

PATTERNS OF INTERACTION OF DISADVANTAGED FAMILIES

by

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CHAPTER I

INTRODUCTION

Knowledge of the inner workings of the family is generally assumed to be necessary to be able to assist the family in meeting the needs of its members. More emphasis is being placed on the part that family interaction plays in the maintenance of the emotional well-being of family members. Family counseling, marriage counseling, and family life education all require some understanding of the functioning of the family. The purpose of this research is to further explore a basic aspect of family functioning -- the patterns of family interaction.

The family has been studied in various ways. The predominant unit of study is not, however, the whole family. Rather, segments of the family have received the most attention. Considerable research has involved individuals, parent-child dyads, and triads as units of study. The husband-wife dyad has received much attention (Ruano, et. al., 1969). Because study of these segments of the family has only limited potential in facilitating understanding of the total family, there has been increasing demand to study the family as a complete unit.

The family as a unit of study has been used little for one major reason: the difficulty of researching that unit with present methodology. Several factors justify study of the total family. From such study, the process of interaction within the family can be discovered; better understanding of the process of socialization within the family can be achieved; more effective ways to aid the family in its living can be explored; and

family theory can be supported and expanded. Being able to increase knowledge in these areas merits the development of improved methodology in "whole-family" study.

To further delimit the area of study, the disadvantaged family as a unit needs to be investigated. The middle class family has received more attention in family research than the disadvantaged family. Frequently findings and theories from middle class family research are applied to disadvantaged families in the effort to understand and assist them. The assumption that knowledge about families is applicable to both of these groups may be unjustified. The purpose of this research is to utilize videotape to observe family interaction and determine its workability; to compare the interaction of four disadvantaged families; and utilize the symbolic interaction theory to facilitate an understanding of the findings.

Methodology is an important factor in family research. Ruano and others (1969) found that eighty-six percent of the family research conducted during the period 1962-1968 involved the interview, questionnaire, and secondary sources as techniques for gathering data. These methods could be considered inadequate in the study of family interaction. Ruano stated that direct observation is desirable because it allows the researcher to see the family "in process." Videotaping is the method for recording the observation of families used in the research presented here.

The objective of this research is, then, to observe family interaction utilizing videotape and compare the interaction of four disadvantaged families. As will be discussed later, symbolic interactionism would lead to the hypothesis that the differences among the ways in which these families define their "worlds" would cause their patterns of interaction to differ.

That hypothesis will be tested by breaking it down into several null hypotheses after stating the primary hypothesis in null form: there is no significant difference among the interaction patterns of disadvantaged families. This primary null hypothesis will be subdivided into the following secondary null hypotheses:

Among disadvantaged families, there is no significant difference

1. In the mean total number of verbal communicative acts;
2. In the mean total number of nonverbal communicative acts;
3. In the mean total number of positive nonverbal communicative acts;
4. In the mean total number of positive verbal communicative acts per task;
5. In the mean total number of negative verbal communicative acts per task;
6. In the mean total number of negative nonverbal communicative acts per task;
7. In the mean frequency of verbal and nonverbal communicative acts by the different family members.

In testing the null hypotheses, several terms must be operationally defined. The .2 significance level is selected as the criterion for rejection of the null hypotheses. A disadvantaged family is one the researcher, for reasons specified in the text, judged the family to be disadvantaged. A

communicative act is any observed action that conveys meaning to another family member or members. Verbal communicative acts are those voiced by a member; nonverbal acts are those which convey meaning through some means other than voice. Positive or negative communicative acts are those which can be categorized in the positive or negative affect areas of the interaction categories used in this research. Interaction pattern is the frequency distribution of communicative acts among the system of interaction categories utilized in the research.

Using appropriate methods of research and analysis, the problem defined above will be studied. Hopefully, this research will add significantly to the knowledge of communication within the family.

CHAPTER II

REVIEW OF THE LITERATURE

In the following review of the literature on family research and theory, studying interaction of family units will be justified. The methods of investigation used in the research described in this paper will be supported, and research illustrative of the general approach of the research presented here will be examined.

The basic process under study here is family interaction. Basis for studying that process is found in the symbolic interaction theory. A brief summary of the assumptions and concepts of the theory follows.

Symbolic interaction as a theory deals with a process from which both society and the individual are derived -- social interaction. Several assumptions are made in considering that process. The first is that the most meaningful understanding of human behavior is derived from the study of human beings rather than animals, because only humans can respond to their environment symbolically. The second is that the easiest way to understand human behavior is by an analysis of society. An infant is born into a complex of relationships called society with which he is forced to interact. The theory holds that human behavior and development can be understood by looking at this process of interaction of the infant with society. The third assumption is that men are actors as well as reactors, but that man acts and reacts on the basis of the way he symbolizes or perceives his environment. The researcher using the symbolic interaction approach must, therefore, understand the world as his subjects perceive it in order to

fully understand their actions in that world. Much of the research cited subsequently attempts to do that. The fourth major assumption is that an infant is born asocial. He has the potential for becoming social or anti-social, but at birth he is neither. The interaction of the infant with the society around him determines the manner in which that potential is developed.

Social interaction is the process about which symbolic interaction theory is concerned. To understand the process of social interaction, some major concepts must be explicated. Implied in the first assumption is a basic difference between man and other animals. That difference is man's capability to symbolize his experiences. The clearest example of that is language. The beginning of language is the social act. An act is behavior which expresses an impulse and at the same time requires adjustment to objects in the external world. A social act is one in which the object is another person. This implies interaction because the object-person is also an actor and participates in the action of the first person.

Social acts occur over time and thus have a history. One part of a social act may therefore come to mean that another part will soon follow. The first part of the act which predicts the rest of the act is termed a gesture. When the behavior predicted by a gesture is understood to be the same by the one who gestures and the one who perceives the gesture, the gesture is called a significant symbol. Language proceeds out of these significant symbols.

Man acts and reacts on the basis of his symbolic representation of the world. That means that man acts in a situation according to the manner in which he symbolizes that situation or, in other words, defines that situation. This process of symbolically representing the environment does not end with the external world, but also includes one's representation of him-

self. The symbols we use to define a situation may be ones that symbolize groups of objects or persons in our environment. These groups are termed categories and serve to order our environment. A particular kind of category is that of a position. This is a general category used to classify persons. Certain behavior is expected from persons of a particular position. This set of expected behaviors is termed a role. Of course a position or a role cannot be considered in isolation. One position which classifies one group of persons implies that there is another position -- a counter-position and with it a counter-role.

The major assumptions and concepts of the theory have been explained. The following discussion will combine theory and supportive research with the research presented in this thesis.

To begin with, symbolic interaction theory supports the study of the family as a unit. Rose (1962) in a discussion of the process of socialization and symbolic interaction stated that a person is socialized into subcultures as well as general culture. The family can be conceived of as a subculture into which persons are socialized. Rose stated that men are able to predict behavior of others and act accordingly by learning culture and subcultures. Symbolic interactionism holds that we anticipate behavior through gestures which become significant symbols. The family develops gestures and symbols by which it interacts. The family as a subculture can, therefore, be derived from Rose's formulation of symbolic interaction. Leik (1963) demonstrated that the family is a unique unit of study. He compared the interaction of small groups to that of families and found that the patterns of interaction in the family were different from those of the groups. The family unit is, thus, a valid unit of study, for it is a group of persons learning their own

culture by developing gestures and significant symbols by which they interact.

Further support for studying the family as a unit has been offered by Handel. He stated that:

Some investigators (Handel & Hess, 1956; Hess & Handel, 1959) have argued that, regardless of the ties that link a nuclear family to kin and wider social groups, there is a sense in which the nuclear family is a bounded universe. The nuclear family is a meaningful unit of study because typically, its members inhabit a common household which is not shared with relatives; within these boundaries -- the home -- the family members develop long-sustained, relatively more intense and meaningful relationships among each other than with outsiders, including kin residing in other households (Handel, 1968, p. 517).

Handel utilizes Burgess' formulation of the family as a unity of interacting personalities as support for his position. Burgess stresses the concept of each member of a family being a unique personality. He rejects the hypothesis that parents are the independent variable and children, the dependent variable. Burgess concludes that valid research of the family as a unit should have the following characteristics: (1) it must conceptualize the family as a unit; (2) the research must study the personality of each member and the relationship among the members; and (3) it must collect data from each member. The research presented here meets those requirements.

Justification for direct observation of family interaction has been given by several researchers. Ruano and others stated that:

Direct observation of the family is appropriate not only because it enables the researcher to view at close range the family in process but also because it affords the family the opportunity to drop some of its "staging behavior" if and when the researcher becomes less suspect (Ruano, 1969, p. 691).

In an article outlining the difficulties in studying parent-child relationships, Yarrow (1967) suggested further observational study of family inter-

action is urgently needed. Yarrow challenged researchers to explore new methods of observational research in family interaction investigations. Weller and Luchterhand (1969) added to the evidence in favor of observation as a valid means of gathering data on family interaction. They compared interview data collected by homemakers working with 39 Negro families with observational data collected by the same homemakers. They found significant correlations in only two out of eleven areas and concluded that observation was a more valid technique than the interview.

Direct observation was the method used in the research described in this thesis with one significant modification. Videotaping was used as the method of observation. Precedent for utilizing videotape to observe family interaction has been established by several researchers. Perlmutter studied families in therapy to determine if videotaping could be used to aid the therapeutic process. The procedure was to invite the family clients to participate, request their permission to record the therapy sessions on videotape, record the session with cameras unconcealed, and play back the recording to the clients and therapists. In the process of therapy, Perlmutter found videotaping to be valuable in three areas. It helped both the families and therapists see points at which the family became uncommunicative and those at which the family was threatened by the interaction of one of its members; studying the techniques of the therapists was facilitated; and the reaction of the clients to the playback proved valuable to therapy. This research illustrates the usefulness of videotaping in recording family interaction. Borke (1969) also used videotaping through a one-way mirror to record both verbal and nonverbal interaction. The families were given tasks to perform which were designed to induce normal interaction. Protocols of

both verbal and nonverbal interaction were transcribed from the videotape. Two judges then interpreted the protocols in three steps indicating the initiator and recipient; the intent of the initiator; and the category in which the interaction belonged. Reliability was established by determining the percent of agreement between the first two judges and a third one. Acceptable reliability was obtained. Videotaping has, thus, proved to be a useful method for obtaining data on family interaction.

The literature yields two examples of research similar to that presented in this paper. Straus (1968) conducted a study in which he found communication to be major factor in the problem-solving ability of families. One of Straus' objectives was to study the ability of families of middle and lower class in three cultures to solve a problem. He gave families from Bombay, India; San Juan, Puerto Rico; and Minneapolis, Minnesota, the task of learning the rules of a game. They were given signals indicating a right or wrong move. He found that the lower class families communicated significantly less than middle class families. This lack of communication hindered the problem-solving ability of the working class families. The significance of those findings is that the interaction patterns of the two groups of families were significantly different. Straus' results could be predicted from symbolic interaction theory. Likewise a difference in interaction patterns among the families researched here could be predicted from that theoretical position.

Research dealing directly with interaction patterns of disadvantaged families is that of Minuchin and others (1967). They dealt with disadvantaged families who had a child in the Wiltwyck School for Boys. The families performed a series of tasks while being viewed through a one-way mirror. The

researchers found the patterns of interaction of these families to be significantly different from those of control families. Symbolic interactionism would account for this difference in that these two groups of families have been socialized in two different subcultures and thus have different role expectations, gestures, significant symbols, etc.

The two preceeding examples found significant differences between groups of families. The objective of the research presented here was to find if there were any significant differences among families of one general group -- disadvantaged families.

This review of literature dealing with family interaction research reveals several things. First symbolic interaction theory provides a rationale for studying the interaction of families. Second this theory and research conducted on family interaction establish the whole family as a meaningful unity of study. Third direct observation can be considered perhaps the most fruitful way to obtain insight into the interaction of the family. Video-taping provides a feasible means of recording the interaction of the family as was shown in two previous research projects. Last Straus and Minuchin and others' research established precedent for studying disadvantaged family interaction.

CHAPTER III

THE METHOD OF THE RESEARCH

The method employed in this study grew out of the symbolic interaction approach to the study of the family. In the preceeding chapter, research was cited which supports the procedures described in this chapter. The subjects will be described here as well as the procedure used in collecting and analyzing data.

I. DESCRIPTION OF THE SUBJECTS

The subjects for this research were chosen from a sample of a larger research project. The families were included in a random sample of rural families drawn by the Iowa State University Sampling Laboratory. The purpose of the project for which that sample was taken was to study the life styles of rural disadvantaged families. The sample was taken from eight towns in northeast Kansas with populations between 1000 and 2500. The subjects of the research described here were taken from one of those towns, Elwood, Kansas. Choosing the families from one town simply made the research logistically more feasible, given the time and money constraints.

Elwood, Kansas, is a town with a population of 1322. It lies in the extreme northeast corner of Kansas on the Missouri River. St. Joseph, Missouri, is directly across the river and is the economic base of Elwood. Elwood tends to be a "bedroom" community, with families living in Elwood and working in St. Joseph. Elwood is located on U. S. Highway 36 and is supported some from the traffic along that highway. Elwood does have its own school, but most of the families interviewed in the larger research project

were dissatisfied with the quality of the school system. The population of Elwood is mostly working class.

The four families studied can now be seen in the context of their environment. Each family will now be described to give a more complete picture of the subjects.

Family 1 had the following composition: husband, 36 years old; wife, 32; daughters, 14 and 8; and sons, 12 and 10. The husband completed seventh grade and the wife, eleventh grade. All of the children were at the normal grade level for their age. The husband had been a truck driver until shortly before the initial interview. His takehome pay had been \$131 per week until he developed heart trouble and an ulcer and had to quit his job. This placed the family in economic straits. The mother went to work to help keep the family solvent. She worked in a grocery store approximately 25 hours per week. The husband had gone back to work for a contractor as a carpenter against his doctor's advice. He soon had to quit that job and at the time of the videotaping did not have a job. The husband seemed to be humiliated by the situation. The level of frustration in the family was high because of the economic status of the family, the sickness of the father, and, in addition, problems with a teenage daughter who apparently upset the parents. In spite of the situation of the family and the tension present, the children seemed to be happy (except the teenage daughter). The family was very active in their church and indicated they depended on it very much for emotional and occasionally financial support. The family was considered by the researcher to be disadvantaged because of the disability of the father and the resulting financial problem.

Family 2 consisted of the husband, 32; wife, 31; sons of 13 and 11,

and daughter of 10. The family lived in a house that was in need of repair and paint, both inside and out. The inside was somewhat dirty with clothes lying around on the furniture (which was worn threadbare) and floor. The family appeared to be healthy.

The family had some unique characteristics. The oldest boy was deaf and the younger one was retarded. The deaf son had been in a school for the deaf at Olathe, Kansas, the year preceeding the summer of the research. He seemed to be very bright and his parents were very positive toward him. The school was very expensive and was financially difficult for the family. The retarded son had never been in school. His parents wanted him in school but had not been able to find one that would take him, the Elwood school included. The boy was very happy and at the very least seemed to be trainable and possibly educable. Those are subjective judgments of the researcher. The relationship between the parents and the retarded son seemed to be positive also. The mother spoke of having to educate her neighbors about the reasons why she allowed her son to play as a normal child instead of hiding him. She informed her neighbors verbally and through her actions that she was not ashamed of her retarded son.

The income of the family was \$7000 per year. Both mates worked. The wife did not want to work but did because she felt she must. She made \$1768 during 1969; his takehome pay was \$4316. She washed dishes in a local truckstop; he was a laborer in a mill that manufactured gunstocks. In addition, the husband hunted raccoons and sold the pelts. That source of income amounted to \$420 in 1969. The wife completed ninth grade and the husband graduated from high school.

The roles of the husband and wife seemed to be well-defined. The

husband stated that he used to beat his wife some, but he had stopped doing that. The couple had no really close friends (their own statement). They had very little contact with neighbors.

The family was judged to be disadvantaged because of the low income and the special conditions of the family. The exceptional children created a financial burden as well as other special problems.

The third group of subjects was a family of four composed of the mother, 42; a son of 17, and two daughters, 11 and 10 years of age. The income of the family was \$4582. Of that amount, \$2122 was from wages, \$960 from AFDC, and \$1500 from child support payments. Family 3 lived in a late model mobile home. One of the greatest concerns of the mother in addition to money was that her son had dropped out of school. Their relationship was strained to the point that the son was not home most of the time. The mother was tired and said she wished she had job training so she could get a better job. She was a high school graduate. She worked in the kitchen of a hospital in St. Joseph. The family was considered disadvantaged because of three factors: the family was one-parent; the low income of the family; and the strained relationship between mother and son.

Family 4 is similar to Family 3 in that it was a one-parent family, the mother being divorced. The mother, aged 42, had four children living with her and two living with her mother. The only son was 12; the three daughters living in the household were aged 10, 9, and 5. The two daughters living with their grandmother were 19 and 15. They did not participate in the research since they were not a part of the normal household. The only source of income for the family was Aid to Families with Dependent Children which amounted to \$3000 per year. The mother completed sixth grade. The

two older daughters were from the mother's first marriage and the others from her second.

The family lived in an older home which was clean and seemed to be in fairly good condition. The mother indicated she did not have very many friends. Fighting among the children was the problem that concerned her most. Her dissatisfaction with her life was evident in her statement that if she had it to do over, she would not marry the same person; she would, in fact, not marry at all; and she would have no children in either case.

The family was considered disadvantaged because of its low income and its one-parent status.

The subjects, then, were four families that were judged to be disadvantaged for specified reasons. Several factors should be kept in mind in considering these subjects.

First, the subjects were not randomly selected. They were selected from the larger sample explained earlier. Two biases are present. The first is that the families were not selected at random. The second is that the biases of the researcher are present since the disadvantaged status of the families was a judgment of the researcher.

Second, the number of subjects is small; consequently, results from the research cannot be generalized to a larger population to any great extent.

Third, in the cases of Families 2 and 3, one member was not present during the videotaping. The interaction patterns of those two families probably deviated from the norm because of the absent member.

II. A DESCRIPTION OF THE MEASURES EMPLOYED

Only one instrument will be described here. The rest will be explained in the "Procedures" section.

The instrument used to analyze the videotaped interaction consisted of eight categories in which interaction might occur (see Figure 1). The eight categories were divided into two areas: verbal and nonverbal communications. Each of those areas were divided into four categories, two of which were task oriented communications and two, communication of affect.

The intent of the categories of interaction was to be specific enough to break the interaction patterns down into definable areas. On the other hand, the categories were general enough that decisions by the recorder as to which category a communication will be placed could be made rapidly and accurately. The more categories used, the more difficult the categorization of communication. O'Rourke (1963) and Lied (1963) both used modifications of Bales' interaction analysis categories. Pease and others (1960) cited Howell and Brady's conclusion that broader categories yielded more consistent reliability in analysis. The categories used in this research were derived from Bales' system. The only real variations were the use of more general categories and separating verbal and nonverbal communications so that these two methods of communicating could be studied separately. Figure 1 shows the organization of the categories.

The judges recorded the analysis of the interaction on large sheets ($33\frac{3}{4}" \times 13\frac{3}{4}"$). The initiator and recipient were recorded for each interaction. Each sheet was divided into the eight categories of interaction. Each communication was placed in its respective category as judged by the recorder. For example, a mother might say to her son with a scowl, "You

VERBAL INTERACTION

1. Social-Emotional Area: Positive Reactions
 - a. Shows solidarity, raises other's status, gives reward;
 - b. Shows tension release, jokes, shows satisfaction;
 - c. Agrees.
 2. Task Area: Facilitates Task Completion
 3. Task Area: Detracts From Task Completion
 4. Social-Emotional Area: Negative Reactions
 - a. Disagrees;
 - b. Shows tension;
 - c. Shows antagonism, defends or asserts self, deflates others.
-

NONVERBAL INTERACTION

5. Social-Emotional Area: Positive nonverbal Reactions
 - a. Shows passive acceptance.
 - b. Laughs, shows satisfaction;
 - c. Tension release.
 6. Task Area: Facilitates Task Completion
 7. Task Area: Detracts From Task Completion
 8. Social-Emotional Area: Negative Nonverbal Reactions
 - a. Shows passive rejection;
 - b. Withholds help;
 - c. Withdraws out of field;
 - d. Disruptive behavior;
 - e. Shows tension.
-

FIGURE 1*

INTERACTION CATEGORIES

*Categories adapted from Bales (1950).

never do anything right! Let me do it this time." The recorder would place an M-1 (indicating mother to son) in the verbal -- negative affect category and an M-1 in the nonverbal -- negative affect category (the scowl constitutes nonverbal communication).

The tasks used will be explained in the next section. The categories were designed to facilitate discrimination among them. The next section will further demonstrate their use.

III. RESEARCH DESIGN AND PROCEDURE

The research presented here is descriptive research. The intent of the research was to describe the interaction patterns of families as they were. No correlations were attempted. The object was simply to discover any significant differences among the families in the way they interacted.

The setting of the research was a motel room in Elwood, Kansas, in the summer of 1970. The families were contacted the evening before the actual experiment, except for one family which was contacted the day of the experiment. Each family was told it would receive \$10 for participating in the experiment. Transportation was provided for those families needing it.

Equipment for the experiment consisted of the 0.5 inch videotape equipment, two screens made from cardboard, a clock, task cards, and a game called "Blockhead." The researchers were behind the screens during the experiments, along with the camera and video recorder. Chairs for the subjects were situated in a semi-circle around a small table upon which were the cards explaining the tasks, the blocks for the fifth task, and a clock used to time the last task. The chairs faced the camera. Lighting was provided by lamps and existing light through windows. The microphone was

placed approximately five feet away and was visible to the families. The monitor, also visible, was not on during the taping.

The tasks presented to the subjects on the five cards -- one per card -- were derived from those used by Minuchin and others (1967). The cards were placed face-down on the table with the first task on top and the last on the bottom. The tasks were designed to produce as natural interaction as could happen under the research conditions. The following were the tasks as they appeared on the cards.

CARD 1

Imagine you are planning a meal. Decide as a family what you would have. You may choose any food you like, but you must choose only one meat, two vegetables, one drink, and one dessert. Remember, try to reach agreement on the menu. When you finish this task, go to CARD 2.

CARD 2

Here is another situation for you to talk about. Suppose one of the children in the family wants to go to the show, but plans had been made earlier by the family to go visit relatives.

1. Who should decide what the child will do?
2. How would you solve this problem?

CARD 3

You will receive \$10 for helping us here today. Decide how the money will be spent. When you finish, go on to CARD 4.

CARD 4

Every family knows some things about itself. We would like for you to discuss who in your family fits each of the following descriptions:

1. Who is the happiest?
2. Who is the most bossy?
3. Who is the hardest worker?
4. Who is the biggest trouble-maker?

5. Who is the one who gets away with murder?
 6. Who is the most easy to get along with?
- Talk these over together and decide who fits each description. Go to CARD 5 when you finish.

CARD 5

You see before you a pile of blocks of various shapes. The object of the game is to stack as many blocks as you can without knocking over the stack. The only catch is that you will have a 2-minute time limit. Use the clock before you to time the game. You have 3 chances to stack as many blocks as you can. Take 2 minutes each try. This is the final task. You may start now.

When the family arrived, they were introduced to the coresearcher. After they were seated, the physical setting was explained to them -- the location of the camera, etc. Then the procedure was explained, including the use of the cards, clock, and blocks. The families were instructed not to direct any questions to the researchers during the experiment to eliminate interaction with persons outside of the family. They were told the researchers would remain behind the screens until the experiment was completed and to proceed when the experimenters were behind the screens. The families were shown the tapes or parts of them after the tasks were completed. That was not part of the experiment.

The next segment of the research was the analysis of the taped interaction. This was done by a graduate student on a volunteer basis. This recorder was given instructions regarding the use of the interaction categories. He then viewed each tape, carrying out the analysis. When the analysis was completed, the results were recorded in tables according to individual family members (see Appendix A). Each initiation and reception was recorded and awarded to the initiator and receiver. Totals were found

and means computed. The statistical analysis proceeded from the means.

The primary statistical tools utilized were the chi-square test for goodness of fit and the t-test. The primary process used with chi-square was to compare the observed means of interaction with the expected means of the four families. The .2 level of significance was chosen as the criterion for rejection of the null hypotheses. To test the null hypothesis: "there is no significant difference among the families in the total mean number of communicative acts per task," for example, the means were determined for each family, the mean of the four families was computed, and the chi-square test was applied at the .2 level of significance. If the chi-square values were found to be significant, the null hypothesis was rejected; that is, the distributions were significantly different from the null hypothesis of no difference among the families.

The t-distribution was used to test null hypotheses 3-7. The procedure was to establish the population mean (mean of all families) and compare each individual family mean to the population mean. The t-distribution was used to test the null hypotheses. The .2 level of significance was used as the criterion for rejection of the null hypotheses. Because of the small sample sizes, the chance for error was high, rendering many t-values insignificant. Because of the small sample size and the exploratory nature of the research, the relatively high level of significance was chosen.

CHAPTER IV

THE FINDINGS OF THE RESEARCH

This section will present the findings of the research, including a description of the analysis used, the results obtained, and a discussion of those results.

I. THE STATISTICAL ANALYSIS AND RESULTS

Two methods were used to test the null hypotheses. The first was the chi-square test of "goodness-of-fit" and the second, the t-distribution. Chi-square was used to determine if the distribution of the means of the families was significantly different from the hypothesized mean of all of the families. The t-test was used to test the significance of the differences between a family mean and the mean of all the families. The advantage of the t-test was that it could be used with a sample of any size (Roscoe, 1969). A more detailed description of the use of those tests will be given in the following presentation of the results of the analysis. The results will be presented according to each hypothesis.

Null Hypothesis 1. The hypothesis is stated: among disadvantaged families, there is no significant difference in the mean total number of verbal communicative acts per task. The chi-square statistic was used to test this hypothesis. For each family the mean number of verbal responses per task was found. These were summed and the mean number of responses per task computed for the entire sample. The mean for the sample was then used as the expected frequency in the computation of the chi-square statistic.

Table 1 shows the values of the expected and observed family means.

TABLE I
MEAN FREQUENCIES OF COMMUNICATIVE
ACTS PER TASK

Family	Expected Mean Frequencies	Observed Mean Frequencies
1	30.0	38.4
2	30.0	14.8
3	30.0	37.8
4	30.0	29.0
Chi-square value = 12.1*		

*Significant at .02 level.

The chi-square value for the comparison of these two distributions indicates such variations from the mean expected cannot be due to chance.

The rationale for conducting the test of the hypothesis using the mean of the entire sample as the expected frequency comes from the interactional approach to understanding the family. According to interactional theory, each family will have a unique manner of interacting. Thus, in the null hypothesis, it was assumed that the families would all have the same pattern of interacting -- the same mean number of verbal communicative acts per task with only chance variations. The chi-square test indicated the families did not exhibit the same pattern of verbal interaction, assuming the number of verbal communicative acts to complete a task is one measure of the pattern of interaction.

Null Hypothesis 2. Among disadvantaged families, there is no significant difference in the mean total number of nonverbal communicative acts per task. Chi-square was also used to test this null hypothesis. Table II shows the expected frequency distribution and the observed mean frequencies. The value of chi-square shown led to the rejection of the null hypothesis. The observed distribution of nonverbal responses differs significantly from the uniform distribution assumed in the null hypothesis.

TABLE II
MEAN FREQUENCIES OF NONVERBAL
COMMUNICATIVE ACTS PER TASK

Family	Expected Mean Frequencies	Observed Mean Frequencies
1	6.30	15.60
2	6.30	4.20
3	6.30	4.40
4	6.30	2.00
Chi-square value = 17.90*		

*Significant at .01 level.

Null Hypothesis 3. Among disadvantaged families, there is no significant difference in the mean total number of positive nonverbal communicative acts per task. Roscoe (1969) states that chi-square tests approximately the multinomial probability distribution adequately only when at least 80 per cent of the expected frequencies are five or greater. The category of interaction being tested in Hypothesis 3 did not meet that restriction; therefore,

the t-distribution model was used to test the third hypothesis.

The t-test was used to determine one primary thing: whether the mean of positive nonverbal communicative acts of the sample was significantly different from the mean number of positive nonverbal acts of "Family X." The mean was determined for the sample (Table III) and compared to the mean of each family. In only one case was the difference found to be significant. An assumption was made in using the t-test. The sample mean was assumed to approximate the population mean. The fact that the sample was not chosen randomly has some bearing on that assumption and results using the t-test should be viewed with that in mind.

TABLE III
T-VALUES FOR POSITIVE
NONVERBAL ACTS

Family	Mean	Sample Mean	N	t
1	3.80	2.20	5	0.689
2	0.60	2.20	5	-4.000*
3	2.40	2.20	5	0.114
4	2.00	2.20	3	-0.239

*Significant at the .02 level.

Null Hypothesis 4. The fourth hypothesis is stated: among disadvantaged families, there is no significant difference in the mean total number of positive verbal communicative acts per task. Table IV presents the results of the analysis of the data. The mean frequencies of the families did not vary significantly from the hypothesized mean of the

population. Therefore, the null hypothesis must be retained.

TABLE IV
T-VALUES OF POSITIVE VERBAL ACTS

Family	Mean	Sample Mean	N	t
1	10.40	8.60	5	0.402
2	5.80	8.60	5	-1.000
3	11.20	8.60	5	0.700
4	7.00	8.60	3	-0.456

Null Hypothesis 5. Among disadvantaged families, there is no significant difference in the mean total number of negative verbal communicative acts per task. Table V shows the results of the t-tests of the null hypothesis. The mean for Family 2 again varied significantly from the hypothesized mean.

TABLE V
T-VALUES FOR NEGATIVE VERBAL ACTS

Family	Mean	Sample Mean	N	t
1	8.40	6.50	5	-0.425
2	2.60	6.50	5	-1.850*
3	9.00	6.50	5	0.506
4	6.00	6.50	3	-0.100

*Significant at the .2 level.

Chi-square was also used to test the fifth hypothesis. The chi-square value of 3.90 was not significant at the .2 level. The distribution of the observed frequencies did not differ significantly from the expected distribution. The t-test bears out the chi-square test (except for Family 2). From the data obtained, the hypothesis must be retained for the observed frequency distribution and for individual Families 1, 3, and 4.

Null Hypothesis 6. Among disadvantaged families, there is no significant difference in the total number of negative nonverbal communicative acts per task. Both the chi-square goodness-of-fit test and the t-test were used to examine the null hypothesis. The observed distribution yielded chi-square values that were significant at the .3 level only. The hypothesis then as a distribution has to be retained. Applying the t-test to the families gave the results shown in Table VI.

TABLE VI
T-VALUES FOR NEGATIVE NONVERBAL ACTS

Family	Mean	Sample Mean	N	t
1	4.60	1.80	5	3.211*
2	1.60	1.80	5	-0.392
3	1.00	1.80	5	-1.032
4	0.00	1.80	3	--

*Significant at .05 level.

The value for Family 1 is significant at the .05 level. The other values are not significant at the .2 level and the fourth value could not be deter-

mined. Therefore, the null hypothesis was retained for Families 2-4 and was rejected for Family 1.

Null Hypothesis 7. Among disadvantaged families, there is no significant difference in the mean frequency of verbal and nonverbal communicative acts per task by the different family members. The t-test was used to test this null hypothesis. The values are shown on Table VII.

TABLE VII
T-VALUES FOR VERBAL AND NONVERBAL ACTS

Family	Mean	Sample Mean	N	t
1	9.00	8.51	5	0.161
2	4.75	8.51	5	-2.000*
3	14.10	8.51	5	1.760
4	6.20	8.51	3	-1.633*

*Significant at .2 level.

The values for Families 2 and 4 are significant at the .2 level and the values for Families 1 and 3 at the .3 and .9 levels respectively. The hypothesis was rejected for Families 2 and 4 and retained for 1 and 3.

Table VIII shows a summary of the t-test results. Family 3 consistently yielded insignificant results. Family 2 yielded the most significant results. See Chapter V for a discussion of reasons for the pattern of results.

TABLE VIII
SUMMARY OF T-VALUES

Family	H3	H4	H5	H6	H7
1	0.689	0.402	-0.402	3.211*	0.161
2	-4.000*	-1.000	-1.850*	-0.392	-2.000*
3	0.114	0.700	0.506	-1.032	1.760
4	-0.239	-0.456	-0.100	---	-1.633*

*Significant at the .2 level.

Generally, the t-tests gave a more detailed method of testing the hypothesis than the chi-square goodness-of-fit test. As stated before, all tests are biased by the small sample, even though the t-test can be used with any size sample. The means are still influenced by an extraordinarily large datum.

II. DISCUSSION OF FINDINGS

The crudest indicators of family interaction used in this research are incorporated in the first and second hypotheses. These hypotheses group the interaction into the two most general categories of interaction -- verbal and nonverbal communications. The dimension of interaction about which these statements hypothesize is volume of interaction. The chi-square goodness-of-fit tests of these hypotheses indicated that the families differed significantly from the hypothesized pattern; i.e., that they would all have the same volume of communications. They did exhibit statistically significantly different volumes of verbal and nonverbal interaction.

The families that had more than the expected frequencies of verbal interaction did not necessarily have more than the expected frequencies of nonverbal interaction. Family 1 had observed frequencies higher than the expected frequencies in both the verbal and nonverbal categories. Families 2 and 4 are below the hypothesized mean for verbal and nonverbal interaction. Family 3 is above the mean for verbal interaction and below the mean for nonverbal interaction. There may be some error in the expected frequency for nonverbal interaction due to the extraordinarily high mean for Family 1. From the chi-square test which is significant at the .01 level of confidence, the statement can be made with considerable assurance that the variation from the expected frequency is not due to chance. The families have a definitive pattern of interaction in the volume of verbal and nonverbal interaction.

Consideration of the trends of the statistical results yields interesting findings. Family 2 had consistently less volume of interaction in all categories. The frequencies of positive verbal and nonverbal communications and of verbal and nonverbal communications of each member were significantly less. Family 1 showed consistently more communications in all categories except that of negative verbal communications. Only the frequencies of verbal and nonverbal communications in general and negative nonverbal communications in particular were significantly higher, however. Family 3 had significantly higher frequency of verbal acts and lower nonverbal acts. Family 4 exhibited a trend of fewer communicative acts in all categories. The means for the family were only significant in the broadest categories of verbal and nonverbal interaction as a whole family and verbal and nonverbal interaction of each member of each task.

In order for individual family means to be significantly different from the mean of the population of families, two things are required: (1) there must be a difference between the means that when coupled with (2) will yield significant values when subjected to the t-test; and (2) the standard error of the mean must be sufficiently small. In this research, a significant difference in a family's pattern of interaction on one task could cause a high error in the mean. This usually rendered the t-value insignificant. The question, of course, is whether the interaction pattern of the family is responsible for the anomaly. The method of observation, difficulty of discerning between categories, and other experimental factors might be other causes.

Thus the major finding is that the patterns of interaction of the families can be considered unique mainly in the broadest sense; namely, in the volume of verbal and nonverbal interaction.

III. LIMITATIONS OF THE METHODOLOGY

Two different types of tasks were utilized in this research. The first four were intellectual decisions to be made by the family. The fifth was a physical task which required different kinds of decision-making. Since the tasks were grouped in the treatment of the data and treated as averages, the tasks would ideally be similar -- at least in the types of decisions required to complete them. That should be done at least until it is determined that the basic interaction pattern of a family does not change from one kind of task to another. This is a topic for further research.

The categories yielding the most meaningful results were the broad categories of verbal and nonverbal communications. More practice in analyzing

interaction may have led to more meaningful categorization in the more specific categories. Also, additional judges would be desirable to verify the reliability of the categorizations. A larger number of subjects would also yield more reliable results. Greater control of the composition and socioeconomic variables of the families would give greater confidence in the findings. Also some control over the variations in interaction caused by the family knowing it is being observed would be desirable. For example, several observation sessions would allow the family to become more comfortable and relaxed and, consequently, more "natural" in communicating.

CHAPTER V

CONCLUSIONS OF THE RESEARCH

The objective of the research was to observe and compare the interaction of four disadvantaged families from a small town in northeast Kansas using videotape. From symbolic interaction theory, the hypothesis was made that the families would differ significantly in their interaction patterns. The families were given five tasks to complete and were videotaped while they were completing the tasks. The videotapes were analyzed by a judge who placed the discernable acts of communication in categories of interaction which were based on Bales' Interaction Process Analysis. The data obtained from the analysis were subjected to the chi-square goodness-of-fit and the t-test. The following section presents the significant findings at the .2 level of confidence.

I. SUMMARY OF FINDINGS

Null hypothesis 1. Among disadvantaged families there is no significant difference in the mean total number of verbal communicative acts per task. Chi-square analysis yielded results significant at the .01 level, allowing the null hypothesis to be rejected. The conclusion is that the families differed significantly from a uniform distribution of verbal communicative acts.

Null hypothesis 2. Among disadvantaged families, there is no significant difference in the mean total number of nonverbal communicative acts per task. The chi-square value was also significant at the .01 level of confidence. Rejecting the null hypothesis means the families had definitive

patterns of nonverbal interaction along the dimension of frequency of acts.

Null hypothesis 3. Among disadvantaged families, there is no significant difference in the mean total number of positive nonverbal communicative acts per task. Family 2 exhibited significantly fewer positive nonverbal interactions than the hypothesized population mean. It was the only family for which the hypothesis could be rejected at the .2 level.

Null hypothesis 4. Among disadvantaged families, there is no significant difference in the mean total number of positive verbal communicative acts per task. The hypothesis had to be retained for all of the families.

Null hypothesis 5. Among disadvantaged families, there is no significant difference in the mean total number of negative verbal communicative acts per task. The hypothesis was rejected for Family 2 only, indicating it had significantly fewer negative verbal interactions.

Null hypothesis 6. Among disadvantaged families, there is no significant difference in the total number of negative nonverbal communicative acts per task. Family 1 had a significantly greater mean of negative nonverbal acts than the hypothesized population mean. It was the only family for which the hypothesis could be rejected at the .2 level of significance.

Null hypothesis 7. Among disadvantaged families, there is no significant difference in the mean frequency of verbal and nonverbal communicative acts per task by the different family members. Families 2 and 4 had lower mean frequencies of verbal and nonverbal acts per family member on each task. The hypothesis was retained for the other two families.

The broadest measures of family interaction -- total verbal and total nonverbal acts -- gave results consistent with the symbolic interaction theory of family interaction. The families differed significantly in the

frequency of verbal and nonverbal communications. Family 2 tended toward less interaction than the population mean. Families 1 and 3 tended toward more interaction than the population mean, but in most cases the tendency could be attributed to chance. The same could be said about Family 4 which tended toward less interaction on the tasks.

II. IMPLICATIONS

The significant difference found in the one dimension of family interaction patterns studied here -- volume of interaction -- has implications for several areas dealing with the family.

First, the practice of stereotyping disadvantaged families may be wholly erroneous. Obviously if disadvantaged families are found to differ significantly from one another in the way they interact, any attempt to group them in describing their functioning is on very unsteady ground.

Another practice of stereotyping is called into question by the findings of this research. Many family service practitioners are quick to base their diagnosis of a family's difficulty on preconceived categories of problems. This can be a very unsound procedure. Each family interacts differently and, therefore, any diagnosis must be based on a very thorough knowledge of the family's situation. The diagnosis may not even lend itself to any of the common categories of problems. A more meaningful procedure might be to see the family interacting and determine from such observation where the pattern which has developed might be leading to difficulty for one or several of the family members. This would lead to much more imaginative and useful methods of helping families function more adequately.

Another common procedure used in treating families can be questioned after consideration of the theory and research presented here. Practitioners often single out a part of the family for treatment. Often this limits, from the outset, the ability of the practitioner to see the total picture of the problem. A simplistic, but very real, example is the school psychologist who struggles to help a disturbed child whose parents are on the verge of divorce. The attempt is almost certainly futile unless the parents can be brought into the treatment process. Of course, in the case of public education, major institutional changes need to occur to make it possible to include the total family in the educational process. But if the family and its members are going to be assisted meaningfully in their functions, such institutional changes must occur not only in education, but also in the full range of services to families and children.

The structure of community services to families and children often reflect a lack of consideration of the family as a unit. Many specialized services exist, each a separate and, often times, unrelated entity. Few communities have a system of services organized to treat the "whole" family. One agency is usually for the children and another for the parents and they often do not work together. Truly meaningful help for families requires that the community's services be interrelated.

The research presented here demonstrated the workability of direct observation of family interaction through videotaping. Furthermore, it demonstrated the feasibility of observing the total family unit. The ability to record both verbal and nonverbal communication is an advantage which makes

videotape desirable over other types of direct observation. The research presented indicated that nonverbal interaction is a quantifiable part of a family's communication; therefore, research which leaves out that dimension is incomplete and may lead to erroneous findings.

Videotape permits the researcher to view the same sequence of interaction repeatedly to assure a total picture of the interaction is obtained and verified. The procedure also allows intense study of each individual's mode of interacting. While it was not done here, the data obtained in this research would permit a detailed analysis of each family member's participation in the interaction, thus yielding a more complete picture of the families' modes of communicating.

Videotape has been used by several practitioners in treating families, for example, Minuchin and others (1967). This research would seem to verify the desirability of using videotape in the helping situation. It would permit the therapist to review in much more complete detail the events of a session with a family. It would allow him to not only see the interaction of the family, but also to see his interaction with the family -- an invaluable asset.

Thus, the research presented here has implications for the practitioner as he makes decisions about whether a segment of the family or the family unit should receive treatment and as he considers new ways to observe and treat a family. Also the methodology of using videotape leads to serious speculation about how a practitioner can see his own interaction more objectively. The research also provides some direction for the improvement of public and private institutions which serve families and children. The family unit must be given priority consideration in the design of social

service systems.

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APPENDIX

**THIS BOOK
CONTAINS
NUMEROUS PAGES
WITH DIAGRAMS
THAT ARE CROOKED
COMPARED TO THE
REST OF THE
INFORMATION ON
THE PAGE.**

**THIS IS AS
RECEIVED FROM
CUSTOMER.**

TABLE IX

EXAMPLE OF THE METHOD OF TABULATING DATA OF A FAMILY

FAMILY 3

Task 1

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
<u>Initiations</u>									
M	~~NI~~ IIII	~~NI~~ NI		III					28
1	I	II		III	I	I	I		9
2	III	III		IIII	I		I		12
A									
T-3	13	21		10	2	1	2		49
<u>Receptions</u>									
T-2									
M	IIII	~~NI~~		~~NI~~ II	II	I	II		21
1	II	~~NI~~		II					9
2	III	~~NI~~ I		I					10
A	IIII	~~NI~~							9
T-4	13	21		10	2	1	2		49

TABLE IX (continued)

Task 2

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M		<del> </del>							13
1									5
2									7
A									
T-3	6			8					25
	<u>Receptions</u>								
	T-2								
M		<del> </del>							12
1									
2									6
A									7
T-4	6			8					25

TABLE IX (CONTINUED)

Task 3

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M									8
1									2
2									3
A	1								1
T-3	6	8							14
	<u>Receptions</u>								
	T-2								
M	1								6
1	1								1
2									4
A									3
T-4	6	8							14

TABLE IX (continued)

Task 4, Question #1

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M	I	~~II~~ I		I					8
1	II	II							4
2	II	III							5
A									
T-3	5	II		I					17
	<u>Receptions</u>								
	T-2								
M	IIII	I							5
1		II							2
2		III							3
A	I	~~II~~		I					7
T-4	5	II		I					17

TABLE IX (continued)

Task 4, Question #2

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
<u>Initiations</u>									
M	I	IIII							5
1	II	III		II	II				9
2	II	I		I	II				6
A									
T-3	5	8		3	4				20
<u>Receptions</u>									
T-2									
M	II	II		III	II				9
1	I	II			I				4
2	I	I			I				3
A	I	III							4
T-4	5	8		3	4				20

TABLE IX (continued)

Task 4, Question #3

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M	I	III		I	II				7
1	II	II							4
2	II	I							3
A									
T-3	5	6		I	2				14
	<u>Receptions</u>								
	T-2								
M	III	III							7
1	I	II			I				4
2									
A		I		I	I				3
T-4	5	6		I	2				14

TABLE IX (continued)

Task 4, Question #4

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M	1				1				5
1						1			5
2				1					6
A									
T-3	1	3		10	1	1			16
	<u>Receptions</u>								
	T-2								
M									4
1		1							5
2		1							3
A	1	1			1	1			4
T-4	1	3		10	1	1			16

TABLE IX (continued)

Task 4, Question #5

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M	I	II			I				4
1	I	I							2
2		I		III		I			5
A									
T-3	2	4		3	I	I			II
	<u>Receptions</u>								
	T-2								
M				II		I			3
1									
2	II	II			I				5
A		II		I					3
T-4	2	4		3	I	I			II

TABLE IX (continued)

Task 4, Question #6

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M									9
1									8
2									4
A									
T-3	7	2		9	1	2			21
	<u>Receptions</u>								
	T-2								
M									3
1									4
2									9
A									5
T-4	7	2		9	1	2			21

TABLE IX (continued)

Task 5, Attempt 1

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M	11	~~11~~ III							10
1	11	I			I		I		5
2							11		2
A									
T-3	4	9			I		3		17
	<u>Receptions</u>								
	T-2								
M	11				I		I		4
1	I	I							2
2									
A	I	~~11~~ III					11		11
T-4	4	9			I		3		17

TABLE IX (continued)

Task 5, Attempt 2

Category of Interaction

Family Member	1	2	3	4	5	6	7	8	T-1
	<u>Initiations</u>								
M	11	111							5
1	1	11					1		4
2							1		1
A									
T-3	3	5					2		10
	<u>Receptions</u>								
	T-2								
M	1	1							2
1	11	11							4
2		1							1
A		1					11		3
T-4	3	5					2		10

TABLE IX (continued)

Family Member	Task 1	Task 2	Task 3	Task 4	Task 5	Total	$\bar{X}_1$
<u>T-5 = T-6 + T-7 + T-8 + T-9</u>							
M	28	13	8	33	15	97	19.4
1	6	5	2	28	6	47	9.4
2	10	7	3	25	0	45	9.0
Total	44	25	13	86	21	189	37.8
$\bar{X}_2$	14.7	8.3	4.3	28.7	7.0	63.0	
<u>T-6</u>							
M	9	3	5	10	4	31	6.2
1	1	2	0	9	3	15	3.0
2	3	1	0	6	0	10	2.0
Total	13	6	5	25	7	56	11.2
$\bar{X}_2$	4.3	2.0	1.7	8.3	2.3	18.7	
<u>T-7</u>							
M	16	6	3	19	11	55	11.0
1	2	2	2	8	3	17	3.4
2	3	3	3	7	0	16	3.2
Total	21	11	8	34	14	88	17.6
$\bar{X}_2$	7.0	3.7	2.7	11.3	4.7	29.4	
<u>T-8</u>							
M	0	0	0	0	0	0	-
1	0	0	0	0	0	0	-
2	0	0	0	0	0	0	-
Total	0	0	0	0	0	0	-
$\bar{X}_2$	-	-	-	-	-	-	
<u>T-9</u>							
M	3	4	0	4	0	11	2.2
1	3	1	0	11	0	15	3.0
2	4	3	0	12	0	19	3.8
Total	10	8	0	27	0	45	9.0
$\bar{X}_2$	3.3	2.7	-	9.0	-	15.0	

TABLE IX (continued)

Family Member	Task 1	Task 2	Task 3	Task 4	Task 5	Total	$\bar{X}_1$
<u>T-10</u>							
M	0	0	0	5	0	5	1.0
1	1	0	0	2	1	4	0.8
2	1	0	0	2	0	3	0.5
<u>Total</u>	2	0	0	9	1	12	2.4
$\bar{X}_2$	0.7	-	-	3.0	0.3	4.0	
<u>T-11</u>							
M	0	0	0	0	0	0	-
1	1	0	0	2	0	3	0.6
2	0	0	0	2	0	2	0.4
<u>Total</u>	1	0	0	4	0	5	1.0
$\bar{X}_2$	0.3	-	-	1.3	-	1.67	
<u>T-12</u>							
M	0	0	0	5	0	5	1.0
1	2	0	0	4	3	9	1.8
2	1	0	0	4	3	8	1.6
<u>Total</u>	3	0	0	13	6	22	4.4
$\bar{X}_2$	1.0	-	-	4.3	2.0	7.3	
<u>T-13</u>							
M	0	0	0	0	0	0	-
1	0	0	0	0	2	2	0.4
2	0	0	0	0	3	3	0.6
<u>Total</u>	0	0	0	0	5	5	1.0
$\bar{X}_2$	-	-	-	-	1.67	1.67	
<u>T-14</u>							
M	0	0	0	0	0	0	-
1	0	0	0	0	0	0	-
2	0	0	0	0	0	0	-
<u>Total</u>	0	0	0	0	0	0	
$\bar{X}_2$	-	-	-	-	-	-	

TABLE IX (continued)

Key to Symbols Used in Tables

T-1	Total initiations per family member
T-2	Total receptions per family member
T-3	Total initiations of the family in each category
T-4	Total receptions of family in each category
T-5	Total verbal initiations
T-6	Total verbal initiations in Category 1
T-7	Total verbal initiations in Category 2
T-8	Total verbal initiations in Category 3
T-9	Total verbal initiations in Category 4
T-10	Total verbal initiations in Category 5
T-11	Total verbal initiations in Category 6
T-12	Total nonverbal initiations
T-13	Total nonverbal initiations in Category 7
T-14	Total nonverbal initiations in Category 8
$\bar{X}_1$	Mean number of initiations per task
X_2	Mean number of initiations per family member
M	Mother
F	Father
1	First child
2	Second child
3	Third child
4	Fourth child
A	All of family

PATTERNS OF INTERACTION OF DISADVANTAGED FAMILIES

by

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ABSTRACT

The purpose of the research was to observe and analyze the interaction of four disadvantaged families living in the small northeast Kansas town of Elwood. From symbolic interaction theory, the researcher hypothesized the families would differ significantly in their modes of interacting.

The families were videotaped in an Elwood motel room while they completed five tasks designed to induce interaction. Each family's interaction pattern was analyzed using categories of interaction derived from those used by Bales. Verbal and nonverbal responses were recorded showing the category of the responses and the initiators and the recipients of the communicative acts. The results of the analysis were then subjected to two statistical procedures: the chi-square goodness-of-fit and the t-test.

The families differed significantly only in the broadest categories of interaction: total verbal responses and total nonverbal responses. Differences among the families in more specific categories were generally not significant at the 0.2 level.

Videotape was considered by the researcher to be a workable method of observing family interaction. Larger samples, along with refined observer analysis techniques, are needed to produce statistically significant results in the more specific categories of interaction.