time but seem, instead, to get more serious. Therefore, the effects of the help with coping and insulation provided by the preview become more pronounced over time.

Few of the announced changes had come to pass during the duration of the study, so the present results say more about employees' ability to deal
FIGURE 3
Longitudinal Effects of Merger and Realistic Merger Preview on Job Satisfaction

with anticipated changes than about actual changes. Nonetheless, communicating the organization’s intentions did appear to reduce uncertainty for the employees of the experimental plant and increase their perceptions that the company was trustworthy, honest, and caring. Thus, we would expect the implementation of changes to have less impact in the plant in which the preview program was instituted. In fact, there is reason to believe that the realistic merger preview would have an increasingly beneficial effect as the changes were made and the employees saw for certain that the organization had been forthcoming with them (cf. Meglino et al., 1988). Furthermore, studies in social justice have indicated that even people who are unhappy about the outcome of a process will have less dissatisfaction and fewer dysfunctions than they might otherwise if they understand the process through open communications and see that it was fair (e.g., Greenberg, 1987; Greenberg & Folger, 1983).

The changes that occurred in the two plants over time are particularly interesting. In the control plant, changes continued to be significant and negative throughout the entire study. Rather than diminishing, the problems
associated with the announced merger continued to reverberate throughout the plant. The situation in the experimental plant was quite different. Immediately following the merger announcement, a change for the worse occurred, much as in the control plant. Once the realistic merger preview program was instituted, though, the situation in the plant began to stabilize. Uncertainty and its associated outcomes did not decline, but they stopped increasing, and over time, perceptions of the company’s trustworthiness, honesty, and caring and self-reported performance actually began to improve and move back towards their preannouncement levels. Thus, a realistic merger preview seems to function at least as an inoculation that makes employees resistant to the negative effects of mergers and acquisitions, and its effects may go beyond that.

Unfortunately, it was not possible to extend the present study over a longer period of time, so further studies are needed to examine how the process outlined here continues to develop. Specifically, future studies should examine whether incipient trends of improvement in experimental plants continue so that levels of all variables of interest actually return to their premerger levels, demonstrating reversal of the damage caused by an
initial merger announcement. Additionally, future studies should examine the progress of events in control plants. An examination of the changes in the control plant in the present study revealed that commitment and intentions to leave did not change significantly from time 5 to time 6. Perhaps these effects had bottomed out, and over a longer period of time, other effects might do the same.

Such speculation about longer-term effects are especially interesting in light of the fact that, despite a reasonably high level of stated intentions to leave, actual turnover was negligible during the course of the study. Clearly, we would expect that to change if data were collected over a period of time long enough to allow people to find alternative employment and act on their intentions. If actual turnover did increase, however, we would expect the employees who remained to be the most satisfied and committed (as well as the least mobile, perhaps). In the long run, the mean levels of satisfaction and commitment in the control plant would rise simply because of the higher attrition rates among the less satisfied and committed, so the situation in that plant might appear to improve when it actually had not. It is important to note that time horizon is a major part of research on mergers and acquisitions, as Marks and Mirvis (1983) and Buono and Bowditch (1989) noted; the latter suggested that as much as two years may be needed before the full impact of mergers and acquisitions activity can be assessed.

The results of the present study also raise some interesting questions about the mechanisms underlying interventions similar to realistic merger previews. The present results support the importance of realistic communications as a means of reducing uncertainty, but they also suggest that the symbolic value of such communications may be as important as their actual content. Organizations that communicate caring and concern to employees, whatever the communication's informational content, may be able to expect increased employee commitment. That commitment may be critical during a merger process (Schweiger & Walsh, 1990) and may allow management more flexibility in adapting to changes rather than the reduced flexibility that some authors have suggested follows realistic communication (e.g., Eisenberg & Witten, 1987). An interesting question that remains is whether the actual content of communications makes any difference. In this study, the mere process of communicating with employees may have been sufficient to yield the changes noted. It is possible that even if the content of communications were less accurate than it was here, or even inaccurate, the program would have been just as effective as long as it made employees feel that the organization cared about them. Future studies should be designed to investigate more fully the symbolic role of realistic communications to determine its importance relative to the importance of the content itself.

Several caveats should also be noted. First, although we drew upon the literature on realistic job previews for the rationale and approach used here, the present intervention differed from typical job preview programs in several respects. The content of the communications was, of course, different since the present intervention dealt with the uncertainty surrounding a
merger rather than that surrounding joining a new organization. Perhaps more critically, though, the realistic merger preview differed from most realistic job previews in both the mode and frequency of communications. A typical job preview involves only one communication, usually a film or videotape. The program used here involved face-to-face meetings and other two-way communications and extended over several months. These differences might well limit the extent to which the present results can be generalized back to the job preview literature, and future studies should examine the impact of these differences carefully.

A second caveat relates to the fact that the organization in the present study was involved in a friendly merger and that the anticipated changes included selective rather than massive layoffs. A hostile takeover or the announcement of more widespread layoffs might well elicit different responses from employees, and a realistic merger preview might be less effective in helping to deal with those responses. Moreover, the CEO of the company in which the study was conducted was to retain control of the post-merger organization, making changes in organizational culture less likely following the merger than they would have been with a change of leadership and so easing the transition to a new organization.

Third, the limited duration of the study prevented us from knowing whether the communicated intentions were ever implemented. We could never directly examine whether management behaved fairly and honestly. Finally, we examined organizational units that were going to be fully integrated with units of the combining firm. The responses of employees in units that are to be integrated may differ from the responses of employees in units that are to be left alone (Schweiger, Napier, & Csiszar, 1989). There is clearly a need for studies that consider the various contingency factors that surround mergers and acquisitions (Bastien & Van de Ven, 1986; Chatterjee, 1986; Napier, 1989; Schweiger & Ivanevich, 1987; Schweiger & Walsh, 1990; Shrivastava, 1986).

On a different note, the present study makes salient certain ethical dilemmas facing researchers studying certain organizational phenomena. As was noted here, the procedures followed in the control plant were those the organization had used to communicate changes in the past. Also, some previous research suggested that realistic communications should be avoided because they might scare off valued employees. Nonetheless, we judged it unlikely that the realistic merger preview would have a negative impact on the attitudes and perceptions of the employees. Thus, the experimental design employed here actually deprived employees in the control plant of a potentially beneficial intervention. Was causing that deprivation ethically responsible? We think so, given that the procedures followed in the control plant were those the organization would have followed if the research had not been conducted. But what if researchers interested in comparing the

---

3 Mirvis and Seashore (1979) discuss such dilemmas.
effects of the content and the symbolic value of communications needed to deprive a control plant of potentially important information about a planned merger? It is not our intent here to solve such ethical dilemmas, only to warn other researchers that these questions do arise and should receive careful consideration.

In conclusion, despite its limitations the present study represents a step in explaining how mergers and acquisitions affect employees. Organizational decisions to engage in such activities usually depend on strategic factors like the compatibility of product lines and potential access to new markets. The results of the present study make it clear, however, that such activities also have an impact on employees. Left unchecked, employee reactions to a merger or an acquisition could be extremely costly to an organization and could easily undermine aspects of the corporate strategy that led to the activity in the first place. We hope the present results also suggest that realistic communications can help employees cope with the effects of mergers and acquisitions and so reduce the negative impact these activities can have on organizational effectiveness. The present results indicate some promise for the realistic merger preview approach, and we hope they will lead to further research to determine how fully that promise can be realized.

REFERENCES


APPENDIX

To capture the uncertainty associated with different aspects of work life, we asked, “As you have thought about your future in the company, to what extent are you uncertain about the following?” Responses could range from 1, “never a source of uncertainty,” to 7, “always a source of uncertainty.”

1. Whether your pension plan will be changed
2. Whether you will have to relocate (transfer)
3. Whether you will get to work with the same colleagues
4. Whether you will have control over your job
5. Whether you will be laid off
6. Whether you will have enough information to do your job
7. Whether you will have to move to a new geographic location
8. Whether you will have influence over changes in your job
9. Whether you will have to take on more work than you are capable of handling
10. Whether you will be able to get promoted
11. Whether you will have to take a pay cut
12. Whether you will have to learn new job skills
13. Whether you will be forced to take a demotion
14. Whether you will get to work with people that you have become friends with
15. Whether you will be required to take on jobs that you have not been trained for
16. Whether there will be opportunities to advance in the company
17. Whether friends and colleagues lose their jobs
18. How performance will be measured
19. Whether the company will be a good place to work
20. Whether you will “fit” with the culture of the company
21. Whether the culture of the company will change

David M. Schweiger earned his D.B.A. degree in management at the University of Maryland; he is an associate professor in management at the University of South Carolina. His research interests include mergers and acquisitions and top-management-team decision making.

Angelo S. DeNisi is a professor of industrial relations and human resources in the Institute of Management and Labor Relations at Rutgers University. He received his Ph.D. degree in industrial/organizational psychology from Purdue University. His major research interests are cognitive processes in performance appraisal, job analysis, realistic job previews, and work values.