

THE EMOTIONAL EFFECTS OF DISRUPTION

A Thesis

by

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Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for degree of

MASTER OF SCIENCE

August 2004

Major Subject: Sociology

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ABSTRACT

The Emotional Effects of Disruption. (August 2004)

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Disruption is something that we must negotiate as part of our everyday lives. The context of disruption can vary in nature from being positive to being negative in nature. However, the emotional effects of the disruption have not been investigated in the social psychological literature. This study utilizes structuralized ritualization affect theory of social exchange, attribution theory, and the theory of relational cohesion in order to investigate the effects of disruption on the overall positive emotion of the actors involved and their feelings of cohesiveness with regard to their group.

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INTRODUCTION

Disruption in routine is a part of everyday life. When groups experience disruption, they must organize in order to adapt to the disruption. The disruption can vary in intensity from mildly annoying to life-threatening. In order to address how disruptions affect the group interaction and performance, we need to focus on the both the group and its individual members. It may be that some disruptions lead to negative emotions for group members making it difficult to adapt; on the other hand positive emotions may make it easier for groups to adapt. How disruption in group routine effects the emotions of the actors within the group has been examined very little in the social psychological literature. Theories of structural ritualization, the affect theory of social exchange, attribution theory, and the theory of relational cohesion all relate to the connection between emotion and disruption. Each of these is addressed and interrelated to derive hypotheses. In order to further analyze and separate the effects of disruption itself from the type of disruption, I will consider positive, negative, and neutral stimuli.

LITERATURE REVIEW

Theory of Structuralized Ritualization

The idea of ritual being a part of social interaction is by no means a new idea to sociology. Durkheim ([1915] 1965) speaks of ritualization as a social mechanism that generates emotion. Collins (1981) describes ritual as engaging in small group interaction that takes place over small periods of time resulting in emotion. Gusfield and Michalowicz (1984) further the idea ritual by speaking of a ritual's importance in helping to create an identity for the actors involved. This idea can be related back to Durkheim's idea a collective identity for an actor being formed by participating in group interaction. The hallmark of ritual versus other patterned behaviors is that rituals tend to be a symbolic or convey some sort of message that is meaningful to the actors involved. Ritual is also by nature a social event, which carries a meaningful message in the individual or group in which it is performed (Knottnerus 2002)

The theory of structural ritualization (Knottnerus 1997), discusses how actors learn rituals through observing others performing in a similar situation, then modeling that behavior in such a way that the rituals from the model are transmitted to the new group. The models for group behavior can come from large groups such as those seen in an entire society or culture on down to other similar groups within the same culture that the actor has previously participated in or observed. Sell et al. (2000) examine this aspect of the theory and confirmed that people tend to replicate the rituals modeled for them. This is maintained in talking patterns, leadership style, and overall ritual participation, even when there was no incentive for replications. However, when

ritualized practices are disturbed, disrupting the behavior that has been started, Knottnerus (2002) maintains that the group is destabilized as a result. The group must find a way to reduce the uncertainty created by the disruption. This process centers around reestablishing the rituals that were in place before the disruption occurred.

The rituals that become a part of the group are called ritualized symbolic practices and have four components that define their strength: salience, repetitiveness, homologousness, and resources. For a ritual to have salience it must be deemed important to the interaction by the actors involved. Furthermore the degree to which the ritual is important is also a factor in salience. The repetitiveness of a ritual is simply the frequency of the ritual that is observed and needs to be performed at similar points of time throughout the interaction period. Homologousness is the similarity or dissimilarity of different rituals to each other during the interaction. When the rituals are more similar they are said to have higher levels of homologousness. Resources are the things the actors need in order to perform the rituals. These can range from simply having people there to perform the ritual to the more elaborate props or even having the ability to acquire the appropriate props needed for the interaction. The combination of all these four components create the “rank” or strength of each ritual and enables us to predict the likelihood of a new group adapting the ritual into its own organization (Sell et al. 2000).

Affect Theory of Social Exchange

In the affect theory of social exchange (Lawler 2001), special attention is given to differentiate emotion from affect. Affect is a longer lasting, more “enduring” feeling

or sentiment felt by actors. In a sense, one can think of it as the feelings that hang on and create a more general feeling of being. (Lawler 1992). Emotion on the other hand, is a more bipolar and changing feeling towards or about something. Emotions can be anywhere on the spectrum from positive to negative, change in a manner of moments, and are more specific in their definition (Lawler 2001). So while a person's overall affectual feeling is happy, they can also be very angry over the fact that they just spilled coffee on their new white shirt.

In early studies on emotion (Lawler 1992), choice situations derived from rational choice perspectives are created and presented to groups of people who must resolve these situations. Groups of people are placed in situations where they are presented a task to complete with little or no instructions on how to go about completing the task. Because groups must decide on how to complete the task, there is uncertainty in the situation that creates emotional feelings of both fear and excitement. While excitement is generally considered a good feeling, one that we desire to maintain, feelings of fear are something that actors feel a need to reduce feelings of. By working together to complete the task, feelings of fear tend to subside and the actor's uncertainty about the situation is reduced creating more positive feelings from the interaction.

Feelings of control are essential in mediating how people feel about their interaction. When actors feel in control, they then tend to feel more positively. Conversely when control is taken away, negative feelings are generated. So, feelings of control create positive emotion and also generates feelings of "competence" which Deci (1975, 1980) maintains is important in goal-directed behaviors (Lawler 1992).

Additionally, Lawler (1992) argues that success in a task group creates a positive emotional reaction while lack of success generates more negative emotions. Further, the degree of interdependency of the actor and the group are important; when interdependency is higher, group members are more likely to identify with the group success or failure (Deutsch, 1949). While each actor's contributions may not be necessarily equal, they are difficult to separate into individual contributions to the task. The contributions of the group blend together. (Lawler 2001)

Using this theory, Lawler & Yoon (1993, 1996, and 1998) and Lawler et al. (2000), confirm the process of exchange affecting the emotional sentiments of group members. While each study varied in nature by type of exchange and/or group size, the emotional affects of exchange were confirmed. Additionally when individuals within groups exchanged and were successful, higher feelings of cohesion with the group were also reported confirming the theory.

Attribution Theory

Attribution theory examines how people assign cause. In the productive exchanges just described, there are positive emotions generated by reducing uncertainty and feelings of fear about the task and the negative ones that are potentially generated by those unable to negotiate the ability to complete the task for whatever reason. The source of emotions felt by the actors can be attributed to the actor, the other actors, or the contexts that are part of the interaction. If the event results in the feeling of positive emotion, the actor will feel pride if attributed to self and gratitude if attributed to other

actors. When negative emotions are the result of the event, then the actor can attribute the source of the emotion to one's self and feel shame or feel anger by attributing the source of the feeling to others (Weiner 1985).

To address how interruptions in productive exchange might affect emotions, we must further define the situation in which emotions play a part in exchange. In exchange situations, emotions are one result of the exchange observed. Depending on the types of emotions, be it positive or negative, they can be either rewarding or punishing to the actors involved. When negative emotions result and the actors are aware of these negative emotions they try to reduce negative feelings which are inherently punishing and increase positive feelings that are rewarding. Furthermore, the attribution of emotions generated during exchange do not simply stop with the actors involved but can generalize to the situation and even larger social groups that actors are a part of (Lawler & Thye 1999). Lawler (2001) furthers this idea by defining four social objects in which an actor can attribute emotions generated by exchange to: self, others, task, and social unit.

Theory of Relational Cohesion

Positive feelings created by exchange also tend to create commitment behavior. This means that actors begin to feel a part of the group, one cohesive unit as opposed to separate entities. This idea is the basis for the theory of relational cohesion. The theory of relational cohesion has three main tenets dealing with the aspects of emotion generation during exchange. Actors create networks of exchange that they will

maintain, if allowed, as time goes on. So a group working together exchanges information in a certain way and will tend to continue to exchange in similar fashion. Such exchanges create rituals that will serve to continue to exchange process. Secondly, when exchanges are successful, actors tend to feel positive emotions as a result of their success. If exchanges are not successful, actors tend to feel negative emotions about their interaction. The actor is then placed in the position of attributing responsibility for both the success/failure and the positive/negative emotions.

The degree of interdependence each actor feels towards their group members serves to influence feelings of cohesion. When there is relatively “high total and equal dependence,” i.e. needing the input/work/resources of all members equally and all have something to add, the rate that exchange occurs increases and consequently creates a higher sense of group cohesion. In other words, the more positive interaction coupled with interdependence of group members tends to lead to higher feelings of oneness with the group (Lawler, et al. 2000).

THEORETICAL FRAMEWORK

Disruptions to group exchange creates disorder and disturbance within the group. Rituals that were performed freely by the group are prevented from continuing. The positive emotions created by exchange are disrupted as well in this process. Group members must find some way to deal the event as individuals and within the interaction of the group. Not only can their emotions be affected, but group cohesion can be affected as well. When disruption occurs, interaction is stopped, emotion production is disrupted, and consequently group cohesion and perceptions of competence can also be affected by the disruption.

In this study I will be using productive exchange as the exchange format. Productive exchange is at least two individuals “coordinating efforts or combining resources to generate a joint good” (Lawyer 2001, 355). These “coordinating efforts” can be thought of as ritualized social practices. The task is completed only when group members do certain things and work together to accomplish these goals, i.e. through rituals that have been put into place. This is a result of the high level of interdependence created by this type of exchange. This in turn generates more feelings of shared responsibility and stronger emotional feelings than in other types of exchange.

Below I list the more formal exposition of my theory:

Assumption 1: (Attribution Theory) When individuals experience emotional responses, the individual attempts to attribute the emotion to themselves, others, or the context.

Assumption 2: (SRT) Disruption of ritualized practices by an external source generates an emotional response by the individual.

Assumption 3: The type of emotional response (i.e. positive or negative) tends to reflect the type of feelings they attribute to themselves and to the other group members.

Proposition 1: (Assumptions 1, 2, & 3) When individuals receive disrupting information from an external source that has positive outcomes about the group, they are likely to generalize and have positive emotion about both themselves personally and the group.

Proposition 2: (Assumptions 1, 2 & 3) When individuals receive disrupting information from an external source that has negative outcomes for the group, they are likely to generalize and have negative emotion about both themselves personally and the group.

Assumption 4: When individuals belong to a group that has positive outcomes, they will tend to feel greater feelings of cohesiveness within the group

Assumption 5: When individuals belong to a group that has negative outcomes, they will tend to feel fewer feelings of cohesiveness within the group.

Proposition 3: (Assumption 1 & 4) When individuals receive information from an external source that has positive outcomes for the group these individuals tend to feel greater feelings of cohesiveness with the group.

Proposition 4: (Assumption 1 & 5) When individuals receive information from an external source that has negative outcomes for the group, these individuals will tend to have fewer feelings of cohesiveness with the group.

Neutral interruptions will provide a comparison for the positive and negative interruptions in that it provides a baseline to determine how polarized the emotional responses may be.

The theory and the subsequent test are constrained by several scope conditions.

These are:

1. The group has no prior history of interaction.
2. The group is task oriented and the task is not connected to any specific area of expertise.
3. Information about positive or negative outcomes at time one does not concern the group task at time two.
4. The source of the information about positive or negatives outcomes is external to the group.
5. Group members have equal states of diffuse status characteristics.

METHODOLOGY

The data set in which this project will be derived is from an experimental study conducted from June 2002 to February 2003 (Sell, et al. 2003). Subjects for this study were recruited from introductory level social science courses at a large public university in the southwest on a voluntary basis. Subjects were asked to fill out forms indicating their interest in participation and contact information. During recruitment all subjects were told that they will be paid in cash as compensation for the time they spent participating in the study. However, they were not told an exact amount of money but instead a range from five to fifteen dollars for about forty-five to sixty minutes. Volunteer sheets were screened to ensure that no one in the subject pool was under the age of eighteen and then again for gender. To control for power and status differences by gender, all female groups were used. At a later date, volunteers that indicated their willingness to participate were called and scheduled to come participate in the study.

The study was a four condition design with three experimental conditions and one control condition using same sex (female) triads. Each condition contained fifteen groups, for a total of one hundred and eighty subjects. Assignment of subject groups to conditions was based on a computer generated random assignment list to help control for random error within the experimental process. After being shown into the room by the researcher, each subject filled out a reimbursement form, informed consent, and then viewed an instruction video with their triad that detailed the task the group was being asked to perform. For each condition, the video is the same. Subjects were asked to solve problems as a group and follow procedures, such as agreeing to proceed in

working on the problems. Subjects were told that they must work together to complete the task before them, creating high levels of interdependency. At the same time they are also told that they need to agree on how the group should proceed before every decision is made. After viewing the video, the researcher reentered the room and answered any questions the subjects had. The group was then given their set of problems, again identical for each group, and given twelve minutes to work on their problem set. The researcher then turned on the video camera, set the timer, and left the group alone in the room to work.

In the control condition, there was no disruption and the group works for a full, uninterrupted twelve minutes. In the three experimental conditions, the group worked and was disrupted after five minutes. The disruption lasted for approximately two minutes and the researcher leave the group in the room to work for the remaining seven minutes. In the first condition, the negative condition, subjects were given a choice of a gift certificate to a local restaurant at the same time they were filling out the reimbursement forms and informed consents in pencil (before their work period begins). At the time at which they are interrupted, the researcher enters the room and informs the subjects that the gift certificates they were given are for another experiment. The researcher, then takes the gift certificates back and goes onto tell the group that they filled out their reimbursement form out wrong, something that most groups do correctly, and they must fill it out again. The second experimental condition, the positive condition, the subjects were disrupted by the researcher and told that they could choose a gift certificate to a local restaurant in addition to the payment they will receive at the end

of the study. They were also told that they filled their reimbursement forms out correctly and that most groups are not able to do this. The third experimental condition, the neutral condition, the group was disrupted by the researcher and asked to fill out an information form about how they were recruited. In order to balance duration of the disruption period for all experimental groups, the researcher told each group in the experimental condition that they (the researcher) needed to retrieve some items off a shelf in the room that is facing away from the subjects. After the experimental condition disruptions, the researcher left the room and the group works along for the remaining seven minutes.

At the end of the twelve minute work period, the researcher reenters the room and informed the group that their time for working is over. They were allowed a few moments to finish recording from the last problem they were working on if they desire. Next the group was separated to separate tables to fill out a questionnaire about the study. The group members were separated to keep a confidential sense to the questionnaire and try to control for subjects changing answers to be more socially desirable to their fellow group members. The subjects then returned to their work area when they were finished. The researcher then told the group how many problems they completed correctly and debriefed them about the experiment appropriate to condition. The researcher also told the group about the other conditions that they could have been a part of. Then any questions or concerns by the subjects were addressed with care by the researcher. Because this study used deception, the research team was especially careful in debriefing the subjects. Without deception this study would not be possible because

the effects of the interruption and goal of the study would be eliminated by prior knowledge. Each subject, regardless of condition, received ten dollars and a five dollar gift certificate to a local restaurant for their compensation. After the entire experimental process was completed the videotapes were then transcribed and coded.¹

The questionnaire created for this study was modeled after that used in the Lawler emotion and commitment research series (Lawler & Yoon 1993; Lawler & Yoon 1996; Lawler & Yoon, 1998, Lawler et al. 2000) studies. The questionnaires in their studies used the same series of bipolar word sets polarized on a ten point continuum. Lawler & Yoon (1996) cite Izard (1991) as the source of these word categories and pairings. The word sets are not grouped by category, but are interspersed among each other to control for subjects developing a response set or common mode of answering the questions. There are three general categories created from these bipolar word pairs from the set of socioemotional questions: pleasure/satisfaction, interest/excitement, and

¹The coding was performed by two independent researchers. The researchers met at the beginning of the transcription and coding process and used pretesting videos to develop a coding schema to be used with the experimental videos. Coding was done by individual subject, labeled left, middle, and right. They coded for who started the rituals they were instructed to perform in the instruction video and if the ritual was complete or otherwise (i.e. agreeing to move on to the next step). They also coded for agreements, disagreements, procedural statements (i.e. putting up problems, reading problem aloud to group, recording answer for group, taking out new problem), directives (i.e. "I think the answer is..." or "Do..."), and socioemotional cues (i.e. giving compliments or putting down group members). All of these variables are compared before and after the interruption, so each group acts like its own baseline. The researchers only contacted each other in situations where there was confusion or disagreement about what the subjects were actually saying. Additionally the amount of time each group member spoke is also being studied. The time of talking is being timed by two researchers working independently from each other. As with the initial coding, these researchers developed a schema for timing in order to increase reliability. They decided laughing, uh and ums that stood alone in the script would not be timed. Similarly when group members talked over each other timing would continue for each individuals talking period. Each researcher used the script from the initial transcription and then watches the video using a stopwatch to determine speaking times. These times are also compared before and after the interruption. Pretesting for this aspect was .95 or higher and timing of the full study is still underway. Additionally, group members are asked about how they feel about one another in the questionnaire and about their feelings in general. The research team also recorded number of clues for each problem used, total number of problems attempted, and total number of problems attempted answered correctly.

group cohesion. The first and second of these categories are of positive affect, while the third is a category of perceived cohesiveness of the group. The pleasure/satisfaction index deals primarily with happy/sad or satisfied/dissatisfied types affect words. Lawler & Yoon (1993) indicate that this pairing is gives a sense of “feeling gratified.” The interest/excitement paring used words that convey levels of interest and arousal or “feeling energized.” For the two proceeding indexes, lower numbers equal higher positive emotion. The final set of word parings, group cohesion deals with feelings of inclusiveness or solidarity. From each set of bipolar word groupings an index will be created. For the pleasure/satisfaction and interest/excitement indexes, lower numbers equal higher positive emotion. The third index, group uses higher numbers indicate more cohesiveness.

For the analysis of the data, I used confirmatory factor analysis and t-tests between the two conditions (positive interruption and negative interruption). The factor analysis was based on the three dependent variables created by the socioemotional index (pleasure/satisfaction, interest/excitement, and group cohesion). The factor analysis indicates if it is appropriate to use the three indices as separate variables. The independent variable is the experimental condition the subject is in (positive, negative, neutral, or control). However our focus is mainly on the positive and negative conditions. I then used t-tests to compare responses to the socioemotional index based on the conditions upon which condition an individual is assigned to. My hypotheses only concerns differences between the positive and negative interruption, but the neutral and control interruption conditions can help gauge whether the positive interruption is more

or less potent than the negative interruption. I have no specific hypothesis about this however.

RESULTS

The confirmatory factor analysis gave a great insight into the bipolar adjective used in the questionnaire. As predicted, there were three general factors into which the bipolar pairs fit. I have labeled these factors as pleasure/satisfaction, interest/excitement, and group cohesion². After running an initial factor analysis, four of the seventeen original word pairings did not load into any of the three predicted factors. I used a loading standard of .3-.4 and rejected loadings for the factor that were at or lower than this standard (Garbin 2004). After removing these pairings from the factor analysis I performed another factor analysis with the thirteen remaining bipolar adjective pairs. Again the analysis confirmed that the pattern of factor loadings were satisfactory with the anticipated three factor design, the adjective variables were collapsed into indices based on their loadings from the factor analysis.

After determining which variables loaded into which factors I created indices from the three factor loadings and one additional index by adding the two emotion indexes for happiness/satisfaction and interest/excitement following the methods of Lawler, et al. (2000). Each of the three factors found in the factor analysis was made into an index by simply adding the scores for each item at the individual level. The positive emotion index was made by adding the scores for the happiness/satisfaction and interest excitement indexes by individual. I then looked at the mean item score of in

² The final factor analysis yielded loadings for thirteen out of the seventeen original bipolar word pairings. Individual loadings for the pleasure/satisfaction factor index are as follows: pleased/displeased .75, happy/sad .73, satisfied/dissatisfied .76, content/discontent .77. Individual loadings for the interest/excitement index are as follows: unenthusiastic/enthusiastic .51, excited/bored .84, energetic/tired .88, motivated/unmotivated .66, interest/excitement .66. The factor loadings for the group cohesion factor index are as follows: conflictual/cooperative .84, fragmenting/integrating .51, fragile/solid .66, self oriented/team oriented .57.

Condition	Happiness/ Satisfaction	Interest/ Excitement	Group Cohesion	Positive Emotion
Control	8.97 (1.29)*	7.53 (1.55)*	8.51 (1.11)*	8.25 (1.21)*
Neutral	8.46 (1.52)*	7.78 (1.47)*	8.45 (1.4)*	8.12 (1.36)*
Positive	8.91(1.32)***	7.9 (1.72)***	8.48 (1.51)***	8.41 (1.31)***
Negative	8.31 (1.32)**	7.38 (1.33)*	8.21 (1.23)*	7.86 (1.19)**
Mean Item Score (Std. Dev.)	* n = 45	** n = 44	*** n = 43	

each index by condition (Table 1). The means of the indexes in the neutral condition do tend fall in between the scores for the positive and negative conditions. In the control condition, the mean scores were higher in both the happiness/satisfaction and group cohesion indices and in between the positive and negative scores on the interest/excitement and positive emotion indices. While I have no specific predictions about the means of the index scores for the neutral and control conditions, I would expect that the neutral condition would tend to fall in between the positive and negative conditions while the control condition may be higher or fall in between the scores. The means for all indices in the positive condition tended to be higher than all but the control condition means as expected. The means for all indices in the negative condition are lower than all other means as expected. The means for all indices in the neutral conditions do indeed fall in between the positive and negative means as expected. The means for the control condition indices tended to be above on some aspects and in between on others which is to be expected. At times when not all indicators of the index

were given by an individual subject, the index for their score was discarded from the mean calculation, meaning that some of the indices have a different n.

The indices were then used to perform a variety of t-tests comparing the mean item score in each indices by positive and negative condition. In addition to the three factor created indices of pleasure/satisfaction, interest/excitement, and group cohesion an additional index was created by combining the scores from both pleasure/satisfaction and interest/excitement into one large index for positive emotion. This concept follows that of Lawler, et al. (2000), where positive emotion was examined on both a global scale and by two general types of positive emotion. Of the indices examined by the one tailed t-tests, both the pleasure/satisfaction index (Table 2), the interest/excitement index (Table 3) and the positive emotion index (Table 4) were significant at the .05 level or better with t-values of 2.15 (significance level .0173), 1.60 (significance level .0562) and 2.05 (significance level .0218) respectively. For both of these indices, those in the negative condition tended to have lower scores on the across the board for pleasure/satisfaction, interest/excitement, and positive emotion.

The group cohesion index (Table 5) was not significant. Despite the statistical tests not being significant the group cohesion scores for those in the negative condition still tended to be lower than those in the positive condition. The theoretical background for this index suggests that there should be a significant difference between groups, however the findings of this study may indicate that there may be an external factor influencing these findings. In earlier analysis of the data, there is discrepancy in the

Table 2. T-Test Pleasure/Satisfaction Index by Condition

Independent Variables	N	Mean	T-Statistic	Probability
Positive	43	8.91	2.15	.0173*
Negative	44	8.31		

*p<.05 (one-tailed test)

Table 3. T-Test Interest/Excitement Index by Condition

Independent Variables	N	Mean	T-Statistic	Probability
Positive	43	7.9	1.60	.0562*
Negative	45	7.38		

*p<.056 (one-tailed test)

Table 4. T-Test Positive Emotion Index by Condition

Independent Variables	N	Mean	T-Statistic	Probability
Positive	43	8.41	2.05	.0218*
Negative	44	7.86		

*p<.05 (one tailed test)

Table 5. T-Test Group Cohesion Index by Condition

Independent Variables	N	Mean	T-Statistic	Probability
Positive	43	8.49	.95	.1736
Negative	45	8.21		

number of agreements between group members by the two groups compared. While the theory leads us to expect groups in the positive condition to have relatively high numbers of agreements when compared to the negative condition groups, the groups in the negative condition tended to similarly high agreement level well. The theoretical background for this aspect of the project would lead us to expect far fewer agreements with the groups in the negative conditions when compared to the groups in the positive condition.

DISCUSSION AND CONCLUSION

The combination of theory from structuralized ritualization, affect theory of social control, attribution theory, and theory of relational cohesion provided a basis for the propositions in this research. Structuralized ritualization brings us the idea that disruption to group routine creates an emotional response for the participants in the group. Disruptions tend to destabilize the rituals of the group and group members must reestablish the group rituals amid their emotional reactions. Affect theory of social exchange provides the idea that emotion, especially that of positive emotion, are influenced by the perceived success of the group. Attribution theory furthers the idea of emotion by discussing how people assign a causal source to an emotional reaction. We know that emotions can be generalized on a variety of levels within the context of the interaction in which the emotion occurred. The theory of relational cohesion brings in the idea of emotion and the effect emotion has on feelings of commitment felt by individuals in a group.

I had initially predicted that those in the positive condition would report higher feelings of cohesion and positive emotion than individuals in the negative condition. The data shows that while groups in the positive condition did tend to have higher means scores for their indices on all categories than those in any other condition. Those in the negative conditions overall had lower scores on their indices when compared to all other conditions. However, the only indices means that had significant differences comparing positive and negative conditions were for pleasure/satisfaction, interest/excitement, and positive emotion. From the data analysis, we can see that at least some of our original

hypotheses are confirmed by the t -tests. We know that there is a tendency in the patterning of scores on the index based on what condition the actor is in. So in general, disruption does tend to have a significant effect on actor's mean reports of emotion. Actors in groups that receive negative information that results in a negative outcome for the group or in other words are involved in a negative disruption tend to have lower levels of positive emotion when compared to individuals in positive disruption groups. Conversely, actors that receive positive information that results in a positive outcome for their group tend to have significantly higher reports of positive emotion than those individuals in negative disruption settings.

Despite our initial conjectures about what would happen to feelings of group cohesion, the findings showed that there were not any significant differences in feelings of group cohesion by condition. Theory would lead us to believe that there should be a significant difference in feelings of group cohesion. Perhaps there is something more going on here, perhaps an interaction within the group context that was not initially examined through this particular analysis. In the coding and transcription of the data, agreements and success of the group were recorded. We would again be guided by additional theory to expect differences in both of these, namely after the disruption occurred. However, the differences were very slight and not significant, coming again as a surprise to the research team. We did, however, notice that there was a difference in the interaction for some of the groups, especially those in the negative disruption condition, after the disruption. The group simply stopped working as a team. Instead, a sort of guerrilla tactic arose where group members began to do nearly all of the work in a

solitary fashion only consulting and agreeing that one of them had found the correct solution to their problem. We feel that this may affect the score reports because the group while no longer really working together as a group, still completed their task and agreed upon doing so which we have stated theoretically should influence feelings of group cohesion. There could be a sense of group cohesion being formed by all groups developing a broad sense of “we are in this together” that is so strong that even a negative event does not serve to greatly decrease the feeling of cohesion overall. Additionally the group may also be attempting to gain a sense of cohesion as a show of strength to the researcher that gave the group the negative information. In this sense, it could be a more unifying act to defy the researcher who has in effect punished the group by continuing to perform the task successfully as a group.

The information from this research contributes to each of the theories it draws on. Attribution theory has never really considered at the effects of disruption on an actor’s emotions. This research indicates that there is a generalized and significant difference in how the context of a disruption might affect the emotions of an actor and consequently carry over to other aspects of the interaction. For the affect theory of social exchange, the context of disruption is added while still looking at both type of disruption and how they effect the generation of positive emotions for the actors involved. Structuralized ritualization theory only talked about potential problems with disruption. This formulation adds both emotion and different types of emotion. The data from this study shows that the theory needs to consider both emotion and type of emotion in the context of the disruption. Despite the lack of statistically significant

findings for our theory of relational cohesion related hypothesis we are posed with an interesting problem to examine in future research that would hopefully add another aspect to the theory beyond what this research can do. By investigating the issues surrounding why those in the negative condition did not feel significantly less cohesive with their group then those in the positive condition may shed additional light into the process of forming group cohesion.

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APPENDIX A

EXPERIMENTAL DIRECTIONS

We have been conducting a large number of studies to examine what kind of factors make groups more or less effective. In particular, we are studying how groups work together to solve different kinds of problems.

Today you are in one of these studies. You and your group will be working on a series of tasks. You will notice on your table that there is a stack of envelopes. Each stack is marked with a Number and then a set of clues. These clues will help you solve the task. We will ask that you follow some very general procedures for the task, but you are welcome to develop other kinds of procedures as well.

You will notice that there is a recording sheet in the middle of your table. For each problem, a member of your group will need to keep the record for the group. For each problem, you will record how many clues you used and the group answer for the question.

What we suggest, is that for each task, the group members work as a group. You should try to develop a way to work on the task that helps your group become most efficient. You are free to work out your own procedures or routines, but we DO ask that you do the following: First, you need to poll the group after each clue to see if anyone has a suggestion for solving the problem or whether the majority of the group believes they should examine another clue. That is, after every clue, the group should reach an agreement or consensus about whether more clues are needed or whether the puzzle or question can be solved.

Second, when someone suggests an answer, the group must reach agreement about whether the answer is the one the group wishes to submit.

Let's go through a very simple example, so you can see how the process would work.

Please open the first package that says Practice Problem. This practice problem begins with the problem. "There are three dogs in a dog show, Mimi, Fifi, and Hank. Determine the order of the dogs in the dog show."

After the group had read the problem. You would probably decide to examine the first clue. Everyone needs to agree.

When everyone agrees, someone in the group would turn over Clue 1. As you can see, Clue 1 says, "Fifi doesn't win". So given this information you know that Fifi is not number 1 but could be either 2 or 3.

Given that you are working in the group, it is probably a good idea to announce what each clue tells you so that everyone knows.. Someone in the group might just say, “Fifi isn’t number 1, but is either 2 or 3.” Of course, if you wish, you may write this down.

At this point, the group doesn’t have enough information to solve the problem. But the group **MUST** be polled to decide whether to go on. So, someone in the group needs to ask if it is ok to examine the next clue. At least 2 out of the 3 of you must agree.

When the group has decided that it is ok to proceed, you would examine the second clue.

You may turn over the second clue, now. You will notice it says, “Mimi came in second.” The group then needs to combine the information from the second clue and the first clue. We know that Fifi is either two or three; we know that Mimi is two. This means that we know Mimi is second, and Fifi is third. This leaves only Hank. Since Hank is not 2 or 3, we know that Hank won the dog show.

You would ask all members in the group if they agree. If they do agree, then someone in the group needs to mark that 2 clues were used for the practice problem. Then in the third column, you would mark the answer: Hank is 1, Mimi is 2 and Fifi is 3.

Notice that there are two more clues for the practice problem. If you turn over clue number 3, you will see this clue: “Fifi is third.” This clue is consistent of course with the other clues, but it is actually redundant information; that is, the other clues give you the same information. However, if the group had used three clues to solve the problem, that would be fine because you had determined the solution. The solution with three clues is not as **EFFICIENT** as the solution with two clues, but the response is still correct.

So, again, your objectives are to work as a group, to consider everyone’s opinions, and to try to solve as many problems as possible with as few clues as possible.

We will be giving you group bonuses for your solutions. These bonuses are given to you at the end of the study when you will find how well your group did on the problems. These bonuses vary from \$1 to \$9 per group.

So, let me summarize the information about the group task:

1. You will be working together as a group.
2. You will be solving problems. The objective is to solve the problems with as few clues as possible.
3. We ask that you work on the basis of group consensus. This means that you should poll group members’ opinion about **EVERY** clue. Further, at least 2 of the 3 group members need to agree about every action—using another clue or guessing the answer.

4. For each problem, you will record how many clues you used and your guess for the problem solution.
5. The group will earn bonus money based upon performance. The bonuses vary from a group amount of \$1 to \$9.

We are just about ready to begin.

In a few minutes the researcher will be in and will answer any questions you might have about the study.

Once again, thank you for your participation.

APPENDIX B

EXPERIMENTAL SCRIPTS

Negative Condition:

I'm so sorry. Remember I told you this was a pretest! I see that I have mixed up the studies that we were conducting. I really apologize for this, but I will have to take away the certificates I just gave you. Gosh I am sorry but these are only for another study. Ok, so, let me see, X you had the certificate for restaurant x. Can you give that back? Y you have the certificate for restaurant y, can you give that back? And Z, you have the certificate for restaurant y too, can you give that back? Also, you filled out the initial information with pencil. This is just wrong. I don't know why you all would do that. We can't have it in pencil because we need a permanent record. So, because of your mistake, you will have to fill it out again. Oh, and I have to gather some things in the closet here for another study that we are doing. Let me see, I need this and this and this. Once again, I'm sorry for the interruption and the mistake. Of course, I will set the clock back to account for the time I interrupted.

Positive Condition:

I'm so sorry. Remember I told you this was a pretest! I see that I have mixed up the studies that we were conducting. I really apologize for this, but I will have to interrupt. In addition to the payment we told you that you receive, we are also giving you these certificates for local restaurants. You get to pick which certificate you would like. Your choices are x and y and z. I will need to copy down the information, just to make sure we keep track of the certificates. Let's see, X, which would you like? (write down) Y, which would you like? (write down) and Z, which would you like? (write down). Oh, I want to tell you that we needed this information form filled out in pen. You'all filled out the forms perfectly. I really appreciate you doing that because we have to have a permanent record. Some people don't listen and we have to do it all over, but you all did a great job. Oh, and I have to gather some things in the closet here for another study that we are doing. Let me see, I need this and this and this. Once again, I'm sorry for the interruption and the mistake. Of course, I will set the clock back to account for the time I interrupted.

Neutral Condition:

I'm so sorry. Remember I told you this was a pretest! I have to get some things out of the closet here for another study that we are conducting at the same time. Also, I forgot to have get some information from each of you. I will pass out these sheets that ask for your name, how you were recruited, some general information about your background. Please fill these out using these pens. I will collect them when you are done. Once again, I'm sorry for the interruption and the mistake. Of course, I will set the clock back to account for the time I interrupted.

APPENDIX C
QUESTIONNAIRE

Date _____

_____ **YOUR** first name

_____ second group member's first name

_____ third group member's first name

We often conduct several studies at the same time. Please answer the questions below that concern the study in **WHICH YOU JUST PARTICIPATED**.

Did you previously know the people in your group?

No []
Yes []

--if yes, please explain how you know them.

Were you awarded any restaurant coupons in your study?

No []
Yes []

Please circle the response that best expresses your opinion for each question below.

How successful do you feel your group was in the task today?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

extremely
unsuccessful

extremely
successful

How cooperative do you feel your group was in the task today?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

extremely uncooperative

extremely cooperative

How competent do you feel YOU were in today's task?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

extremely Incompetent

extremely competent

How competent do you feel the SECOND group member was (_____) in today's task

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

extremely incompetent

extremely competent

How competent do you feel the THIRD group members was (_____) in today's task?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

extremely incompetent

extremely competent

If there was an opportunity to work on more group tasks, how much would you like to work with the same group members that you worked with today?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

I would NOT like to work with the same members

I would like to work with the same members

Please circle the number below that best represents your **feeling** about the task interaction that you just completed.

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 pleased displeased

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 happy unhappy

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 satisfied not satisfied

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 contented discontented

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 joyful not joyful

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 unenthusiastic enthusiastic

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 excited bored

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 energetic tired

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 motivated unmotivated

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 interested not interested

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 distant close

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 conflictual cooperative

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
 fragmenting integrating

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
fragile solid

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
divisive cohesive

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
diverging converging

1-----2-----3-----4-----5-----6-----7-----8-----9-----10
self oriented team oriented

Because this is a pretest, feel free to make any comments or raise any questions about the below.

The researcher who conducted the study. _____

The setting or physical arrangements _____

The clarity of instructions _____

THANK YOU!

VITA

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PAPERS

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