

VARIANCE IN INTERACTION BETWEEN SELECTED
YOUTH AND ADULT GROUPS; UTILIZATION OF THE
BARNLUND-HALLMAN MODIFICATION OF THE BALES
INTERACTION PROCESS ANALYSIS FORM

by

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PREFACE

Process is one point of view from which to examine the relationship of the elements in social interaction. When the research focus is on process, researchers analyze the act-by-act sequences of events as they unfold over time. Likewise, this study records and analyzes sequences of acts in its examination of whether or not differences in communicative interaction behavior exist between groups of different age, education, and social-emotional level representing different environments.

The format of this study has been organized by the researcher with the help and approval of his major professor. The explanation of the analytical method and the review of the literature is covered briefly to give the reader an indication of the manner in which the method works as well as its versatility in research. The remainder of the study is discussed in more detail as it explains the purpose of the study, describes the research procedure and group backgrounds, and the results, respectively.

The researcher is greatly indebted to the efforts of many people who helped make this study possible. Dr. Terry Keeley and his research staff at Larned State Hospital made available to this researcher the necessary facilities and helpful support for which grateful acknowledgment is made here. Also, thanks go to the various administrators and teachers in the Manhattan Unified School District who gave permission for Manhattan students to be included in the study. Thanks also go to the students--junior high, senior high, and college-- and the adolescent

patients at Larned State Hospital who voluntarily participated in the research. The efforts of Dr. Ted Barnes in providing preliminary guidance are greatly appreciated. Finally, the researcher is most indebted to two people: Peg, his wife, who provided a strong source of stimulation and encouragement, and Dr. William Burke, his major professor, who devoted a large amount of assistance, time, effort, and guidance to encourage the completion of this project.

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Chapter I

The Interaction Process Analysis (I.P.A.) developed by Robert F. Bales is basically a tool used to analyze and diagnose the behavioral problems of small, human, social groups through a study of their communicative behavior. To analyze problem-solving sequences in groups, Bales formulated a system of categories for use in observing and recording interaction behavior.¹ For the sake of clarity, however, the twelve categories will not be discussed here, but rather the major relations that exist among the categories will be presented.

Bales stated, in his original form, that there were four types of general interactions communicated by individuals. These included positive reactions, attempted answers, questions, and negative reactions.² Basically, these general communication categories would include several types of more specific interactions, thus further defining the categories and making it easier for the observer to record. Furthermore, from the twelve categories, Bales also identified three areas: social-emotional area (positive), task area (neutral), and social-emotional (negative).³ Using these areas, the experimenter could analyze

¹ Robert F. Bales, INTERACTION PROCESS ANALYSIS: A Method for the Study of Small Groups (Massachusetts, 1951), p. III.

² Ibid. p. 9.

³ Ibid. p. 9.

group interaction behavior from a viewpoint of how well the group progressed in solving its assigned problem (Appendix I).

Since its development by Bales, the I.P.A. form has been modified and expanded to provide further clarity in analyzing small group interaction behavior. Therefore, to insure clearer results in this study, results collected from the utilization of the Barnlund-Haiman Modification (B-H Form) of the Bales I.P.A. were incorporated (Appendix II).

The B-H Form contains 14 categories instead of the original 12 formulated by Bales. Furthermore, the 14 categories constitute the same types of interactions as the original 12, but spread them out to provide a wider range for analysis. This expansion creates two additional general interaction categories--one concerned with interactions aimed at aiding group efficiency and one directed at interactions wanting group efficiency.⁴ In turn, these additional two categories give rise to a procedural area aimed at analyzing procedural oriented interactions along with the original two social-emotional and task areas. Thus, the modified form developed by Barnlund and Haiman provided additional areas for analysis, resulting in a more complete picture of communicative behavior when analyzing small groups.

The B-H Form operates in the same manner as the original Bales' Form, in that, in its raw form, it provides an interaction profile for the recording and tabulation of the interactions of a given subject or set of subjects. Basically an interaction profile is a frequency count of the number of scores

⁴ Dean C. Barnlund and Franklyn S. Haiman, The Dynamics of Discussion (Boston, 1960), pp. 399-400.

that a given observer has entered in each category of the total set used for observation. In this study, therefore, the set used included the six areas denoting general types of interactions made by participants.

Because scoring proceeds continuously throughout the course of the interaction observed, the raw number of scores obtained depended heavily upon the length of time. If chronological time has been measured, rates per unit of time for individual categories or for the total may be computed. Therefore, total interaction rate on a base of chronological occurrence is a meaningful measure. However, actual time rates are seldom recorded; consequently, for comparisons across groups one must rely on rates that are computed as percentages in each category of the total number of scores for all categories.⁵ This method is employed in computing the data of this study. Furthermore, the comparisons made in this study are based on a percentage basis.

There is a variety of ways by which an interaction profile may be tabulated. Purposes of a study dictate, for example, whether a reference population to which to compare the profile of a single individual be used, or whether a profile to compare groups from similar or differing conditions should be used. Furthermore, an investigator might want to compare groups representing different environments. For example a comparison of interaction behavior of a group of institutionalized mental

⁵ Robert F. Bales and A. Paul Hare, "Diagnostic Use of the Interaction Profile," The Journal of Social Psychology, No. 67 (1965), p. 239.

patients to the interaction behavior of youth and adult groups functioning outside an institutionalized environment might be made.

For many years authorities in the field of communication have written about the relationship between speech and personality. Such relationships are related in the following quotations:

Speech or oral communication is a basic tool by which an individual relates to others around him⁶

Speech and personality grow, develop, differentiate, and become refined together. Speech is a phase of personality. . .⁷

Speech is intuitively interpreted by normal human beings as an index of personality expression. . .⁸

These quotations seem to indicate that oral communication is basic to one's development in society. Besides acting as a medium for transmitting ideas, oral discourse is notably a phase of one's personality. However, along with its importance to one's development, language also ranks as an important means of accomplishing interpersonal interaction, especially in a small group environment.

The communicative event is a social act through which a person extends himself to another. Furthermore, it is the principal medium through which human relationships are tested and become established. Many researchers have attempted to achieve a deeper understanding of the central elements affecting success

⁶ Ferullo, "Self Concept in Communication," Journal of Communication, XIII, No. 2 (August, 1965), p. 77.

⁷ Ibid., p. 77.

⁸ Ibid., p. 77.

in building communicative relationships in hopes of increasing their understanding of various aspects of group dynamics.

Hugh Duncan, in Communication and Social Order, stresses that "social sciences must return the study of man in society to a study of communication, for how we communicate determines how we relate as human beings."⁹ Thus, Duncan says that even though communication is named as the medium of social interaction, the medium itself (the forms of expression we use in communication) is not studied. Furthermore, the discovery of a sociological model of communication would permit examinations of the social function of language as symbolic enactments which affect social organization.

Duncan feels that the basic problem for human scientists interested in social communication is the explanation of emotion as communication, for the manner in which motives are communicated determines our emotional state in face to face interactions. Thus, in studying small group interaction behavior, Bales conceived a form of "mechanical equilibrium" which recorded social facts as mechanical facts.¹⁰

The study of small groups has held a position of high esteem in social science research since the turn of the 20th Century. In the study of small groups the events of interest to the researcher occur in a limited range of space and time. Furthermore, such groups present the same advantage for the participant that they do for the observer because the groups are small

⁹ Hugh D. Duncan, Communication and Social Order (New York, 1962), p. 438.

¹⁰ Ibid., p. 12.

enough that the individual members can easily accomplish relationships with other members through direct interaction.

It is rather common understanding now that the study of small groups is a method for the study of social systems, of culture and of personality, as "its strategic significance in the development of social science generally is that it relates all three of these types of structures to a common base--the social process out of which they arise and through which they change."¹¹ The three aspects of small group research have been the subject of intense investigation by social scientists for some time. However, the concern of this report is the utilization of a method for small group analysis developed during the late 1940's by Robert F. Bales, a sociologist. This analytical tool, fittingly called the Interaction Process Analysis, has been used by experimenters in analyzing a vast range of situations. To demonstrate the versatility of the Bales method several studies have been cited that represent not only various age groups, but also groups under the influence of drugs as well as groups with various emotional disorders.

Robert F. Bales, in a case-discussion problem study, involved groups of students hired through an employment office. The participants, without knowledge of one another's names and without an appointed leader, were placed in an observation room containing two-way mirrors and microphones. The task of each

¹¹ A. Paul Hare, Edgar F. Borgatta and Robert F. Bales (eds.), SMALL GROUPS: Studies in Social Interaction (New York, 1961), pp. v-vi.

session was the discussion of a human-relations case, a five-page presentation of facts about a problem facing an administrator in his organization. Each participant was given the case to study prior to the session, but was uninformed by the experimenter as to whether each had the same range of facts. After reading the case, each participant was required to return his copy to the experimenter to insure that none of the typed copies could be compared during the session. However, the members were allowed to take notes while examining the case. The task for each session was to assemble the information, to discuss why the people involved in the case behaved as they did, and to decide what should be recommended as action for the solution to the problem presented. The group members were asked to limit themselves to 40 minutes and to verbalize the group solution for the sound record in the final one or two minutes of the meeting. After this, the experimenter left the room. The group was not arbitrarily stopped at the 40 minute limit, but was allowed to take a little longer if necessary.

Inspection of the summary profile of many such groups revealed that in spite of the care taken in the experimental situation to highlight the desirability of communicating factual information, the rates of asking for information and giving it were both below the suggested cutting point. However, the rate of giving opinion was above the suggested limit, indicating that there were many inferences and value judgments communicated within the groups. Rates of showing both agreement and disagreement were also high. (By "high" and "low" the investigators meant

above or below the suggested arbitrary cutting point one standard deviation from the mean established by applying a statistical transformation which normalized the percentage distribution. The high rates of showing agreement and disagreement were plausibly related to the presumed status equality of the members and to the requirement for a concrete and specific group decision. Under these conditions, most problem-solving attempts by a given member tended to provoke a reaction from some other member, whether negative or positive.¹²

Another study using Bales' I.P.A. was Hare's "Boy Leaders."¹³ Twelve third-grade boys, identified by their teachers as leaders on the school playground, were observed at play with their friends in the home neighborhoods after school. Six of the boys were selected because they were group oriented; the other six, because they were self-oriented. Two observers scored interactions in the field. Each observer scored only one boy at a time, recorded all of his acts directed to others and all acts directed to him by other group members. When possible, since the group was divided between two observers, each observer made half of the observations on each subject.

The average observation period on the neighborhood playgrounds was four sessions for a total of 75 minutes which included 218 observed acts. Interaction with parents or observers was not recorded; only the interaction with other children was included in the profiles. Nonverbal interaction required in

¹² Bales and Hare (Jour. of Soc. Psych.), pp. 243-244.

¹³ Ibid., pp. 254-255.

observing the rules of the game was omitted.

For the children, the profile showed that agreement and giving opinion were low; whereas asking for information was high. The tendencies here were just the opposite of those recorded in Bales' problem-solving group. Rather than deliberate and attempt to reach consensus on issues, the boy leaders and their followers interacted directly, with high rates of suggestion giving and antagonistic manifestations.¹⁴

Another study, Lennard et al. "Subjects Under the Influence of Lysergic Acid," involved four college graduates--three females and one male who were diagnosed as nonpsychotic on the basis of psychiatric interviews and a battery of clinical psychological tests. The subjects were paid to participate in a discussion of "The place of women in society." The discussion was recorded, transcribed, and scored from the typescript. All the subjects participated while under the influence of lysergic acid, two received 50 micrograms of LSD 25 before the session; the other two received 100 micrograms of LSD 25 prior to the session.

In comparing the interaction profile of this group under the influence of LSD with the same group in normal conditions, the researcher noted that verbal output when under LSD was restricted and that there was a marked reduction in negative interpersonal responses, whereas the rates of giving and asking for opinion were high. This study attributed, when the groups were compared, the increased attempts of the members to restore cognitive clarity despite their felt impairment as a result of

¹⁴ Ibid., pp. 254-255.

dosages of LSD. Furthermore, the groups did not have high rates of solidarity and manifestations of tension release.¹⁵

The final study under consideration was done by Roberts and Strodbeck, using two groups of five male patients. One group consisted of diagnosed paranoid schizophrenics and the other a group of depressed patients. While attempting to reach a group decision under the leadership of a psychiatrist, the non-verbal interactions of each patient were recorded by trained observers. Later, when the tape recording of each session was transcribed, the observers' notes were added to produce a final document. The interaction-process scoring was then done from the transcribed protocols by persons who observed the sessions and who were trained in the use of the Bales' technique.

In comparing the resulting group profiles with those of other groups the researchers found that two categories of acts differed from the average. Manifestation of antagonism was high, primarily this was regarded as a reflection of the generally "hostile" characteristics of the paranoid-schizophrenic patients. The high rate of tension manifestation reflected the high-tension level of both types of patients.¹⁶

The studies just cited represent a few experiments done with the use of Bales' communication instrument; other groups ranging from high school counselors to policy-making committees have also been analyzed by the use of this instrument to observe their interaction behavior. Thus, it appears that this instrument

¹⁵ Ibid., p. 248.

¹⁶ Ibid., p. 250.

has made useful contribution to social science research.

Although studies using the original I.P.A. form (or a modification thereof) have been made in which two or more groups' interaction behavior have been compared, the survey of literature undertaken by this researcher revealed no studies comparing the communicative behavior of a group of adolescent mental patients who were physically institutionalized to the interaction behavior of groups who were not physically institutionalized. Therefore, since no studies of this particular nature appeared to have been performed and because the area of group dynamics was of interest to this student, it was decided that such a study might prove worthwhile. The concern of this study, therefore, was the investigation of this specific question: How do groups, differing in age, education, and social-emotional levels, representing two different environments vary in interaction behavior when subjected to analysis by use of the Barnlund-Hainan Modification of the Bales Interaction Process Analysis Form?

First, it was important to define certain terminology that was to be referred to throughout the study. The definitions for this study were designed to act as minimal guidelines in constructing operational boundaries within which the research was carried out.

The minimal suggested boundaries for the following words were as follows:

Age: The chronological condition of an individual measured in calendar years.

Education: The highest level (i.e., grade) of schooling completed by an individual.

Social-Emotional Adjustment: The proportion of positive and/or negative interactions as measured by the B-H Form.

Institutional Environment: An environment for emotional disorders to which one is confined for relatively long periods of time, for therapeutic treatment.

Normal Environment: Any environment where one is not physically institutionalized for the purpose of therapeutic treatment.

It was felt that the selection of independent variables for this study included a consideration of variables which separately or in combination would, at different levels, influence the interaction behavior of the groups. Therefore, in selecting the variables of age, education, and social-emotional adjustment, the researcher felt that the interaction behavior of the groups would differ if all or any of the variables differed between groups being compared.

Many social scientists have pointed to the increased and increasing importance of small group membership in our society. Furthermore, these scientists stress the importance of insight in this area to the well-being of the individual and the preservation of society.

It is commonly accepted that as an individual advances in age and education he becomes more aware of his functions and associations with groups. Furthermore, by late adolescence an individual becomes more and more group oriented because of social group participation. Thus, it would seem that as an individual develops socially and educationally he gradually becomes more capable of interacting within a group. Therefore, the variation, between groups, of the independent variables of

education and age levels should indicate degrees of interaction behavior.

Furthermore, as was pointed out in the Roberts and Strodtbeck study, the interaction behavior is dependent on the social and emotional condition of the group. As these researchers noticed, the interaction behavior of such groups differed when compared to normal groups in that they illustrated a high rate of antagonism and tension. Therefore, it was noticeable in that study, when measured by the Bales categories, that participants with defined emotional disorders differed in their interaction behavior from participants not having any defined emotional problems. Thus this investigator felt that the higher the social-emotional level of a group, as measured by the social-emotional areas of the B-H Form, the fewer problems they should experience in interaction behavior in a problem-solving situation.

Therefore, with the three chosen variables in mind, it was assumed that interaction behavior between groups would differ if all or any of the variables differed between the groups. In a descriptive comparison between the four chosen groups in this study, general hypotheses were formulated that would possibly reflect conditions which might result when the variables were compared and the data analyzed. Therefore, the following hypotheses were used when the study began.

Hypothesis₁: Compared groups of similar age and educational levels but varying social-emotional levels will display differences in general interaction behavior when measured by the Barlund-Haiman Modification of the Bales Interaction Process Analysis Form.

Hypothesis₂: Compared groups with differing age, educational, and social-emotional levels show more variation in interaction behavior when measured by the Barnlund-Halman Modification Form.

Thus, with the definitions and hypotheses in mind, the problem investigated in this study was the comparison of interaction behavior between groups representing two different environments when using the B-H Form as the comparison instrument.

This study was concerned with three youth groups and one early adult group, with one youth group representing the institutional environment and the other three groups representing the normal environment. The group from the institutional environment, Larned State Hospital, consisted of five adolescent mental patients who were physically institutionalized as a result of their diagnosed emotional disorders. The other three groups represented the normal environment and their interaction behavior was compared to the interaction behavior of the institutionalized group as analyzed by use of the B-H Form. The latter three groups consisted of two youth groups composed of five students from Manhattan Junior High School, and five students from the Manhattan Senior High School. The early adult group was represented by five college students presently classified as juniors or above from Kansas State University in Manhattan, Kansas. All of the participants were selected at random from volunteers, and the groups were coded as follows:

Group A: institutionalized group

Group B: junior high group

Group C: senior high group

Group D: college students.

Chapter II

Four groups of five members each acted as committees to examine the evidence presented in the case of "The Live Dead" (Appendix III), in order to determine by majority group opinion which character(s) was responsible for the death of Al Gonzer. As mentioned previously, the participants were selected from available patient populations and student classes of differing adolescent and young adult age and educational levels. The participants were given the problem-solving case study on the day the data were collected and were asked to read and examine the case before the discussion session. Furthermore, they were asked not to discuss the case with anyone before the group session. Finally, the participants were allowed to make any written comments concerning their reactions to the problem while studying it in order that they could present them before the group during the discussion period.

Prior to the session, each participant was given a form to complete concerning his background (Appendix IV). The form was primarily concerned with participant age and educational level, and in the case of Group A, a short description of the individual's emotional disorder written by a supervising psychiatrist was included (Appendix V). Furthermore, the participants were informed that they would be observed through a two-way mirror and their interactions recorded throughout the session. This information was related to the groups, as several Group A

members had participated in therapy sessions in the observation room that we used at the hospital.

The participants were directed to choose a seat within the five chair semi-circle in the observation room. Then the observer left to turn on the tape recorder in the adjacent room. Thus, the tape recorder was turned on prior to the actual discussion to record anything that was said before and during the session.

After engaging the recorder, the observer returned to the group to re-emphasize that they were not acting as a judicial body, but rather as a committee to review the evidence present in the problem copy. The participants were allowed to retain their copies during the discussion period for reference. Furthermore, they were reminded that their concern was one of examining the provided evidence to determine, by majority opinion, who they thought was responsible for the death. To further clarify the primary duty of the group, they were given specific instructions to decide whether Charles Bain was responsible for Al's death, and if so, why. If they decided that Charles was not responsible, they were told that they were to decide who was responsible and why. These instructions were presented to the groups to make the problem somewhat more difficult to solve and to stimulate more interaction.

After the group was oriented, a volunteer member was selected to call for the majority opinion at the end of a designated 40 minute time period. After this, the group members were instructed to give their first name, age, and whatever else

they wanted to say before starting the actual discussion in order that the observer would have time to return to the observation area to begin recording the interactions.

During the session, the group interactions were recorded using the Barnlund-Haiman Modification of the Bales' I.P.A. Form (Appendix II). Furthermore, the sessions, as mentioned previously, were tape-recorded to insure maximum rater reliability.

Finally, the groups, consisting of five members each, experienced less difficulty in arriving at a majority opinion as the uneven number allowed for no equal separation of conflicting opinions. Furthermore, this number was selected as the groups members were close enough for face-to-face interactions. Finally, the group size provided more convenience for scoring the interaction behavior.

After the interactions of the four groups were tentatively recorded (a procedure that involved rechecking the data by listening to the taped discussion for a minimum of five times), the scores were computed in percentage form in each category for all the categories. Furthermore, the total number of interactions among all the groups were added together along with the six category totals, and a composite percentage form was formulated and diagramed (Appendix VII). This last set of percentages was used in comparing the group interactions because they made it possible to make observations concerning the combined performance of the four groups.

The final group percentages were recorded on a reference

population of interaction profiles to insure further clarity and ease in making the group comparisons (Appendix VIII). The reference population of interaction profiles consisted of final percentages computed for each of the six general interaction categories used for recording the group interactions.

The development of youth has been the object of scientific controversy for several decades. Out of the arguments have evolved several general descriptions of development among youth. Therefore, for the purposes of this study, the general descriptions of youth development were used in formulating the previously discussed hypotheses. However, since this portion of the study was concerned with the description of group backgrounds, the general categories of development were included in this section. Furthermore, since this study was concerned with youth groups and an early adult group, only those categories describing the development of the individual between the ages of 12 to 18 and 18 to 35 years were used.

Adolescence: Developing self-confidence and a clear sense of identity. Accepting one's physique and adjusting to body changes. Achieving a masculine or feminine social role. Developing new, mature relations with age mates. Achieving emotional independence from parents and other adults. Developing concern beyond oneself; achieving mature values and social responsibility. Selecting and preparing for an occupation. Preparing for marriage and family life. Learning to make choices and take responsibility. Building a conscious value system in harmony with an adequate world picture.

Early Adulthood: Completing formal education. Getting started in an occupation. Selecting and learning to live with a mate. Starting a family and providing for the material and psychological

need of one's children. Finding a congenial social group. Taking on civic responsibility. Developing a satisfying philosophy of life.¹

In discussing the group backgrounds, the previous general descriptions were incorporated to make the discussion clearer and to provide a common ground for the separate descriptions. In discussing backgrounds, the groups were considered separately with Group A discussed first. Then the three groups representing the normal environment were discussed with Group B first, Group C second, and finally Group D.

Group A, the adolescent mental patients, had an average age of 16 years and an average educational level of nine completed years of formal education (Appendix IX). Though this description presented a general picture of the group, it failed to give indication of the patients' disorders. Therefore, to present a more understandable sketch of the group's background, the diagnosed disorders of the individual participants were examined. The following information was taken from the description provided by the supervising psychiatrist.² Each participant disorder was discussed and identified by his assigned participant number within the group (participant Number 1, 2, 3, 4, or 5).

Participant Number 1 was a 16-year-old male who had completed the eighth grade and had been institutionalized since November, 1966. His disorder was diagnosed as a problem of

¹ James C. Coleman, Abnormal Psychology and Modern Life, 3rd ed. (Glenview, Ill., 1964), p. 64.

² For professional reasons the supervising psychiatrist preferred to remain anonymous. Therefore the following patient information will be documented by appendix number only.

"adjustment reaction of adolescence with severe pathology."³

The severity of the disorder was illustrated in the psychiatrist's account of his behavioral activities prior to hospitalization by countless examples of rejecting authority and behavioral problems. Number 1 had been participating in group therapy sessions since October of 1967. Furthermore, it was noticed by the supervising personnel that Number 1 did not seem to benefit from experience, threats, and acts of kindness.⁴

Participant Number 2 was a female seventeen years old who had completed nine years of formal education. She had been institutionalized since July of 1967 and was diagnosed as being "psychoneurotic with conversion reactions."⁵ Her disorder was severe enough to result in two serious attempts at suicide. Furthermore, she had participated in group therapy sessions since October, 1967.

The severity of the disorder was illustrated in the psychiatrist's account of behavioral activities prior to hospitalization by her long periods of general depression (psychoneurosis) and an example of hysterical reaction during which she attempted suicide (conversion reaction). In her ward activities it was said that she was always seeking reassurance for her actions.⁶

The third group member was a female sixteen years old who had completed nine years of school. She was admitted to the

³ Information obtained from the completed Appendix V; Participant Information Form.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

hospital in July of 1967, and began attending group therapy sessions in October of the same year. Her diagnosis was stated as "adjustment situational reaction of adolescence with depressive features."⁷ Her case was quite severe as she had made several suicidal gestures and had experienced several episodes of very severe depression. Furthermore, the psychiatrist's description of behavior stated that she rejected physical change in her body as well as authority. Finally, she was described as being a follower and not a leader in ward activities.⁸

The next participant (Number 4) was a seventeen-year-old male who completed ten years of education before being hospitalized in October of 1967. His diagnosis stated that his disorder was one of "adjustment reaction of adolescence with antisocial behavior."⁹ The severity of his disorder was one of "moderate pathology. . . as antisocial behaviors do not seem to be deeply rooted in neurotic or psychotic bases. Mostly reactionary?"¹⁰ Besides indicating the adjustment problem from childhood to adolescence, the psychiatrist's report indicated various delinquent acts and rejection of authority as examples of his antisocial behavior. Number 4 had participated in group therapy sessions since December of 1967.

The final participant under consideration from this group was a male diagnosed as having an "adjustment reaction of ado-

7 Ibid.

8 Ibid.

9 Ibid.

10 Ibid.

lescence. . . with relatively mild pathology away from home but much pathology in the home situation."¹¹ Patient Number 5, who was age 15, completed his eighth year of education and was hospitalized during October of 1967. Since admission, he had been participating in group therapy sessions since December of 1967, but only to a small degree. The psychiatrist's report indicated examples of threats on his parents' lives and disrespect for authority as reflections of his disorder. Furthermore, the participant was described as being able to socialize well in ward activities.¹²

It was interesting to note that the only requirement for Group A volunteers was that whoever volunteered had to be able to read. This requirement was made, as a relatively large percent of the patients (thought the psychiatrist) could not read well enough to fully understand the written problem.

The background of the three groups representing the normal environment were considered only in general, as case studies concerning participant emotional stability either did not exist or were unavailable for research. However, since the members of these three groups functioned in a normal environment, it was assumed that their social and emotional levels were relatively stable.

Group B participants were selected from volunteers of a ninth grade speech class. A cross section of all the junior high grades was not obtained as the administration felt it

¹¹ Appendix V.

¹² Ibid.

easier to keep attendance records if all the participants were selected from one class. Therefore, it was decided to select ninth grade students as they would represent a group that had completed eight years of education, or their second year of junior high school. Finally, the average age of this group was 14 years (Appendix IX).

Group C represented an average educational level of ten grades completed and an average age level of 15 years. These participants were selected from senior high school speech class volunteers.

The final group representing the normal environment was Group D. Because they were selected from an upper level communications class, these students were classified as juniors or higher. This group represented the highest average levels of age and education, with an age level of 24 years and an average of 15 years of education completed (Appendix IX).

An apparent bias for speech classes was noticed after the normal environment groups were selected. However, this was not because the researcher was a speech student, but rather the personnel teaching the selected classes were acquaintances of the researcher and offered their co-operation in providing volunteers.

Chapter III

The original hypotheses stated that the adolescent groups would be equal in average age and educational levels. However, when the data were collected from the information sheets (Appendix IV and Appendix V) the average age and educational levels differed from what was stated in the original hypothesis₁. Therefore, it was decided to formulate a more adequate hypothesis that would take the new data into account.

In postulating an adequate hypothesis that could be tested in light of the gathered data, the notion was formulated that equal age, education, and social-emotional levels between compared groups should produce no significant differences in interaction behavior. However, when these variables varied, differences in interaction behavior should exist. Therefore, with this notion in mind, the following hypothesis was formulated.

Hypothesis: Significant differences in interaction behavior, when analyzed by the Baralund-Haiman Form, exist between groups that vary in age, education, and social-emotional levels with different environmental backgrounds.

Thus, since this study was concerned with measuring and indicating whether differences existed in interaction behavior the above hypothesis was designed to be answered by a "yes" or "no" statement. Furthermore, the differences in average age and educational levels (Appendix IX) were so varied that suitable hypotheses incorporating them would have been difficult to postulate. Thus, the present hypothesis was designed to present

a clearer picture in measuring whether differences in symbolic communicative behavior between compared groups existed or not. Finally, with the knowledge that the groups differed in age and educational levels, the differences in social-emotional levels were illustrated in the explanation of how the groups differed in the categories of negative reactions and positive reactions.

The procedure utilized in making reliable comparisons of group interactions was the division of the percentage of interactions in each general act category of the normal groups into the separate interaction category of the institutionalized group. (Appendix VIII). Thus the differences were arrived at by dividing the smaller percentage into the larger and subtracting 1.00 from the derived quotient. This method reduced the margin of error as comparisons under .50 variation were not considered dependable enough for reliable comparison. On the other hand, only those differences .50 or more were considered reliable enough for comparison. It was assumed that these differences would remain consistent if the results were tested by other investigators. Furthermore, the differences of .50 and less would be more vulnerable to change under re-testing conditions. Therefore, these results should undergo carefully controlled experimental research to test their reliability.

In indicating differences in interaction behavior, the groups were compared on the basis of one general category at a time, starting with the positive reactions and ending with the negative reactions. Finally, the total group interactions for all the groups were compared. Group A's percentages were used

as a basis for comparison. (The percentages that vary .50 or more are circled in Appendix VIII.)

The positive reactions category showed a marked difference in the symbolic behavior of Group C of the normal environment but not Groups B and D. This difference was indicated by Group C's lower degree of expression of support and agreement (when compared to Group A) while discussing the common problem. It was also noted that Group A ranked a close second in this category, illustrating a consistent or higher degree of positive social-emotional reactions when compared to the other groups.

Group A had the highest degree of information presentation, whereas Group D was the only group differing significantly. Group A members presented many short bits of information, partially because of the high frequency of interruption by other members. On the other hand, Group D members seemed rather "long-winded" as they would normally speak for long periods of time without interruption from other members. It could be that either the group members were more courteous, that what the members said closely applied to the solution, or that what was said was interesting enough to merit continuation.

Group B's interactions aimed at helping group efficiency contrasted significantly by 31% when compared to Group A. This high degree was an end product of Group B members continually attempting to define and clarify interactions made by each other. Furthermore, the session was characterized by the members trying to solve the problem not as individuals, but as a group. Therefore, this group displayed a high rate of solidarity. On

the other hand, Groups C and D varied very little from Group A in this category.

In the category of wants groups efficiency, Group B again illustrated the only significant difference when compared to Group A. Group B's large degree of contributions in this category resulted again from their attempts to solve the problem as a group, as there was a high frequency of interactions asking for personal and/or group guidance, information aimed at clarifying the problem, and procedural help to aid finding an agreeable solution. Furthermore, many of the interactions in this category influenced behavior aimed at helping group efficiency, as many of the resulting reactions were aimed at offering clarification of the problem. Thus, the two categories of helps group efficiency and wants group efficiency demonstrated a higher degree of procedural emphasis in Group B than Group A. Finally, no relative change resulted when Groups C and D were compared to Group A.

Although Group A had a higher frequency of requests for information than did Group C and D (though not significant enough for comparison), Group B ranked significantly above Group A. Group B's interactions in this category related rather closely to their relatively high rate of information presentation (though not significant enough for comparison). Throughout their session there was a high frequency of interactions aimed at obtaining personal and/or group opinions and information concerning the problem. Furthermore, it was observed that there was a relatively high frequency of requests by members for reasons behind various

occurrences in the problem situation.

The highest degree of differences in the study resulted when Group A's negative reactions were compared to Group B's and Group D's. Group A had a 32% higher rate than Group B, and a 33% higher rate than Group D. Displaying a high rate of positive reactions when compared to the other groups, Group A reversed its tendencies in the category of negative reactions. It was observed that, during their session, the members displayed an extremely high degree of tension, resulting in many disagreements, arguments, and signs of antagonism. These reactions were directed at various aspects of the problem as well as toward each other. On the other hand, Group B members consistently attempted to reduce tension to maintain a pleasant atmosphere. Their success was indicated somewhat by the low frequency of negative reactions. Finally, Group D displayed the lowest frequency of negative reactions of all groups. It appeared that this group did not have to strive at maintaining a highly efficient atmosphere as most interactions were task oriented and were generally accepted by the group. Furthermore, very little personal opinion was presented without some degree of rational support. Finally, it was noted that the highest degree of negative reactions was contributed by Group C. However, the difference was not great enough to merit a comparison to Group A.

The final comparison made in the study was between the differences in percentage of total interactions contributed by the individual groups. The only significant difference to Group A's total interactions was the percent of Group D's total

interactions. In re-examining the recording made of the sessions, it was found that one obvious reason for this difference was that Group D's members were consistently "long-winded," whereas Group A's participants were frequently interrupted, thus minimizing "long-windedness."

In testing the hypothesis--Significant differences in interaction behavior, when analyzed by the Barnlund-Haiman Form, exist between groups that vary in age, education, and social-emotional levels with different environmental backgrounds--it was discovered that significant differences occurred in seven of the 18 general interaction category comparisons. Thus, the hypothesis was proven true in 39% of the cases as the differences were not significant enough to claim consistency in the other instances. Therefore, in general, it could be said that differences in interaction behavior did exist in all cases but only a minority of the differences were significant enough to merit description.

The evaluation of the groups' interaction behavior produced several interesting observations that deserve speculative discussion. For example, throughout Group A's session there were long periods of silence, interrupted by frequent re-reading of sections of the problem and overt physical nervousness. This behavior possibly reflected some feelings of guilt among group members because it was evident that the members had not thoroughly familiarized themselves with the problem prior to their discussion session. The long periods of silence were often terminated by fits of laughter, joking, and comments about being watched by the observer and the ward psychiatrist. During their discussion

there were constant changes in opinion, almost continuous smoking, and gum popping. The observer assumed that these activities resulted from high degrees of tension among group members and that possibly these periods of tension represented their inability to overcome impulses of anger.

The most interesting observation during Group A's session was the strong objection to the use of alcohol and drugs. Two members insisted that because Charles Bain "chugged" a beer he was responsible for the death of Al Gonzer. Upon investigating the background of these two patients, the experimenter discovered that the parents of both were alcoholics. Possibly the two members objected to the use of alcohol because of unpleasant past experiences with their alcoholic parents. The same two members strongly objected to the fact that Al Gonzer had taken the drug, but their case histories revealed no satisfactory explanation concerning the use of drugs.

Group A's members appeared content to give personal opinions regarding the problem instead of attempting to associate relevant facts concerning the case and to summarize group progress. Their apparent disregard of evaluation and summary was possibly the product of the emphasis given to random reference about past experiences and opinions during private and group therapy sessions.

Group B consistently used analogy, referring to personal experiences, in pointing out relevant facts relating to the solution of the problem. Furthermore, this group appeared quite conscious of the task before them as they made many unsuccessful attempts at trying to verbalize group evaluations and progress.

During the last five to six minutes of the session the group members attempted to include everyone's personal opinion before deciding who was responsible for the victim's death. Other than several antagonistic remarks directed toward a member's behavior, Group B displayed few periods of tension during this time. This might have symbolized an attempt to gain approval from the peer group members and the adult observer while providing a pleasant atmosphere in which to work while arriving at a solution.

Group C displayed the highest and most constant degree of tension throughout their session. The high degree of tension developed early in their session when one member--a girl--physically withdrew from the group and began playing with some toys located in the corner of the observation room when her attempts to control the leadership position was heavily criticized by the other group members. She finally returned to her seat after being ignored for several minutes by the other members. However, her comments after returning to the group disrupted the group's progress more than her temporary attempt to ignore the group. When she returned to the group she made antagonistic remarks about the other members' comments and procedures and called them "narrow-minded" and "stupid." Her antagonistic actions and remarks resulted in a high level of tension throughout the remainder of the session as the other members reciprocated. This situation possibly symbolized a conflict between a group member not willing to give up her individualism and members who were willing to sacrifice their individualism for group success.

The solidarity of Group D was evident throughout their discussion period. For example, the members established a pleasant atmosphere from the very beginning of their discussion and maintained the atmosphere throughout the 40 minute session. It was interesting to note that the members contributed long individual orations when stating their views. These "long-winded" speeches were seldom interrupted by the other members. The "long-windedness" and lack of interruption might have symbolized that the members realized (since they were selected from an upper level communication course) that effective communication is possible only when the degree of tension is low.

The total group interactions of the normal groups (Appendix VIII) revealed, in this study, that the number of communicative acts was inversely related to their educational level. Possibly this reflects that as the individual advances in years of formal education he talks less and says more.

Finally, the members of the individual groups were acquainted with each other prior to being selected to participate. For example, Group A members had participated in ward activities together; whereas the members in each normal group--B, C, and D--each were academically or socially acquainted prior to being selected. It was felt by the experimenter that each group would display more natural behavior if they were acquainted prior to their session.

Conclusion

The aim of this study was the description of differences, if any, in interaction behavior existing between groups representing different environments. After analyzing the verbal and nonverbal group reactions to the common problem, it was concluded that some differences did exist.

Variation in interaction behavior existed in all the general interaction categories. However, the reliable comparisons were limited because of the conditions under which the research was performed.

Many times the researcher regretted that he did not have the educational background or experience to perform a controlled experimental study. This would have provided a more concrete basis from which more reliable descriptions of differences could have been made. It was the researcher's desire that his conclusions eventually be tested under experimental conditions to determine the reliability of his findings and to provide an opportunity for further observations about differences in interaction behavior between and among the compared groups.

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Appendices

Appendix I

Bales' Interaction Process Analysis Form

The system of categories used in observation and their major relations.

Positive Reactions	<ol style="list-style-type: none"> 1. Shows solidarity 2. Shows tension release 3. Agrees 	Social- Emotional Area: Positive
Attempted Answers	<ol style="list-style-type: none"> 4. Gives suggestion 5. Gives opinion 6. Gives orientation 	Task Area: Neutral
Questions	<ol style="list-style-type: none"> 7. Asks for orientation 8. Asks for opinion 9. Asks for suggestion 	
Negative Reactions	<ol style="list-style-type: none"> 10. Disagrees 11. Shows tension 12. Shows antagonism 	Social- Emotional Area: Negative

Appendix II

Barnlund-Haiman Modification of Bales' Interaction Analysis Form

SMALL GROUP INTERACTION ANALYSIS CATEGORIES

A. Positive Reactions	1. Expresses support, releases tension 2. Agrees or accepts conclusion	Social-Emotional Area
B. Presents Information	3. Gives information 4. Gives opinion or idea 5. Gives argument, reasons	Task Area
C. Aids Group Efficiency	6. Defines or clarifies remark 7. Offers procedural help	Procedural Area
D. Wants Group Efficiency	8. Asks for procedural help 9. Asks for clarification	Procedural Area
E. Asks for Information	10. Answers argument, refutes, criticizes 11. Asks for opinion 12. Asks for information	Task Area
F. Negative Reactions	13. Disagrees, objects blocks 14. Expresses antagonism, tension	Social-Emotional Area

Appendix III

THE LIVE DEAD

A CASE STUDY BASED ON AN "ALFRED HITCHCOCK
PRESENTS" TELEVISION DRAMAINSTRUCTIONS

You are the members of a committee with the responsibility of examining the evidence present in determining whether Charles Baim should be prosecuted for the crime described below.

SITUATION AND PARTICIPANTS

Four members of a university fraternity, along with three college girls, took part in a private party in the fraternity-owned beach house on Study Day. Heavy beer drinking led to a practical joke which resulted in unfortunate and unforeseen consequences. The participants in the party and their roles in the incident are as follows:

Judy Everloo: was present at the party but did not take an role in any aspect of the incident.

Jane Witz: started the incident by goading Charles Baim into accepting Al's challenge to a chug-a-lug contest with a quart of beer. Charles downed his quart, but then Al refused to drink his, making Charles furious. After the practical joke had started, Jane also talked Al into playing dead and taking an injection, and made him up to look cut and bruised.

Evelyn Tate: started the fight between Charles and Al after Al had refused to chug-a-lug his quart of beer.

Jim See: tough up the entire gag and talked the others (who were reluctant at first) into it. He also put the fire-place poker (a pretended death weapon) in Charles' hand after Charles had passed out.

Ed Shun: a doctor's son who knew about, obtained, and ad-

ministered (by injection in the arm) the sedative that made Al unconscious and slowed his pulse and respiration so much that he appeared to be dead.

Al Gonzer (the deceased victim): tricked Charles by challenging him to a chug-a-lug duel, and then refused to drink his quart of beer. After Charles passed out and Jim thought up the gag, he agreed (reluctantly) to take the injection and play dead so that when Charles came to he would think that he had killed Al and would be scared into doing and saying "funny things."

Charles Bain: a "not-the-party-type-boy" intellectual who was goaded into the chug-a-lug contest, tricked, got mad and tried to fight Al until he passed out from the alcohol he had consumed. When he regained consciousness a few hours later (though his brain was far from clear), he found the fireplace poker in his hands, Al lying on the couch with what looked like blood on his face and not seeming to be breathing, and everyone else gone.

CRIME

Charles, in his stupor, decided that Al was dead, and ran over to Ed's father's beachhouse nearby where the others had gone. He went in. Everyone acted normal, as if nothing was wrong, and asked him how he felt now. Charles, believing he had killed Al, couldn't bring himself to admit what he thought he had done, and so left and went back to the cottage where Al was.

At this time Charles decided to hide the crime, so he carried Al out on the beach, dug a shallow grave in the soft sand, and buried him. Then he went back and straightened up the cottage. By this time, he had sobered up somewhat, so he went over to the Shun's beachhouse to rejoin the gang. Jim started asking him about Al, and finally Charles confessed that he had murdered him. Everyone started laughing and Charles got furious and hysterical because no one would believe him. Finally he shouted that he had, too, killed Al and had even buried him on the beach. At this,

everyone got scared, questioned Charles closely, and then followed him out to the beach to dig up and revive Al.

Unfortunately, Charles, who was still in a stupor when he buried Al, couldn't remember where he had buried him. And besides, in the hour or so that had passed the tide had come in enough to cover the body. By the time he was found, Al was dead. The coroner established the cause of death as drowning.

CONCLUSION

These are the facts of the case. Your question, again, is: Does the evidence warrant whether Charles Baim should be prosecuted for the crime committed?

Appendix IV

PLEASE PRINT

PARTICIPANT INFORMATION FORM A

The purpose of this form is to acquire information vital to the outcome of this research project. The following information will be used only in computing the composite group background.

1. NAME

(last) (first) (middle)

2. AGE

3. SEX (circle one)

MALE

FEMALE

4. EDUCATIONAL LEVEL (circle one)

Grades: 1-6, 7, 8, 9, 10, 11, 12,

College: 1, 2, 3, 4, grad.

Appendix V

PLEASE PRINT

PARTICIPANT INFORMATION FORM B

The purpose of this form is to acquire information vital to the outcome of this research project. The following information will be used only in computing the composite group background.

1. NAME

_____ (last) _____ (first) _____ (middle)

2. AGE

3. SEX (circle one)

 MALE FEMALE

4. EDUCATIONAL LEVEL (circle one)

Grades: 1-6, 7, 8, 9, 10, 11, 12,

College: 1, 2, 3, 4, grad.

5. EMOTIONAL DISTURBANCE (a short description to be completed by a psychiatrist for the institutionalized patient, only)

Appendix VI

SMALL GROUP INTERACTION ANALYSIS FORM

DIRECTIONS: The **COMMUNICATIONS** of each participant (**INITIATOR**) are recorded in the rows below his name. Record in the appropriate column the **RECIPIENT** of the communication. If the communication is addressed to a particular member, record in the column the identifying number of the **RECIPIENT**. If the communication is addressed to the group as a whole, or if the recipient is indeterminant, record the symbol "0" (zero) in the appropriate column.

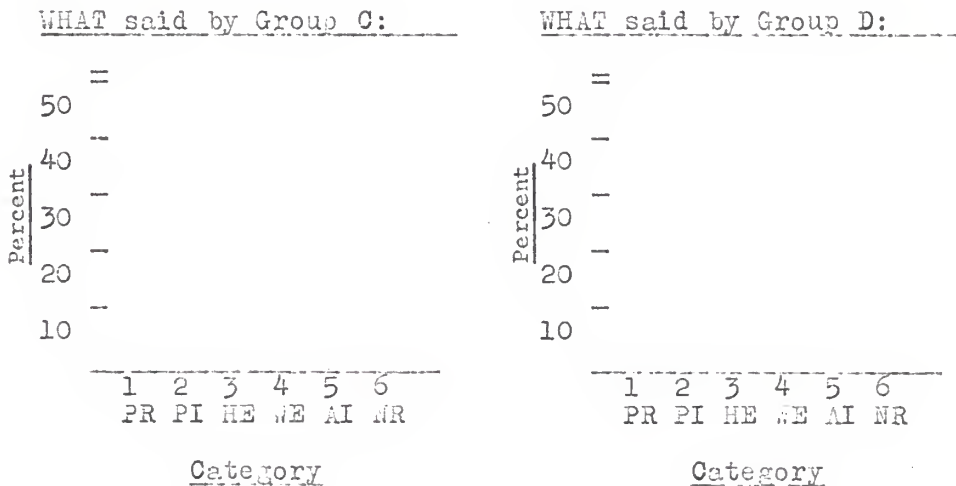
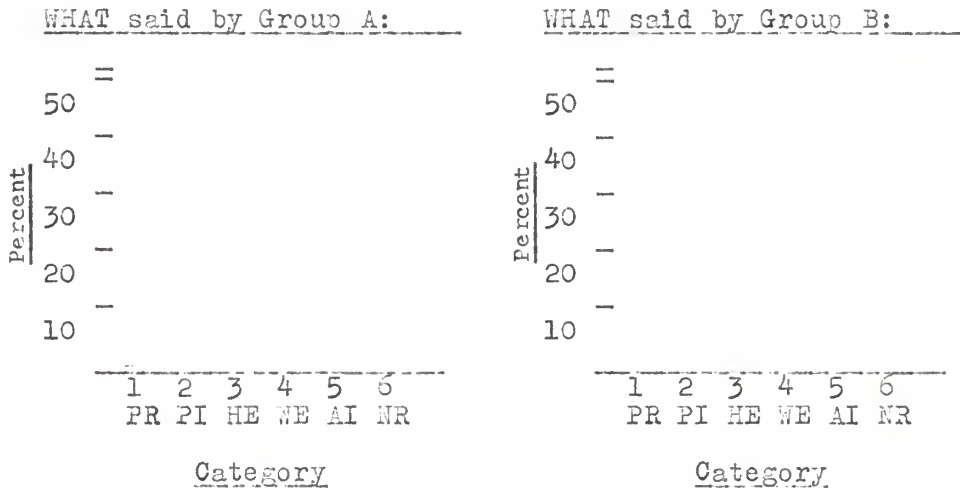
INITIATORS AND RECIPIENTS

	1	2	3	4	5
COMMUNICATIONS POSITIVE REACTIONS -PR- Expresses support, releases tension, agrees accepts concl.					
PRESENTS INFORMATION -PI- Gives information, opinion, idea, position, reasons					
HELPS GROUP EFFICIENCY -HE- Defines, clarifies, guides, offers procedural help					
WANTS GROUP EFFICIENCY -WE- Asks for procedural help, guidance, clarification					
ASKS FOR INFORMATION -AI- Asks for opinion, information, position, reasons, criticized ideas					
NEGATIVE REACTIONS -NR- Disagrees, objects, argues, expresses tension, antagonism					

Appendix VII

For Each Group

Nature of Communication--WHAT--Initiated by Each Group



Appendix VIII

	Group A	Group B	Group C	Group D
Positive Reactions	29%	30%	17%	24%
Presenting Information	30%	28%	27%	15%
Helps Group Efficiency	15%	46%	18%	21%
Wants Group Efficiency	16%	47%	20%	17%
Asks for Information	24%	41%	18%	17%
Negative Reactions	39%	7%	43%	6%
Total Group Interactions	27%	32%	24%	17%

Appendix IX

	Average Educational Level	Average Age Level
Group A	9	16
Group B	8	14
Group C	10	15
Group D	15	24

VARIANCE IN INTERACTION BETWEEN SELECTED
YOUTH AND ADULT GROUPS; UTILIZATION OF THE
BARNLUND-HATMAN MODIFICATION OF THE BALES
INTERACTION PROCESS ANALYSIS FORM

by

CHARLES WILLIAM BOLES

B. S., Kansas State University, 1967

AN ABSTRACT OF A MASTER'S THESIS

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Department of Speech

KANSAS STATE UNIVERSITY

Manhattan, Kansas

1968

Purpose

This study was designed to describe what differences, if any, in interaction behavior existed between groups representing different environments. Three youth and one early adult group were used in the study. One youth group (adolescent mental patients) represented the institutional environment, while the normal environment was represented by the other two youth groups (junior high school and senior high school students, respectively) and the early adult group (college students) represented the normal environment.

Procedure

Four groups of five members each were selected from volunteers of class and patient populations. Each group, without an appointed leader, was placed in an observation room containing two-way mirrors and microphones. The task of each session consisted of the discussion of a problem which centered around the facts of a death which had resulted from a practical joke. These facts were presented to the participants in a three page hand out. Each participant was given the case prior to the session, and asked to study it until the events were well in mind. Furthermore, they were asked not to discuss the problem with anyone prior to the actual group session. The members were allowed to keep their copies during the session for reference.

The task of each session was to determine, by majority opinion, which character(s) in the case was responsible for the victim's death. The group was asked to limit itself to 40 minutes and to verbalize the group resolution for the sound record

in the final one or two minutes of the meeting. After this, the experimenter left the room. The group was not rigidly held to the 40 minute time limit, but was allowed to take a little longer if necessary.

Results

Inspection of the summary profile showed differences in interaction behavior in 39% of the comparisons. Using the institutionalized group's percentages as a basis for comparison, it was found that the senior high group had a lower percent of positive reactions, the college group a lower rate of presenting information, and the junior high group higher rates in helping group efficiency, wanting group efficiency, and asking for information. Finally, the institutionalized group showed a higher rate of negative reactions when compared to the junior high and college groups.