

# Developments in Business Simulation and Experiential Learning, Volume 25, 1998

## SIMULATION WITHIN A SIMULATION: JOB LAYOFFS AND EMOTIONAL REACTIONS

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### ABSTRACT

This study investigated the emotional responses caused by a simulated involuntary job turnover. Conducted through four distinct time phases, the study also examined the relationship between personality and emotional responses. The results showed that substantially different emotional responses were indeed displayed by subjects in the control and the experimental groups. Among the four personality traits known as the need strength, only ACHIEVEMENT was found to have a major effect on emotional responses.

### INTRODUCTION

In the 1980s, the business world was transformed by a series of corporate events, including business mergers and acquisitions (M&As), leveraged buyouts (LBOs), and takeovers. After a period of relative calm, another corporate feeding frenzy has begun, valued at \$164.4 billion dollars in the first half of 1995 alone. This record-setting figure, taken from the Wall Street Journal (8/1/95), does not even account for the megadeals of the summer of 1995, such as IBM/Lotus, Chemical/Chase Manhattan, Disney/Capital Cities, and Westinghouse/CBS. Although the corporate activities appear very similar to the one in the 1980s on the surface, the objectives in the 1990s are very different than those in the 1980s. The same corporate chieftains who previously looked for "instant gratification and the milking of corporate coffers" are now considering long-term growth and competition. This is due primarily to the lean years in the early 1990s when Corporate America was enthusiastically involved in downsizing, organizational restructuring, or business process reengineering (BPR).

Even though the objectives of the corporate activities have evolved over the last decade and a half, the end results are still the same, at least to those employees who were affected. This is because M&As, LBOs, and takeovers lead inevitably to layoffs and job losses. To employees who rely on paychecks to make ends meet, events such as M&As, LBOs, downsizing and BPR occur very suddenly. Even (Marks & Mirvis, 1985, 1986; Pritchett, 1985, 1987; Schweiger & Ivancevich, 1985).

That is why the following statement made by a United Technology Corporation's manager, who had witnessed his company downsize by some 30,000 employees in a span of six years, surprised no one. "I used to go to work enthusiastically." He said, "Now I just go in to do what I have to do. I feel loaded to the point of burnout. Most of my colleagues are actively looking for other jobs or are just resigned to do the minimum (Business Week, 4/22/96, 100)." This type of remarks is certainly not surprising and in fact will be heard time and again in the future especially when we hear what Gerald Greenwald, Chairman and CEO of United Airlines, had to say about this: "There is a fundamental geopolitical shift in the world of work that will continue for the next 25 years. The entire paradigm of work is changing. Layoffs will be a permanent feature of the landscape (20).

Preparing the groundwork for abrupt changes will present one of the greatest challenges to today's business leaders during the remainder of this decade. Unfortunately, during the recent traumatic periods, the major focus has been placed on the survival of the corporation. Very little attention has been given to the human side of the trauma. The potential costs to the individual have been all but ignored. It is in this domain that the study was conducted.

Ideally, a longitudinal design should be utilized so that information regarding feelings and emotions of both survivors and victims could be gathered for both pre-layoff and post-layoff at certain intervals. This way, both the short term and long term effects on victims and survivors may be assessed. However, it is very difficult to collect data pertaining to feelings and emotions of those who are the victims as well as the survivors of a layoff situation from the real business world in general. Moreover, it is rarely possible for business corporations to allow outsiders including academic researchers to interfere with or study their (former) employees. In rare occasions, where downsizing organizations do allow their employees to be studied, researchers are usually given one and only one chance to their questionnaire (Brockner, 1995). Against such a backdrop, it was decided that the exploratory study would be carried out in a laboratory setting using a business simulation game to create a hypothetical business industry.

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Business simulation games, which evolved from a combination of military war games, operations research, and role playing games, have been adopted at a steadily increasing pace with the help of new and powerful PCs. Already, the technique has proven to be useful and widespread in the business sector and in business schools at both the undergraduate and graduate levels. Since the intent of this study was to examine emotional responses toward an involuntary job change, a business environment had to be simulated. The use of a business simulation game was ideal for this purpose.

An involuntary job turnover simulation can mirror many real-life situations, such as a natural disaster or the taking of an examination (Folkman & Lazarus, 1985; Smith & Ellsworth, 1987) in that it may have up to four distinct phases. The first phase is the Initial Stable Phase, where nothing unusual is happening and everything is following a normal routine. This is followed by the Waiting (second) Phase, where a surprising and shocking announcement or revelation, but nothing else, has been made. In this phase, which is manifested by a high level of anxiety and possible emotional displays, people are generally kept in the dark and compound the problem with a high amount of rumor spreading and/or gossips. The third phase, known as the Outcome Phase, refers to the stage where specific details become clear. In the case of the involuntary job turnover simulation, the facts regarding who will or will not be affected have just been made public. This period is often referred to as a mourning or grief period. The Recovery (fourth) Phase is the one in which the remaining organizational members, having accepted the reality of the situation and having made the necessary adjustments, begin to settle into their respective routines once again. This phase continues until the next crisis comes along.

Individuals who survive layoffs usually react in one of two ways. They either decide to give their supports to the laid-off workers (victims) or to their employers. Who the survivors end up supporting depends, to a large extent, upon their prior affiliations and relationships with the victims (Brokner, et al, 1987; Brokner, 1990; Brokner, et al, 1993). In other words, the more a survivor identifies with the victims, the stronger his or her support for them will be. Conversely, if a survivor does not identify very strongly with a victim, that person is much more likely to side with the company, especially if he or she is likely to benefit from the situation. This notion is an extension of the balance theory advocated by Heider

(1958).

Most current theorists on emotions believe that human beings are fundamentally adaptive (Izard, 1977; Folkman & Lazarus, 1985). Because of this, emotions of an individual constantly evolve around various stressful events or changing environments. Since the subjects in this study worked closely for a substantial amount of time together before the occurrence of the involuntary job turnover, they should identify strongly with each other. It was therefore anticipated that emotional responses from the subjects would be very strong among all subjects regardless of the roles, victims or survivors, they played in the simulation.

The purpose of this study was intended to address three major issues. The first issue was to determine if an "emotional shock" associated with job layoffs could be realistically simulated in a laboratory setting. If so, will the simulated job layoff follow the normal four-phase scenario. The second issue was to compare the control and the experimental groups in terms of the emotional responses displayed by subjects of the two separate groups. The third and final issue was to study the relationships between subjects' emotional responses and their personality traits.

### RESEARCH METHODOLOGY

**Subjects.** A total of 193 (75 male and 118 female) senior business majors enrolled in six sections of a capstone business policy course served as the subjects of this study. Their ages ranged from 20 to 52 with a mean of 29 years old. The majority of them held full-time employment during the day, taking the course in the evening as part-time students. In fact, only ten of the students had never been employed prior to taking the course. The mean length of employment of the students was 10.2 years, varying from six months to 34 years.

For the purposes of the study, the subjects were assigned to either the control or the experimental group, depending on the section in which they were enrolled (see Procedure section below for more details of the group formation of subjects). The control group had 49 males and 63 females for a total sample size of 112 subjects. The ages in this group ranged from 20 years old to 52 years old with a mean of 29. The mean work experience for this group was 10.4 years. The experimental group had a total of 81 subjects, including 26 males and 55 females. The mean age

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was 28 years old and they ranged from 20 to 49. 9.5 years was the mean work experience.

**Instruments.** Two instruments were utilized in this study to measure the short-term emotional state and the long-term personality traits of the subjects. These instruments were the Izard's DES, Differential Emotion Scale, (1977) and the Manifest Needs Questionnaire (MNQ) of Steers and Braunstein (1976). The DES instrument consisted of 30 adjectives rated on a five point intensity scale to measure the short-term emotional state of each subject. These adjectives represented ten fundamental human emotions: ANGER, DISGUST, DISTRESS, DOUBT, ENJOYMENT, FEAR, INTEREST, GUILT, SURPRISE, and SHAME. Internal consistency for the ten fundamental human emotions for the four different phases in this study ranged from 0.84 to 0.97.

The Manifest Needs Questionnaire was utilized as a 20-item instrument with a seven-point Likert scale to measure needs strength for the long-term personality trait. It was constructed to measure the needs for ACHIEVEMENT, AFFILIATION, AUTONOMY, and DOMINANCE. This instrument was adopted in lieu of a personality construct for three reasons. First, it was especially designed for use in a work setting. Second, it was based on a behavior-oriented scale. Third, a high inter-correlation was found between this scale and the need scores of the Personality Research Form advanced by Jackson (1967). The internal consistency reliability test for this study had an alpha value of 0.81.

**Procedure.** In this business capstone policy course, a computerized business game was used to provide a simulated business learning environment. Subjects were assigned at random to teams of three or four persons each and there were totally 57 teams. Each team represented a simulated manufacturing company competing against the others. As the top management of their respective companies, each team made a total of fourteen simulated business decisions representing fourteen business quarters, or three and one half fiscal years. The total duration for the fourteen quarters in real time was about three and one half months.

The simulated involuntary job turnover was carried out in four distinct time phases. The first phase was the Initial Stable Phase. In the very first class of the semester, an introduction was provided about the nature and the objectives of the course. Students were also informed that a simulation within the business simulation game might be created. More specifically,

they were told that a simulated involuntary job turnover might take place as part of the course to portray what is going on in the real business world. After the briefing, both the DES and MNQ instruments were administered to all students. In addition, background information, such as age, gender, work experience, etc. was also requested and obtained.

At the end of the sixth week of interacting as a top management team, subjects were asked to complete a group dynamics and process instrument. They were further instructed to fill out a peer evaluation form on each and every one of his or her team members. Subjects were reminded to take the following factors into consideration while performing their evaluations: personal commitment and effort devoted to the group decision-making, percent of the work completed as assigned to or agreed upon, and individual contribution to the group decisions in terms of the quality and quantity. The time frame included in the evaluation was from the beginning to the point where Phase One ended. This form was later used to serve dual purposes: 1) as part of the final grade, and 2) the basis for the selection of the layoff victims. Subjects were not informed of the use of the form for the second purpose.

In the second phase, the Waiting Phase, subjects were then informed that a simulated involuntary job turnover was about to take place. This occurred after the seventh simulated business decision, which took place near the middle of the semester. While the subjects were surprised and still in shock upon learning of the news, they were asked to respond to the DES instrument for a second time. This lasted about thirty minutes, just long enough for the administering of the DES instrument to subjects and for subjects to discuss and exchange mutual concerns, including rumors and/or gossips.

The third phase, the Outcome Phase, began immediately after the completion of the second phase. An announcement was made to inform the subjects of the changes as a result of the simulated job layoff. The DES instrument was again administered to all subjects right after each subject had been informed of his/her status concerning forced job changes. Forced personnel turnover did not actually occur for members of the control group (C-Group). However, subjects in the experimental group were affected by the changes. In this group, one member of each team was let go by his or her current team and was then attached to a different team as a newcomer (needless to say, there is no guarantee that the management would

place a displaced worker in another unit of the company in the real business world). As a result, 27 subjects (12 males and 15 females) actually experienced the simulated job layoff within the experimental group. Those subjects would be identified as members of the victims group (V-Group). The remaining 54 subjects in the experimental group were considered as members of the survivors group (S-Group) who remained with their original teams and witnessed the departure of one of their teammates.

The fourth and last phase, the Recovery Phase, took place at the end of the semester, which was seven quarters after the trauma period (six weeks after the turnover in real time). In this phase, each subject was instructed to respond to the DES instrument for the fourth and final time. During the previous administrations of the instrument, subjects were specifically reminded to respond with their feelings and perceptions about the issue of an involuntary job turnover at that specific point in time. During the last administration of the instrument, subjects were instead asked how they felt about the simulated job layoff in general, having gone through the trauma period in person and having made the necessary adjustments according to their individual situations.

Again, another peer evaluation along with the group dynamics and group process instrument was done at the end of the final phase. It was then followed by a debriefing prior to the dismissal of the class or experiment.

**Data Analysis.** For the purposes of this study, only six emotional expressions were used. These were ANGER, DISGUST, DISTRESS, ENJOYMENT, FEAR, and INTEREST. Descriptive statistics were compiled and presented in Table I for the six emotions in each of the four time phases for each testing group.

A number of data analyses were conducted. First, an examination of changes in the emotional scale of the six variables was performed for the four different time phases. The second analysis, a Duncans Multiple Range Test, was carried out to examine the differences among different testing groups in terms of the four separate time phases. Finally, a correlation analysis was conducted to investigate the relationships between emotional expressions and personality traits of subjects.

## RESULTS

There were, as Table 1 shows, very few differences among the three testing groups for the first two phases except in other words, subjects responded similarly to the simulated event regardless of the testing groups of which they were part. However, the emotion expressions displayed in the third phase exhibited a totally different picture. The emotions expressed by subjects of C-Group went back down to the level similar to the level of the first phase. The emotions shown by subjects of the experimental group remained extremely high for both the S- and V-Groups, especially among the victims (subjects of V-Group).

In phase Four, the emotional levels returned to phase One levels for all except the subjects of C-Group. Subjects in C-Group actually had an even lower level for all six emotional expressions, especially with DISTRESS and INTEREST.

In short, the results displayed in the three Figures and Table 1 revealed that there were different emotional responses among the three different testing groups. As a result, it was necessary to ask two additional questions. First, were the differences statistically significant? Second, how did they actually differ from each other?

*Table 1 available from the author.*

It is obvious from Table 1, ANG, anger, was not found to be any significant differences statistically in the first two phases of the simulated layoff. During the last two time phases, subjects of the Control Group showed substantial differences in their expressions of ANG ( $f=3.53$  for T3;  $f=1.85$  for T4) than subjects of either the Survivors Group ( $f=9.50$  for T3;  $f=4.39$  for T4) or the Victims Group ( $f=11.15$  for T3 or  $f=4.82$  for T4), but within the experimental group itself, where the differences were not statistically significant.

The emotional expressions for DIG, disgusted, displayed by the entire subjects showed a similar pattern as that of ANG. In other words, no differences were detected among all three testing groups, but drastic differences were uncovered between subjects of the control and the experimental groups.

Unlike the first two emotions, namely ANG and DIG, DIT showed not only significantly statistical differences in the last two time phases, but also in the

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second time phase, where subjects of the survivors were more distressed ( $f=10.16$ ) than subjects of the Victims group ( $f=12.41$ ). Moreover, the emotion of Distress expressed by subjects of both S-Group and V-Group, was about the same from the statistical viewpoint, but was substantially more than the emotion exhibited by subjects of C-Group. Another word, the difference in the emotion of Distress expressed by subjects between the control and the experimental groups was substantially significant and subjects of the experimental group, including subjects of both V-Group and S-Group, were clearly more distressed. It is during the third phase, where the three testing groups showed the most differences among them. Specifically, subjects of V-Group had, as expected, the highest level of distress ( $f=11.22$ ). It was followed by subjects of S-Group ( $f=9.54$ ), and subjects of C-Group had the least amount of distress ( $f=3.60$ ).

In general, there was a lack of any significant differences statistically between the control and the experimental groups in Phase One except with the variable of DISGUST. With DISGUST, the differences were insignificant between C-Group and S-Group and between S-Group and V-Group, respectively, but statistically significant between C-Group and V-Group. The lack of significant differences in most areas between the control and the experimental groups was important because it offered a clear evidence that the random selection process for the inclusion of subjects in either the control or the experimental group was unbiased.

In the second phase, while the emotional levels were very high relative to the first phase, there were few differences again between the control and the experimental groups except those of DISTRESS. The emotion of DISTRESS displayed by those subjects who experienced the turnover ( $f=12.41$  for V-Group) and those who did not ( $f=10.67$  for S-Group) within the experimental group was significantly different statistically.

In Phase Three, experimental and control subjects exhibited different levels of emotions toward the manipulation in terms of the following variables: ANGER, DISGUST, and ENJOYMENT. First, those members in the experimental group were generally angrier than their counterparts in the control group ( $f=11.15$  for V-Group or  $f=9.87$  for S-Group vs.  $f=3.53$  for C-Group). This was also the case with DISGUST. Subjects in the experimental group were far more disgusted with the manipulation during this phase than

members of the control group ( $f=10.26$  for V-Group or  $f=9.5$  for S-Group vs.  $f=3.67$  for C-Group). In either case, there were no significant statistical differences in the emotions expressed by subjects within the experimental group.

The sharp differences between subjects of the control and the experimental groups were also visible in ENJOYMENT. Specifically, subjects in the C-Group ( $f=12.83$ ) seemed to enjoy the simulation more than subjects in either the V-Group ( $f=5.67$ ) or the S-Group ( $f=5.13$ ) at this point in time. This was due primarily to the fact that members of the C-Group did not experience the frustration of being permanently separated from their team members.

In the final phase of the manipulation, members of the victims group and the survivors group had a similar level of emotional responses on all emotional variables, except INTEREST. Clearly, those who were affected the most in the simulated involuntary job turnover, the V-Group, believed that the manipulation was more interesting ( $f=13.04$ ) than their counterparts in the S-Group ( $f=9.13$ ) or the C-Group ( $f=1.59$ ).

The results further indicated that subjects of the control group were far less interesting ( $f=1.39$ ) in the manipulation than subjects of the experimental group ( $f=9.13$  for S-Group or  $f=13.04$  for V-Group). In addition, the control group had clearly different responses from the experimental group for four other emotional variables, which were ANGER ( $f=1.85$  for C-Group vs.  $f=4.39$  for S-Group or  $f=4.82$  for V-Group), DISGUST ( $f=1.42$  for C-Group vs.  $f=4.28$  for S-Group or  $f=4.70$  for V-Group), DISTRESS ( $f=1.37$  for C-Group vs.  $f=4.61$  for S-Group or  $f=4.93$  for V-Group), and ENJOYMENT ( $f=2.89$  for C-Group vs.  $f=8.73$  for S-Group or  $f=8.22$  for V-Group). Obviously, subjects in the control group experienced all of the above emotions to a much smaller extent than their counterparts in the experimental group, for the simple reason that they were not as involved in the simulation.

Another interesting finding in the manipulation regarding emotional response was related to the variable of FEAR. FEAR was not found to be significantly different between subjects of C-Group ( $f=3.21$ ) and S-Group ( $f=3.89$ ), or between subjects of S-Group ( $f=3.89$ ) and of V-Group ( $f=4.52$ ). However, the differences between subjects of C-Group ( $f=3.21$ ) and V-Group ( $f=4.52$ ) were large enough to be statistically significant. Therefore, although FEAR was not an

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emotion normally associated with involuntary job turnover, it was nevertheless present in those subjects most affected by the situation.

**Personality Traits.** In addition to the research done on gender effects, an effort to study the effects of the four arousal seeking traits (ACHIEVEMENT, AFFILIATION, AUTONOMY, and DOMINANCE) on emotional response was also conducted. A correlation analysis was performed in all four time phases to examine the relationships among these four personality traits and the six emotional expressions. The results from this analysis were placed in Table 2 below.

As evidenced by the numbers shown in Table 2, there was only a slight correlation between personality and emotional response in the Stable (first) Phase. No pairs were found to have a statistically significant positive correlation, and only four pairs were found to have a significant negative one. Three of these four, DOMINANCE and DISTRESS ( $r = .12074$ ,  $p < 0.05$ ), AUTONOMY and ENJOYMENT ( $r = 0.18089$ ,  $p < 0.01$ ), and DOMINANCE and FEAR ( $r = .14489$ ,  $p < 0.01$ ) were found to have weak interrelations. AFFILIATION and INTEREST ( $r = 0.2025$ ,  $p < 0.01$ ) was the only pair found to have a moderate negative correlation.

Unlike the initial phase, the Waiting (second) Phase did not reveal any significant relationships between personality and emotional response.

*Table 2 available from the author.*

Several strong correlations were found in the Outcome (third) Phase of the manipulation. ACHIEVEMENT was found to be strongly correlated to all six of the emotional expressions, some positively and some negatively. The same was true for AUTONOMY, with one exception (DISTRESS), which was not significantly correlated. AFFILIATION had weak, negative interrelationships with ANGER, DISGUST, DISTRESS, and FEAR, while DOMINANCE was found not to be significantly correlated to any emotional expression.

In the Recovery (fourth) Phase. ACHIEVEMENT was shown again to be strongly related to all six emotional expressions. However, all of the correlations this time were negative. One other negative correlation was found in this phase, a weak one between AFFILIATION and ENJOYMENT. The correlations between AUTONOMY and ENJOYMENT (strong)

and AFFILIATION and INTEREST (weak) were both positive. No other significant correlations were found in this phase.

### DISCUSSION AND CONCLUSION

The objectives of the study were three-fold: 1) to test whether or not "emotional shock" could be realistically replicated via a simulated job layoff and, if so, would those emotions be displayed in four separated stages as shown in the real world situation; 2) to investigate the effects of such a simulated job layoff on emotional expressions displayed by subjects of the control and the experimental groups; and 3) to examine the correlations between subjects' personality traits and their emotional expressions.

The findings discussed above clearly indicate that emotional shocks" could be simulated through a job layoff simulation in a laboratory setting. Moreover, the emotional reactions expressed by the subjects showed that there were indeed four distinct stages, which are normally seen in real-life events and other experimental investigations (Folkni an & Lazarus, 1985).

The above findings were important for two reasons. First, "Programtism," as Brockner (1995, 330) put it, "sometimes outweighs methodological prescriptions." Needless to say, laboratory settings are far from perfect in conducting empirical research on the real world business problems from both the reality and the methodological viewpoints, they nevertheless serve as a very important alternative, especially when the real world business does not encourage, let alone discourage, the study of certain business issues, such as the one being studied here. Second, laboratory settings using simulated job layoffs may offer an alternative and cost-effective methods for training and development of employees to cope with and to ease the pain caused by potential situations derived from corporate downsizing, restructuring, or re-engineering.

In researching the second objective, it was found that the reactions of the subjects generally followed the expected patterns of their respective groups in each of the four time phases. However, the findings for FEAR, INTEREST, and DISTRESS were interesting, and warranted closer examinations.

Clearly, subjects in the three testing groups (C-Group, S-Group. and V-Group) during the third time (outcome) phase exhibited FEAR in proportion to their actual involvement in the simulation. Specifi-

cally, the subjects experiencing the turnover (V-Group) displayed the highest level of FEAR recorded from any of the groups. This occurred at the point in the third phase when they learned that they would soon be laid off from their respective teams. The subjects that did not experience the actual turnover but were still part of the experimental group (S-Group) displayed the next highest level of FEAR. Yet, it is the final, recovery, phase, where subjects' emotional expressions on fear offer some interesting insights. Since the experimental group as a whole experienced the job layoff manipulation together, it is understandable that the emotion of fear was no difference between victims and survivors. It is again not a surprise to see that members of the survivors group did not exhibit much difference in fear with members of the control group. This may be because members of the survivors group, though went through the job layoff manipulation, did manage to survive in the end and hence did not feel so fearful about the manipulation after all. This certainly is not the story between members of the control group and of the victims group because they expressed rather different feelings about *fear*. The subjects in the control group, where turnover did not actually occur, exhibited the least amount of FEAR. The three different levels of FEAR displayed by subjects in terms of their degree of involvement are understandable and seem to be consistent with Izard's theory of fear (1972).

The next emotional variable warranting a closer examination was INTEREST. The INTEREST levels exhibited by the subjects in the fourth phase closely followed the FEAR levels displayed in the third phase. The V-Group, which had experienced the highest level of FEAR overall, also indicated in the fourth phase that the simulated involuntary job turnover was the most interesting experience. The subjects in the S-Group found the manipulation to be somewhat interesting, while the subjects in the C-Group registered the lowest level of INTEREST. Since the fourth phase is the final stage of the manipulation, when subjects registered their emotions, they were actually asked to look back their experiences. In retrospective, those subjects that were mostly involved in the manipulation and invested the most emotionally in terms of fear believed that the simulation was an interesting one. Conversely, those that did not invest much overall in their emotion in fear considered the simulation to be somewhat less interesting perhaps simply because they were not drained emotionally into the simulation as much as subjects of the experimental group. Again, the findings are not surprising and are in line with previous findings, such as those of Folkman

and Lazarus (1986).

In terms of the feeling and emotion about DISTRESS, it obviously depended upon how deep they got involved in the job layoff manipulation. In general, the deeper they were involved in the manipulation, the more distressed they were, at least according to what Table 3 showed us in the third phase. This is further confirmed during the fourth and final phase, except the difference between the victims and the survivors disappeared. It is the findings during the second phase that is confusing. The only difference in the emotion of DISTRESS was showed by members within the experimental group. It is difficult to explain why this would happen because at that point in time no one knew who would eventually become victims of the manipulation. Hence, there was no reason for them to display different emotions with regard to DISTRESS. Whatever the reason, this finding would be an interesting issue to explore further in the future.

In examining the relationships between personality and emotion, some previous research was found to be relevant. For example, Cantor & Kihlstrom (1981) reasoned that cognitive processes are generally mediated by ones personal characteristics. From this, they concluded that the cognitive interpretation, encoding, and recall of traumatic events would vary from individual to individual. Therefore, a close relationship between personality traits and emotional response was expected in this study. To confirm this expectation, the personality traits known as the need strength (ACHIEVEMENT, AFFILIATION, AUTONOMY, and DOMINANCE) were utilized in the study.

The results showed that ACHIEVEMENT was the single most visible attribute, showing many strong associations with feelings and emotions. In the third phase, ACHIEVEMENT, for example, was found to be highly correlated with all six emotional expressions. Of these, ANGER, DISTRESS, DISGUST, and FEAR were negative correlations and INTEREST and ENJOYMENT were positive. Since ACHIEVEMENT was defined as the need to excel, the implication of this finding was that the success-oriented people tended to be more highly motivated and possessed a greater desire to perform well under adverse circumstances. Because of their personal characteristics, they were less bothered (distressed or disgusted) by the manipulation, even during the third phase. This finding seemed to complement the theory of achievement

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motivation that was discussed in Atkinson and Feather's book (1974).

AUTONOMY was another variable that was found to be strongly associated to many of the emotional variables. In the fourth phases, it was positively correlated to ANGER, DISGUST, and FEAR, and negatively correlated to ENJOYMENT and INTEREST. Since the need for AUTONOMY was defined as the need for independence, these correlations offered a viable explanation for the high level of ANGER, DISGUST, and FEAR. It was highly possible that the subjects viewed the involuntary job turnover as an infringement on their independence.

The absence of any strong associations between DOMINANCE and any of the six emotional variables was understandable. Since DOMINANCE was defined as the need to overpower or control others, subjects with a strong will to dominate were basically indifferent to the manipulation. This was true because the simulation did not provide the opportunity for them to control or dictate the situation. Consequently, their only recourse was to take a neutral stand, concentrating on areas in which they did have some control. The findings in this area were supported by research designed to study the nature of college-student depression and its relations to personality variables. In the related research, the combination of the DOMINANCE trait and a lack of control over depression were found to have subtle effects (Vredenburg, O'Brien, and Krames, 1988).

The most unexpected findings revealed by the study were perhaps related to AFFILIATION, defined as the need for keeping or securing friendly association with others. Before the study was conducted, the initial assumption was that some strongly negative correlations would exist between AFFILIATION and the emotional expressions. However, AFFILIATION was not found to display any strong relationships, negatively or positively, with any of the six emotions. In fact, only weak ( $p < 0.10$ ) negative relationships were uncovered for ANGER, DISTRESS, DISGUST, and FEAR. These relationships were only displayed in the third phase of the study.

The findings regarding AFFILIATION were inconsistent with the findings of an earlier study conducted by Larsen and Ketelaar (1991). It also conflicted with the common belief that close associations between survivors and victims prior to traumatic events, such as layoffs, would result in greater support being provided afterwards (Brokner, et

al, 1987; Brokner, 1990; Brokner, et al, 1993). In addition, the lack of strong correlations between AFFILIATION and emotional expressions made it impossible to confirm the balance theory proposed by Heider (1958). Although the findings in this study were disturbing, there were a number of possible explanations for the result. First, since the study was only a simulation, it was likely that the subjects did not treat it as seriously as they would have treated a real-life situation. A second, more plausible, explanation was that the victims did not actually become totally unaffiliated. In fact, they were soon reassigned to other teams and stayed with the new teams until the end of the semester. Because of this, their feelings of AFFILIATION were not as greatly affected as if they had become unemployed in a real-life situation.

Whatever the cause, the AFFILIATION findings were obviously a major shortcoming of the study. This was unfortunately inevitable given that the manipulation was carried out in a laboratory setting. Finally, since it was a laboratory-induced traumatic event, none of the concerns expressed by earlier research (Bies, 1987; Folger and Greenberg, 1985; Greenberg, 1987) actually became an issues which might ignite stronger emotional reactions. Those concerns include, but are not limited to: 1) whether the involuntary job turnover was a legitimate or not; 2) whether the victims were informed of the news in a fair and straightforward way; 3) Whether the decision rule and the procedure associated with it were properly handled or not; and 4) Whether the victims were fairly and properly compensated or not.

In conclusion, there are several findings of this study. The first is that an involuntary job turnover manipulation can be simulated in laboratory settings and can generally be expected to generate the desired effects. It could therefore be utilized as a training and development tool. Second, the personality traits known as the need strength can and may be expected to have close associations with subjects' feelings and emotions. But improvement is possible and necessary in the study of the effect of personality traits on emotional expressions. Finally, the findings uncovered in the study should not be generalized because it was conducted in a simulated environment in a laboratory setting.

### REFERENCES

Available from the author.